



DICAN

DICANINC.COM
1 866 884 7569

BRIGADE[®]

Sidescan[®] Predict

BRIGADE®

Detecting vulnerable road users

In recent years, cycling has increased in popularity. Other than providing an enjoyable way to get fit, it can also be a cheaper and often quicker way to commute. The roads are now filled with cyclists but this has led to a rise in road collision accidents involving them. In 2019 there were 846 bicyclists killed in traffic crashes according to the United States Department of Transportation. Americans are increasingly bicycling to commute, for exercise, or just for fun.

Semi trucks pose a disproportionate risk to both pedestrians and cyclists with collisions involving a large vehicle far more likely to prove fatal than those involving a car. Many collisions between cyclists and Semi trucks occur because the driver has limited direct vision (the ability to see what is outside their cab without using indirect means of mirrors or cameras).

Detection systems have helped make both drivers and vulnerable road users aware of the proximity of one another, however, current systems only alert the driver to the presence of an object, even if there is no danger of a collision. This can result in false alarms, leading the driver to become habituated to the warning and potentially rendering the detection system ineffective.



Sidescan®Predict

Brigade's Sidescan®Predict is the next generation of side-detection sensor system, designed for collision avoidance between road vehicles, objects, and vulnerable road users.

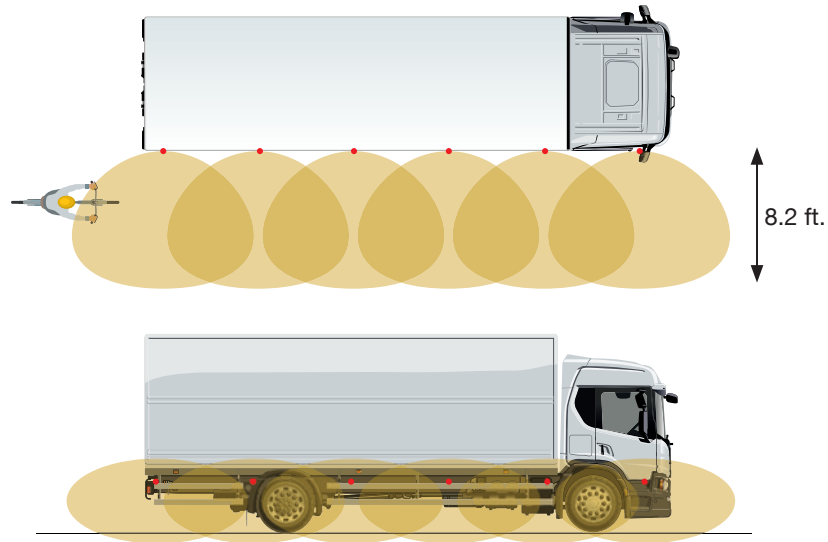
Utilizing ultrasonic technology, this intelligent system predicts if a collision is likely to occur. By analyzing data such as speed, direction, and acceleration of both the vehicle and detected object, and differentiating between static and moving objects, the Sidescan®Predict algorithm assesses the risk and calculates the likelihood of an impact.

Sidescan®Predict instantly alerts the driver to potential dangers via a multi-stage in-cab visual and audible warning system, according to the urgency of the situation - thus minimizing the number of audible alerts and reducing false alarms.

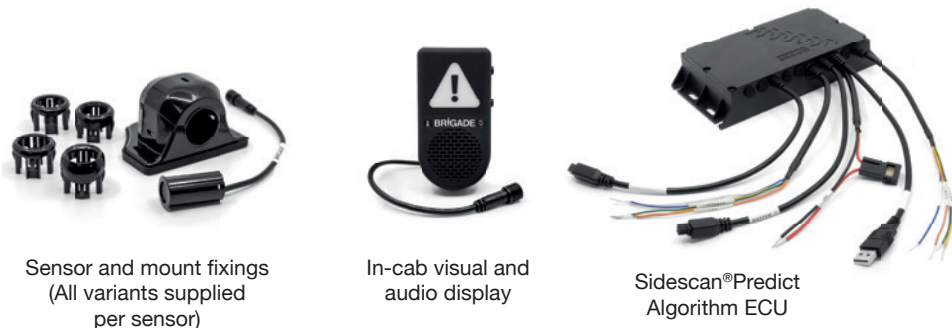
Sidescan®Predict - Calculating the risk

Unique in the market, Sidescan®Predict has been designed and developed by Brigade from concept through to production. It is one of the most technically sophisticated products within our portfolio.

Designed for rigid-bodied vehicles, the system comprises of six ultrasonic sensors fitted along the side of the vehicle to increase safety when turning or low speed maneuvering. Sidescan®Predict detects objects in the nearside blind spot, where cyclists or other VRUs can otherwise go undetected. Each sensor has a maximum detection radius of 8.2 ft.



Sidescan®Predict constantly gathers object detection data such as the distance of an object, cyclist or other VRU from the vehicle, whether moving or stationary, plus additional information such as the speed, direction, acceleration, and turning rate. The data feeds an algorithm to calculate the risk of a collision, which is delivered to the driver as a visual warning, audible warning or both, depending on the severity of the calculation.



Sensor and mount fixings
(All variants supplied
per sensor)

In-cab visual and
audio display

Sidescan®Predict
Algorithm ECU

BRIGADE®

Features

- Reduces false alarms and increases the accuracy of the warning by: Differentiating between static objects like road furniture from moving objects; whether the vehicle is turning or intending to turn by having the turn signal activated; the speed, position, and direction of a VRU.

Example 1



Stationary object not in the
vehicle's path = No driver warning

Example 2



Moving object not in the vehicle's path
= Yellow visual warning. No audible warning

- System in constant operation below 20mph, with or without the turn signals activated.
- Detection area extends up to 8.2 ft. from side of vehicle.
- Auto brightness feature adjusts the display to the lighting conditions in the cab. Manual alarm volume adjustment.
- Can be retrofitted by a trained installer. The configuration software includes multiple system tests to ensure the sensors are positioned and fitted correctly.
- Built-in speed and turn signal switches.
- System can not be activated/deactivated by the driver.
- Environment Learning mode to eliminate false alarms from bodywork that intrudes in the first 3.28 ft. of the detection zone.

1 866 884 7569

DICAN

DICANINC.COM

Sidescan®Predict - Driver notifications

Description of detection and warning

Example of scenario (not limited to)

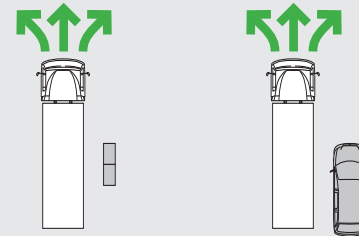
In-cab display warning

1

A static object has been detected

A static object/vehicle/VRU has been detected but is not in the vehicle's path. No danger of collision.

No driver warning.

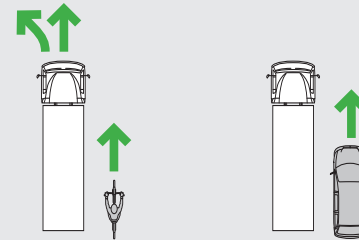


2

A moving object has been detected

A moving vehicle/VRU has been detected but is not in the vehicle's path. Minimal danger of collision.

A yellow visual warning. No audible warning.

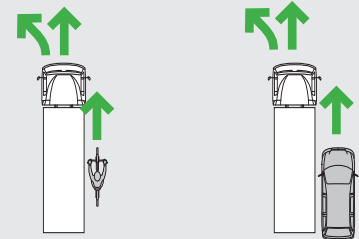


3

A moving object has been detected close to the vehicle

A moving vehicle/VRU has been detected very close to, but not in the path of the vehicle. Minimal danger of collision but alerts the driver to its presence.

A flashing yellow visual warning. No audible warning.

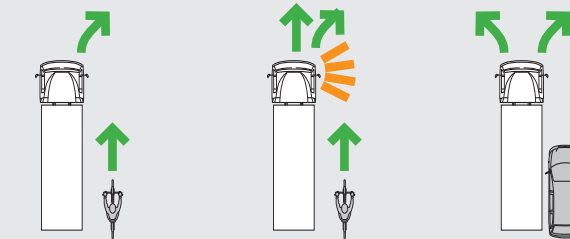


4

Danger of collision

A moving vehicle/VRU or static object has been detected within the path of the vehicle that is turning or is signaling to turn. Alerts the driver to be vigilant as a collision is possible.

A flashing yellow visual warning. A high-pitched audible warning.

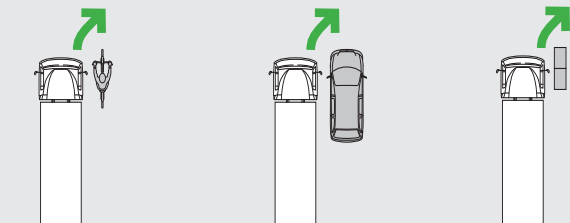


5

Collision predicted

A moving vehicle/VRU or static object has been detected in the direct path of the vehicle that is turning. Alerts the driver to take immediate action as a collision is likely.

A flashing red visual warning. A high-pitched audible warning.



BRIGADE®

About us:

Brigade Electronics is a market leader of safety devices, with solutions to suit all on and off-road vehicles.

Brigade's complementary range of safety devices help prevent collisions by assisting the driver while protecting workers, pedestrians, and cyclists.

Please visit our website for more information, individual specifications and to view our full range of safety solutions.

1 866 884 7569

The logo for Dican, featuring the word "Dican" in a bold, black, sans-serif font. A red swoosh underline is positioned above the letters "i" and "c".

DICANINC.COM