

LIMITATIONS

There are a small number of precautions to observe to ensure optimum operation and life span of the reverse parking aid.

Avoid spraying the ultrasonic sensor heads with high pressure water cleaner. The water may be forced into the head enclosure and corrode the internal workings.

Avoid applying car polish on the ultrasonic sensor heads. The solvents in the polish may damage the case of the heads and the residue will clog the sound channels.

DISCLAIMER

The manufacturer, retailer and installer accept no responsibility nor liability for damage to the user's vehicle, property or other, caused directly or indirectly through the use of this product.

- This system is not a guarantee in respect of collision avoidance.
- This system should be used purely as an aid and an assistant.
- It is essential that a driver always looks in the direction of travel when reversing.

COMPONENT LOCATIONS

Your Controller Is Mounted:

- Centre of Boot
- Left Hand Side of Boot
- Right Hand side of Boot
- Other _____

Your Sensors Are Mounted:

- Flush in Bumper
- Brackets under Bumper

WARRANTY REGISTRATION

DATE OF INSTALLATION _____

PURCHASED FROM _____

OWNER'S NAME _____

MODEL OF VEHICLE _____ REGO' _____

MODEL OF SYSTEM _____ SERIAL # _____

WARRANTY PERIOD: _____ SIGNED _____



REVERSE PARKING AID SEN-010 USER GUIDE

for 2 and 4 head systems.

DYNAMCO PTY LTD
SECURING VEHICLES WORLDWIDE



Designed and
Engineered in Australia

INTRODUCTION

Congratulations on choosing the SEN-010 reverse parking aid, to assist in the reversing of your vehicle. The sensor provides an audible feedback regarding how close the rear bumper of the car is to a possible obstacle.

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OPERATION

The SEN-010 receives power from the car's reverse lighting circuit, so alerts are heard only when the car has reverse gear engaged.

Four ultrasonic sensor heads are mounted on the rear bumper. The location of each sensor is evenly distributed across the bumper. Each head outputs a sound wave, similar to radar, then measures the time it takes for the returned signal. Greater time equals greater distance.

AUDIO RESPONSE

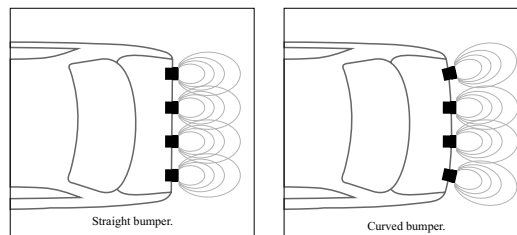
The SEN-010 contains a piezo buzzer to inform the driver of how close the obstacle is. The sound from the piezo buzzer will become more intense as the obstacle becomes closer. The table below details at what distance each level of audible tone at a given distance.

DISTANCE	BEEP per INTERVAL
2.0 - 1.0	1
0.9 - 0.6	2
0.5 - 0.4	3
0.3 - 0.0	Constant

PERFORMANCE VARIATIONS

EFFECTIVE DIRECTION

Physical differences in bumpers like curvatures, behind bumper clearance and bumper thickness may mean installation and performance vary. Ask a friend to help check how far the fields extend out the side of the car. Straight bumpers will cause fields to project straight out from bumper, where as curved bumpers allow the heads to face outwards from the bumper.



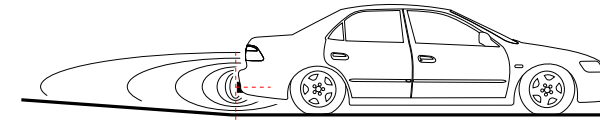
Sensor locations and approximate effective fields.
*4 head version shown, spacing will change with 2 head version.

ENVIRONMENTAL VARIATIONS

Adverse weather conditions such as heavy rain and fog may effect performance.

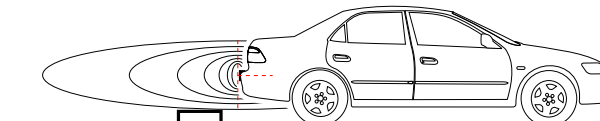
SENSOR HEAD HEIGHT

The height of the sensor heads will also vary the sensor performance. Sensor heads positioned to the lower section of a bumper may be susceptible to reporting alerts caused by dipping driveway entrances / exits, gradients, plants and bushes.



Heads are mounted low, sensor may pick up changes in road surface.

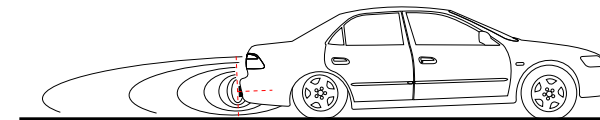
Likewise sensor heads positioned to the higher section of the bumper are less likely to report alerts caused by obstacles that sit below exhaust pipe height i.e. pipes, car park rail guards or mini walls.



Heads mounted high, sensor may miss all low objects.

OBSTACLE SIZE

Large flat obstacles will produce a much more positive sound reflection than thin round objects. A brick wall will be detected easier than a parking meter pole. The wall can be detected at 2m, where as the pole may only be detected at 1m.



Loaded car will angle perfectly mounted heads towards the ground.

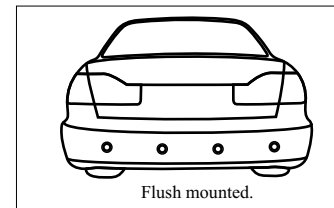
Any protruding objects added to the bumper area after the reverse parking aid is fitted i.e. tow bar, 4WD protection bars / steps, number plate surrounds, 4WD spare wheels and sectional mouldings may impede the ability of the sensor to function and cause false reporting of obstacles.

CAR WEIGHT CHANGES

The performance of the parking aid may be affected by the load weight distribution of the vehicle. A loaded vehicle will sit lower to the ground and/or change the angle of the vehicle. The parking aid sensor heads may report varied measurements.

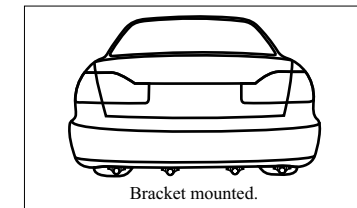
FLUSH OR BRACKET MOUNTING

The standard mounting method for the SEN-010 sensor heads is flush into the bumper, giving a sophisticated factory fitted appearance. When the bumper is not suitable for flush mounting, the installer may have to use the brackets supplied to fit the sensors below the bumper.



Flush mounted.

*4 head version shown, spacing will change with 2 head version.



Bracket mounted.

*4 head version shown, spacing will change with 2 head version.