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Brake System Conti-Teves MK 60

Trainer Information (GB)

Trainer Information, Brake System Conti-Teves MK60 8.02 (GB)

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1 Brake System Conti-Teves MK 60

1.1 General

The MK 60 ABS system from Conti-Teves is an improved ABS system which is more compact and more efficient than the MK 20 version.

By way of comparison:

The ABS system MK 20 with ESP weighs approx. 3.7 kg

The ABS system MK 60 with ESP now only weighs 2.3 kg

The ABS system is to be introduced into VW -A- platform vehicles in calendar week 36/00

into the Audi TT in calendar week 36/01

The Audi S3 will continue to be fitted with the MK 20.

1.1.1 MK 60 functions:

	FWD	4 Motion	<p>* All vehicles feature the familiar MK 20 ABS/EDL version. No ABS/EDL version MK 60 has been developed for 4 Motion vehicles.</p> <p>** No MSR has been developed in conjunction with 4 Motion.</p>
ABS	MK 60	MK 20*	
TCS	MK 60	MK 20*	
ESP	MK 60	MK 60	
MSR	MK 60	No**	

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1.2 Brake servo

VW requires brake manufacturers to comply with the following functional specifications:
Build-up of 50 bar brake pressure in max. 700 milliseconds at largest wheel brake at – 30°C.
As the intake capacity of the return pump is not always sufficient to generate the necessary pressure at very low temperatures, an admission pressure is required for ESP action. In the ESP system this function is performed by the "Active brake servo".

The MK 60 with ESP operates without an "Active brake servo."

Why?

The admission pressure is achieved by way of larger cross-sections of the brake pipes and tandem brake master cylinder which are designed to ensure optimum flow. The provision of this admission pressure serves to reduce the intake resistance at very low temperatures (below - 30°C).

1.3 Control unit

New control unit: J 104
47-pin connector with modified pin assignment.
The "+" and "-" terminals have been moved apart to prevent short circuits due to the ingress of moisture.

The electric motor is switched by the control unit J 104 by way of an internal link.

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1.4 Self-diagnosis

Self-diagnosis can only be implemented at present using V.A.G 1551/1552 and card version 9.0/ 6.0.

1.5 Brake pressure senders

The brake pressure senders G 201 and G 214 are of redundant design in the ABS/ESP system MK 20.
The ABS/ESP system MK 60 has no brake pressure sender G 214.
The more economical brake pressure sender G 201 is provided with a plausibility feature.

Plausibility check:
When the ignition is switched on, the control unit J 104 interrupts the earth wire to the pressure sender G 201 for 0.5 seconds. This switches the sender to test mode and causes it to run through its entire operating range. If this is OK, the sender returns to its normal function.

The brake pressure sender G 201 operates with a piezo-electric element in which the charge distribution undergoes change. The application of pressure causes a spatial shift in the charge and produces a voltage which is transmitted as a signal to the control unit J 104 (refer to SSP 204, page 27).

Replacement of the brake pressure sender must be followed by zero position compensation as part of the "Starting basic setting" function.

2 Encoding Tables

2.1 Encoding table for ABS with control unit identification number 1C0 907 379 C

Engine	Engine code letters	Vehicle version	Code
1.4l	APE; AXP	Front-wheel drive	01025
1.6l	ATN; AUS; AZD	Front-wheel drive	01025
1.6l	AVU	Front-wheel drive	01025
1.8l	AGN	Front-wheel drive	01025
1.8l	ARZ; AUM	Front-wheel drive	01025
2.0l	APK; AQY	Front-wheel drive	04097
2.0l	AZH	Front-wheel drive	01025
2.3l	AGZ	Front-wheel drive	04097
2.3l	AQN	Front-wheel drive	01025
2.8l	AQP; AUE	Front-wheel drive	01025
1.9l SDI	AGP; AQM	Front-wheel drive	01025
1.9l TDI	AGR; ALH	Front-wheel drive	01025
1.9l TDI	ATD	Front-wheel drive	01025
1.9l TDI	AHF; ASV	Front-wheel drive	01025
1.9l TDI-PD	AJM; AUY	Front-wheel drive	01025
1.9l TDI-PD	ASZ	Front-wheel drive	01025
1.9l TDI-PD	ARL	Front-wheel drive	01025

2.2 Encoding table for ABS/EDL/TCS with control unit identification number 1C0 907 379 D

Engine	Engine code letters	Vehicle version	Code
1.4l	APE; AXP	Front-wheel drive	13313
1.6l	ATN; AUS; AZD	Front-wheel drive	13313
1.6l	AVU	Front-wheel drive	13313
1.8l	AGN	Front-wheel drive	13313
1.8l	ARZ; AUM	Front-wheel drive	13313
2.0l	AZH	Front-wheel drive	21505
2.3l	AQN	Front-wheel drive	21505
2.8l	AQP; AUE	Front-wheel drive	21505
1.9l SDI	AGP; AQM	Front-wheel drive	21505
1.9l TDI	AGR; ALH	Front-wheel drive	21505
1.9l TDI	ATD	Front-wheel drive	21505
1.9l TDI	AHF; ASV	Front-wheel drive	21505
1.9l TDI-PD	AJM; AUY	Front-wheel drive	21505
1.9l TDI-PD	ASZ	Front-wheel drive	21505
1.9l TDI-PD	ARL	Front-wheel drive	21505

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2.3 Encoding table for ABS/EDL/TCS/ESP with control unit identification number 1C0 907 379 E

Engine	Engine code letters	Brake version	Adverse weather package	Code
1.4l	APE; AXP	FS III	no	11266
			yes	11394
1.6l	ATN; AUS; AZD	FS III	no	11266
			yes	11394
1.6l	AVU	FS III	no	11266
			yes	11394
1.8l	AGN	FS III	no	11266
			yes	11394
1.8l	ARZ; AUM	FS III	no	19970
			yes	20098
2.0l	APK; AQY	FS III	no	22530
			yes	22658
2.0l	AZH	FS III	no	19458
			yes	19586
2.0l	AGZ	FN 3	no	23042
			yes	23170
2.3l	AQN	FN 3	no	19970
			yes	20098
2.8l	AQP; AUE	FN 3	no	19970
			yes	20098

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2.3 Encoding table for ABS/EDL/TCS/ESP with control unit identification number 1C0 907 379 E

Engine	Engine code letters	Brake version	Adverse weather package	Code
1.9l SDI	AGP; AQM	FS III	no	19458
			yes	19586
1.9l TDI	AGR; ALH	FS III	no	19458
			yes	19586
1.9l TDI	ATD	FS III	no	19458
			yes	19586
1.9l TDI	AHF; ASV	FS III	no	19458
			yes	19586
1.9l TDI-PD	AJM; AUY	FS III	no	19458
			yes	19586
1.9l TDI-PD	ASZ	FS III	no	19458
			yes	19586
1.9l TDI-PD	ARL	FN 3	no	19970
			yes	20098

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2.4 Encoding table for ABS/EDL/TCS/ESP Four-wheel drive vehicles with Haldex coupling with control unit identification number 1C0 907 379 F

Engine	Engine code letters	Brake version	Adverse weather package	Code
1.8l	AGN	FS III	no	14342
			yes	14470
1.8l	ARZ; AUM	FN 3	no	23046
			yes	23174
2.0l	AZH	FS III	no	22534
			yes	22662
2.8l	AQP; AUE	FN 3	no	23046
			yes	23174
1.9l TDI	AGR; ALH	FS III	no	22534
			yes	22662
1.9l TDI	ATD	FS III	no	22534
			yes	22662
1.9l TDI-PD	AJM; AUY	FS III	no	22534
			yes	22662
1.9l TDI-PD	ASZ	FS III	no	22534
			yes	22662
1.9l TDI-PD	ARL	FN 3	no	23046
			yes	23174

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