► NO COMMUNICATION :

► 1) CONTROL UNIT POWER SUPPLY :

- Verify for: Low battery voltage

- Verify that the diagnostic cable is properly connected to the diagnostic socket and to the computer port.

- Bad power or ground circuits on the diagnostic socket

Inspect the diagnostic socket for:

- broken pins
- missing pins
- damaged pins
- wiring harness damage

- Verify on all the power and the ground contacts (corrosion, etc….)

- Verify the Communication port setting from the computer

► 2) CABLE HARNASS :

- Disconnect the connectors and:

- Inspect the Control Unit

- Inspect for broken wiring connections

- Inspect for loose wiring connections

- Verify each power ground circuit to the module

- Verify the resistance between connectors and the ground

► 3) CONTROL UNIT CODING :

- Verify the control unit coding and the vehicle equipment. - If necessary change the control unit configuration

► 4 CAN BUS :

A) Possible cause and remedy:

If several fault codes regarding CAN communication have been stored, the fault Is most likely caused by :

- An open circuit in voltage supply to the control units involved.
- An open circuit or short circuit of the CAN wires.
- The connector sleeves of the CAN bus.

If CAN communication between a specific control unit and at least one other control unit is fault free, there is no fault at the CAN element of the specific control unit.

In this case :

- Read the error memory of control unit to which there is a fault in the communication. If a CAN fault regarding communication with the specific control unit is present in this control unit, then first of all test CAN lines between the two control units.

B) Possible CAN error codes:

- CAN Timeout Error

A CAN timeout error code is stored when a CAN input signal is missing. This can be caused by the transmitter control unit or by the CAN networking itself.

Example error code: No CAN message was received from the CDI control unit

- Bus Off Error

A Bus Off error codes is stored; when the control unit cannot send amount of messages to the CAN bus or that the messages sent are incomplete. The control unit then switches off for a short time from the CAN bus.

Example error code: CAN controller : CAN bus OFF

- CAN functional Error

A functional CAN error code is stored because of an implausible CAN input signal. The cause of this is not the CAN networking, but the transmitter control unit or its sensors.

Example error code : CAN controller : CAN signal from CDI control unit is implausible

- BUS wake-up event

An event that wakes up the CAN bus without reason is designated a bus wake-up event. The cause of this is not the CAN networking, but the transmitter control unit or its sensors. Further possible causes of error:
- Magnetic fields caused by nearby high-voltage installations, railroad installations or power plants.
- Magnetic field can radiate on to lines and control units in rare cases and cause undefined behaviour in the control units.
-A special CAN tool can be used to log bus wake-up events, bus keep awake events and other signals.

- BUS keep awake event

When a control unit keeps communication on the bus awake without reason, this is designated a bus keep awake event.
The cause of this is not the CAN networking, but the transmitter control unit or its sensors.
Further possible causes of error:
- Magnetic fields caused by nearby high-voltage installations, railroad installations or power plants.
- Magnetic field can radiate on to lines and control units in rare cases and cause undefined behaviour in the control units.
-A special CAN tool can be used to log bus wake-up events, bus keep awake events and other signals.

C Possible Aids and their usage.

- Multimeter

For voltage and resistance measurement.

- Measuring systems

For graphic representation of CAN signal and voltage levels. The specified characteristics shown are used to recognize changed CAN voltage levels, which can be caused by faulty CAN components.

► Menu Buttons (1/2) :

Back ► To return to the previous screen

Main ► To return to the Main Menu

Start ► To start the total diagnosis

Help ► Help file

Scan ► To start scanning the error memory

Erase Codes ► To erase the error codes

No Com. ► No Communication with the vehicle

► Menu Buttons (2/2) :

Save ► To save the data to disk

Print ► To print the data on paper

Exit ► To exit the program

► CONTROL UNIT ABRIVIATIONS (1/2

German	English	Description
AB	AB	Airbag Control Unit
ABR	ABR	Adaptive Brake System
ABS	ABS	ABS Control Unit
AGW	AGW	Audio Gateway Control Unit
AHE	AHE	Trailer Recognition Control Unit
AIRCO	AIRCO	Air conditioning Control Unit
AIRMatic	AIRMatic	Airmatic System Control Unit
AKR	AKR	Semi Automatic Gear Box Control Unit W168
BAS	BAS	BAS Control Unit
CDI	CDI	Common Rail Diesel Engine Control Unit
Command	Command	Command
DBE	OCP	Overhead Control Panel Control Unit
EDW	ATA	Anti Theft Alarm Control Unit
EGS	EGS	Electronic Gearbox Control Unit
ERE	DFI	Diesel Engine Control Unit
ESP	ESP	ESP Control Unit
ESVVL	ESAFL	Electronic Seat Adjustment Control Unit
ESVVR	ESAFL	Electronic Seat Adjustment Control Unit
EVE	IFI	Diesel Engine Control Unit
EWM	ESM	Electronic slever Control Unit
EZS	EIS	Electronic Ignition System
FBS	DAS	Drive Authorization Signal Control Unit
HFM	HFM	Petrol Engine Control Unit
KI	IC	Instrument Cluster Control Unit
LWR	HRA	Headlight Range Adjustment Control Unit
ME	ME	Petrol Engine Control Unit
MRM	SCM	Steering Column Module Control Unit
OBF	UCP	Upper Control Panel Control Unit
PMS	PMS	Petrol Engine Control Unit
PSE	PSE	Pneumatic Control Unit
PTS	PTS	Parktronic System Control Unit
SAM	SAM	Signal Acquisition Module Control Unit
SAMH	SAMR	Rear Signal Acquisition Module Control Unit
SAMV	SAMF	Front Signal Acquisition Module Control Unit

SAMVL	**SAMFL**	Front Left Signal Acquisition Module Control Unit
SAMVR	**SAMFR**	Front Right Signal Acquisition Module Control Unit
SBC	**SBC**	Sensitive Brake Control Unit
SIH	**HS**	Heated Seats Control Unit
SSG	**SSG**	Sprintshift Control Unit

System	**System**	System Control Unit
TSG	**TSG**	Door Control Unit
TSGHL	**DCMRL**	Rear Left Door Control Unit
TSGHR	**DCMRR**	Rear Right Door Control Unit
TSGVL	**DCMFL**	Front Left Door Control Unit
TSGVR	**DCMFR**	Front Right Door Control Unit
UBF	**LCP**	Lower Control Panel Control Unit
UHI	**CTEL**	Telephone
UVS	**RST**	Roadster Roof Control Unit
VD	**VD**	Vario Roof Control Unit
ZGW	**CGW**	Central Gateway Control Unit