



OES/AM Parking assistance systems 0390 – Park Master product platform

Parking assistance systems provide effective aid during low speed manoeuvres as they alert the driver to unseen obstacles behind or in front of the vehicle. No need to point out how useful they can be in preventing collisions with objects or persons and their consequential damages.

Cobra's special care for road safety issues has led to intense R&D activities in this field. The result is a significant enhancement of both the performance reliability and the design aesthetics.

The 0390 parking assistance systems come with small diameter (17mm) "flush mount" ultrasonic sensors, that can be installed from the inside of the bumper and adjusted to suit its thickness, so that they have a smart OE look even if retrofitted. This is possible thanks to a unique design solution, for which Cobra have filed a European Patent application. The sensors can be mounted on either bumper (front/rear) and be painted to match the colour of the vehicle body.

Deriving directly from OEM/OES application experience, the compact and high performance central unit includes a number of additional features such as advanced HMI capability: serial line available for future applications including connection with infotainment systems and HMI display devices

0390

Description:

parking assistance system. Senses the presence of obstacles behind or in front of the vehicle during low speed manoeuvres and warns the user with audible signals

Key features:

the standard kit configuration consists of a control unit, a loudspeaker and 2 or 4 ultrasonic sensors, along with the necessary wiring harness

the front parking assistance system detects obstacles in front of the vehicle starting from 70cm;
the rear parking assistance system detects obstacles behind the vehicle from 160cm

the frequency of the warning signals increases as the vehicle gets closer to the obstacle. When the obstacle is in the maximum alert zone (less than 30cm from the vehicle) the beeps turns into a constant tone



Benefits

- ✓ OE style solution: flush mount look, but easy clip-on installation enabling to maintain the same easy procedure
- ✓ For perfect finish, dedicated installation tools (punch tool and drilling tool) are available
- ✓ Advanced HMI capability
- ✓ Additional functions: output for "mute" function (to reduce the volume of the radio when the system is active), negative input for tow bar (to optimise performance for customers using the tow bar occasionally)
- ✓ More activation/deactivation possibilities for the front system: reverse light (with time-out), odometer, push-button
- ✓ A number of configuration parameters can be changed without necessarily using the programming tool (volume, sensitivity, sensor distance)

Standard kit components (aftermarket)

Control unit

4 or 2 rear sensors

Universal wiring harness

User and installation manuals

Additional vehicle-specific kit components

(development on request for oes applications)

Dedicated wiring harness

Dedicated user and installation manuals

On/off switch (front parking system)

Sensor painting

Operation

Front parking assistance: detects obstacles in front of the vehicle within a range of 60 down to 30 cm and warns the user with audible signals. The frequency of the signal increases as the vehicle gets closer to the obstacle. When the obstacle is in the maximum alert zone (under 30cm from the vehicle) the beeps turns into a constant tone. The range is adjustable via serial line by external tester.

Audio warning is complemented by visual indications if the relevant output is interfaced with an in-vehicle graphic display.

Detection is enabled by the engaging of the reverse gear. When reverse gear is off the system will remain active for 3s. if no obstacle is detected. If the odometer is enabled, when the vehicle's speed is lower than 20 Km/h and disables itself automatically as this speed is exceeded. If required, manual activation / deactivation is possible by means of a push-button switch. A led output is available to signal the system status.

Rear parking assistance: detects obstacles behind the vehicle within starting from 160 cm and warns the user with audible signals.

The frequency of the signals increases as the vehicle gets closer to the obstacle. When the obstacle is in the maximum alert zone (under 30cm from the vehicle) the beep turns into a constant tone. The range is adjustable via serial line by external tester.

Audio warning is complemented by visual indications if the relevant output is interfaced with an in-vehicle graphic display.

Detection is activated automatically when reverse gear is engaged. If required, manual deactivation is possible by means of a push-button switch. A led output is available to signal the system status.

A negative input is provide to avoid false

Product data

Nominal operating voltage (VDC): 12

Operating voltage range (VDC): 8 – 16

Control unit operating temperature (°C): - 40 + 85

Current consumption rate (mA): < 20

Control unit dimensions (mm): 60 x 64 x 27

Sensor dimensions (mm):

thickness 0,75

bumper drill hole Ø 20

sensor max Ø 22

Weight (g):

control unit 52

sensor 15

Homologations

ECE-R-10 equivalent to 2006/28/EC Automotive EMC Directive

Standard compliance

ISO 17386 Second Edition (MALSO)

