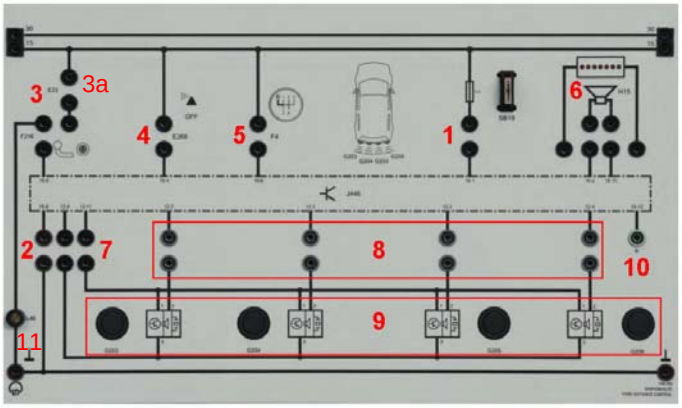
PHYSIK CHEMIE BIOLOGIE TECHNIK

LD DIDACTIC

04/11-W2010-Wei

User manual 739 750



Park distance control (739 750)

1	Connector terminal 15
2	Ground connection 31
3	Connector trailer or rear fog light
3a	Power supply for rear fog light
4	Deactivation of PDC
5	Reverse gear
6	Speaker or optical display
7	Sensor power supply
8	Sensor signals 1 to 4
9	Ultra sonic sensors
10	Diagnosis connector
11	Rear Fog light

1 Usage

The unit "Park distance control" is used for didactic purposes of showing the operation and function of such a system as used in real vehicles.

Safety notes

- Prior to the usage of the unit make sure that the ground is connected correctly!
- Only use safety cables and plugs!

2 Scope of delivery

Training panel park distance control (PDC)

3 Technical data

- Distance min/max: 0 ... 254 cm
- Self diagnosis protocol: KW 1281
- Power supply V_B = +12...+15 $V_=$

4 Set up and operation

Set up

The system consists of an original ECU J446, 4 40-kHz ultrasonic sensors and an optical and acoustic display.

Function

The unit requires 12 V=.

Operation

Plug in the bridging plugs 1, 2, 3a, 4, 6, 7 and 8.
After selecting the reverse gear by plugging the appropriate bridging plug (5) the system is activated. By unplugging the system is deactivated again.
If the plug for automatic trailer detection (3) is inserted vertically the system cannot be activated because the trailer would be recognized as an obstacle. Change the bridging plug 3 into a horizontal position to switch on the rear fog light (11).
If the plug for deactivation (4) is not inserted the system cannot be switched on.
If the system is activated it detects obstacles and displays the distance by means of LEDs (plug 6 in a horizontal position) or loudspeaker (plug 6 in a vertical position).
The bigger the distance between an obstacle and the rear car the more LEDs lights up respectively the bigger the time between two acoustic signals.

Note:
Pay attention that there is absolutely nothing within a radius of 2 m in front of the sensors - even a cable in front or beside an sensor can interfere with them.

Reducing the distance between the obstacle and the sensors the LEDs turns off one after another from the outer to the inner respectively the time between two signal sounds become shorter.

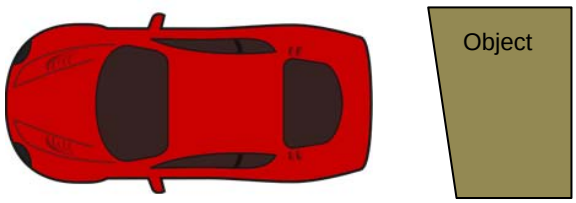


Figure 1

5 Self diagnosis

The ECU is by means of the K line self diagnosis capable. Use a diagnosis interface connected to the output 10 for the following diagnosis functions:

- Reading errors (#02)
- Erasing the fault memory
- Displaying actual data (#08)
- Activating actuators (#03)
- Adaptation (#10)
- Coding (#07)

Data display
The following measurement values are available:
Group 001 – Distance of sensors 1 to 4
Group 002 – System 1
Group 003 – System 2
Group 004 – Oscillation time
Group 080 – System information

Actuator test
The sound output can be triggered.

Adaptation
The following parameters can be adapted:
Channel 01 – Volume (0…7)
Channel 02 – Frequency (0 = 500 Hz, 1 = 660 Hz, 2 = 800 Hz, 3 = 1000 Hz und 4 = 2000 Hz)

Coding
?xxxx: Trailer
0 = no trailer
1 = trailer
x?xxx: Gear
0 = Manual gear
1 = Automatic gear
xx?xx: Country
1 = Rest of the world
xxx?x: Chassis
0 = Limousine
3 = Transporter/Multivan
xxxx?: Model
2 = VW Polo (9N)
7 = VW Transporter/Multivan (7H)