



# Parking assistance systems 29X platform – Park Master products

The 29X parking assistance system has low and rounded profile and a small diameter (22mm), so that they have a smart OE look even if retrofitted.

The system can be installed on all types of vehicles including motorhomes, passenger cars and commercial vehicles. It is compatible with towing balls and spare wheels.

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

The sensors can be mounted on either bumper (front /rear) and be painted to match the colour of the vehicle body. 2 o 3 sensors rear applications can be made available upon request.



## Key features:

- ✓ control unit, 4 sensors rear parking assistance system working on ultrasonic technology
- ✓ comfort and safety device that transmits to the driver a warning signal the closer he gets to the obstacle

## **Description:**

AMR294 – rear

parking assistance system for rear bumper plug-in installation suitable for all vehicles

## **Benefits**

- OE style solution; flush mount look, but easy clip-on installation enabling to maintain the same easy procedure
- Small sensors 22 mm Ø

For perfect finish, dedicated installation tools (punch tool and drilling tool) are available

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 possible for the front system: reverse light (with time-out), odometer, push-button

A number of configuration parameters can be changed without necessarly using the programming tool (volume, sensitivity, sensor distance)

# **Product positioning**

**Installation time** 1 to 5 (1=20 minutes)

Safety 1 to 5

Comfort 1 to 5



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#### Kit main parts

Central unit

4 rear sensors

Universal wiring harness

Loudspeaker

User and installation manual

## **Working features**

**Product data** 

Operating voltage (VDC):

Current consumption (mA):

Central unit dimensions (mm):

Sensors dimensions (mm):

Ø bumper hole

Weight (g): central unit

sensor

Ø max of the sensor

Origin: made in Italy Warranty: 24 months

Nominal operating voltage (VDC):

Central unit max. operating temperature (° C):

Central unit min. operating temperature (° C):

It detects obstacles to the rear of the vehicle

An audible warning signal, increasing in frequency, is transmitted to the driver the closer he gets to the obstacle. When the obstacle is in the maximum alert zone (under 30 cm from the vehicle) the beeps turns into a constant tone. The range is adjustable via serial line by external tester. Detection is activated automatically when reverse gear is engaged

| There are 3 ale | rt zones:                                    |
|-----------------|--|
| 160 - 120 cm    | safety zone                                  |
| 120 - 30 cm     | alert zone                                   |
| <30 cm          | maximum alert zone (the beeping is constant) |



# Standard compliance

ISO 17386 Second edition 2010/03/15 (MALSO)

## **Homologations**

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

#### Package

| Carton box                        |                |
|-----------------------------------|----------------|
| Single package dimensions (mm)    | 186 x 143 x 85 |
| Single package weight (g):        | 390            |
| Pieces per shipping package (n°): | 16             |

12

+ 85

- 40

< 35 (at 12 V DC)

22

22

52 15

60 x 62 x 22

+ 8 to + 16





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The system can be installed on all types of vehicles including motorhomes, passenger cars and commercial vehicles. It is compatible with towing balls and spare wheels.

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

The sensors can be mounted on either bumper (front /rear) and be painted to match the colour of the vehicle body. 2 o 3 sensors rear applications can be made available upon request.

# AMF294 – front



## Key features:

- ✓ control unit, 4 sensors front parking assistance system working on ultrasonic technology
- comfort and safety device that transmits to the driver a warning signal the closer he gets to the obstacle

## **Description:**

parking assistance system for rear bumper plug-in installation suitable for all vehicles

## **Benefits**

- OE style solution; flush mount look, but easy clip-on installation enabling to maintain the same easy procedure
- ᄼ Small sensors 22 mm Ø
- For perfect finish, dedicated installation tools (punch tool and drilling tool) are available
- 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 possible for the front system: reverse light (with time-out), odometer, push-button
  - A number of configuration parameters can be changed without necessarly using the programming tool (volume, sensitivity, sensor distance)

## **Product positioning**

# Installation time

1 to 5 (1=20 minutes)

Safety 1 to 5

Comfort 1 to 5



#### Kit main parts

Central unit

4 front sensors

Universal wiring harness

Loudspeaker

User and installation manual

## Working features

It detects obstacles to the front of the vehicle

An audible warning signal, increasing in frequency, is transmitted to the driver the closer he gets to the obstacle. When the obstacle is in the maximum alert zone (under 30 cm from the vehicle) the beeps turns into a constant tone. The range is adjustable via serial line by external tester. Detection is activated automatically when reverse gear is engaged. 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.

There are 2 alert zones:

70 - 30 cm alert zone

30 - 0 cm maximum alert zone (the beeping is constant)



## **Product data**

| Nominal operating voltage (VDC):                                 | 12                   |
|--|----------------------|
| Operating voltage (VDC):   | + 8 to + 16          |
| Central unit max. operating temperature (° C):                   | + 85                 |
| Central unit min. operating temperature (° C):                   | - 40                 |
| Current consumption (mA):  | < 35<br>(at 12 V DC) |
| Central unit dimensions (mm):                                    | 60 x 62 x 22         |
| Sensors dimensions (mm):<br>Ø bumper hole<br>Ø max of the sensor | 22<br>22             |
| Weight (g):<br>central unit<br>sensor                            | 52<br>15             |
| Origin: made in Italy  |                      |

Warranty: 24 months

## **Standard compliance**

ISO 17386 Second edition 2010/03/15 (MALSO)

#### **Homologations**

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

#### Package

Carton box

| Single package dimensions (mm) | 186 x 143 x 85 |
|--------------------------------|----------------|
| Single package weight (g):     | 425            |
|                                |                |

Pieces per shipping package ( $n^{\circ}$ ):

16