

WHAT ARE YOU DOING TO PROTECT YOUR PEOPLE AND AVOID COLLISIONS?



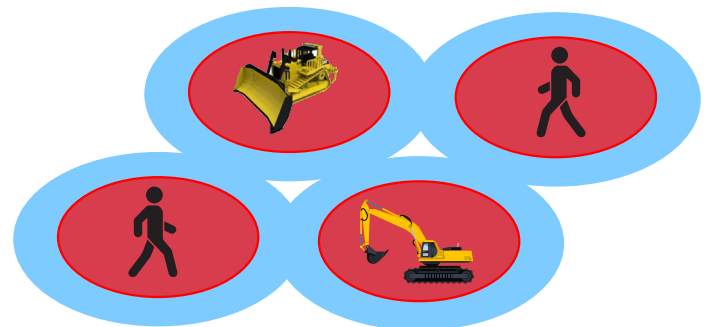
PROXIMITY DETECTION SYSTEMS

FULLY CUSTOMISABLE FOR INDOOR AND OUTDOOR APPLICATIONS

The Blue Electronics Proximity Detection Systems supported by Position Partners can increase safety on site by alerting machine operators, drivers of light vehicles and individuals on foot to their proximity to moving plant on site via small devices fitted to the machine or worn on clothing. Collision awareness technology alerts operators to possible collisions.

The system uses a range of technologies to detect and warn the operator of a potential collision with another vehicle or detection of a worker. Workers wearing a Personal Proximity Device (PPD) are also warned if they get too close to a vehicle fitted with the system.

The system is configurable to meet the customers specific road rules and logs all events and alarms to memory which can be downloaded locally to a USB memory stick or remotely via a modem.



Applications include:

- Vehicle to person protection
- Person to vehicle protection
- Vehicle to vehicle protection
- Vehicle/person to object protection
- Close proximity only detection
- Person tracking
- Adjustable alarm zones
- Points of Interest (POI)
- Event logging
- Optional live tracking and personal protection

WebPortal

The system can be remotely monitored by installing a 3/4G Modem or if a Wifi connection is available, this could potentially be used.

The remote WebPortal allows near real time monitoring, Historical Data Storage and Event & Driver Behaviour Reporting.

The screenshot displays the WebPortal interface. On the left, a Google Map shows the Sydney region with several vehicle icons and their IDs (e.g., 240734, 240937, 240532, 240599, 241127, 240896, 240852). A red banner indicates '241127 is speeding'. Below the map, an 'Events (4/4)' section shows a table of events:

Started	Finished	Duration	Closed	Event rule	Vehicle
7/5/2015 3:06 AM	7/5/2015 3:06 AM	00:31	-	Outside Geofence	240852
7/5/2015 2:15 AM	7/5/2015 2:26 AM	10:16	-	Overspeed Alert	241127
7/5/2015 1:02 AM	7/5/2015 1:02 AM	00:20	-	Outside Geofence	240852
7/5/2015 12:00 AM	7/5/2015 12:01 AM	00:40	-	Outside Geofence	240852

Below the events table, there is a 'Status' section with 'Commands' and 'Vehicle info' tabs. The 'Vehicle info' tab shows the latest messages for vehicle 240852:

Name	Value	Unit	Time
Speed	0.00	km/h	7/5/2015 11:22:38 AM

On the right side of the interface, there is a 'Name' table with columns for Name, Last seen, Track, and Status. Below this is a 'Tracks' section with a table showing track points:

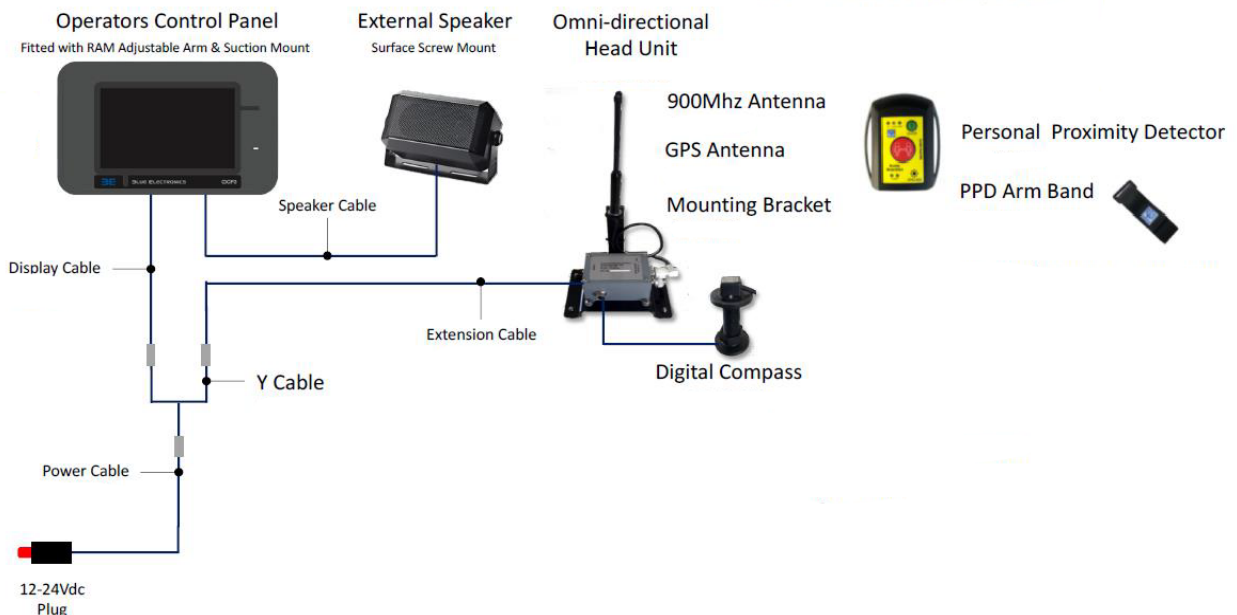
Start	Stop	Dist	Select	Del
7/5/2015 12:33 AM	- 11:55 AM	0 km	<input type="checkbox"/>	<input type="checkbox"/>
7/4/2015 12:15 AM	- 11:31 PM	198 km	<input type="checkbox"/>	<input type="checkbox"/>
7/3/2015 12:17 AM	- 11:14 PM	110 km	<input type="checkbox"/>	<input type="checkbox"/>
7/2/2015 12:04 AM	- 11:17 PM	69 km	<input type="checkbox"/>	<input type="checkbox"/>
7/1/2015 12:14 AM	- 11:03 PM	287 km	<input type="checkbox"/>	<input type="checkbox"/>
6/30/2015 12:27 AM	- 11:12 PM	0 km	<input type="checkbox"/>	<input type="checkbox"/>
6/29/2015 12:40 AM	- 11:27 PM	0 km	<input type="checkbox"/>	<input type="checkbox"/>
6/28/2015 12:05 AM	- 11:40 PM	139 km	<input type="checkbox"/>	<input type="checkbox"/>
6/27/2015 12:02 AM	- 11:05 PM	86 km	<input type="checkbox"/>	<input type="checkbox"/>
6/26/2015 12:18 AM	- 11:57 PM	71 km	<input type="checkbox"/>	<input type="checkbox"/>
6/25/2015 12:55 AM	- 11:17 PM	206 km	<input type="checkbox"/>	<input type="checkbox"/>
6/24/2015 12:02 AM	- 11:54 PM	70 km	<input type="checkbox"/>	<input type="checkbox"/>
6/23/2015 12:46 AM	- 11:00 PM	236 km	<input type="checkbox"/>	<input type="checkbox"/>
6/22/2015 12:57 AM	- 11:44 PM	100 km	<input type="checkbox"/>	<input type="checkbox"/>
6/21/2015 1:00 AM	- 11:55 PM	112 km	<input type="checkbox"/>	<input type="checkbox"/>

Vehicle Collision Avoidance System (VCAS)

This GPS system is ideal for outdoor applications

The Blue Electronics Vehicle Collision Avoidance System (VCAS) is designed for installation and use on small to heavy vehicles, including light vehicles, dozers, excavators, scrapers, water carts, haul trucks, draglines and shovels. The VCAS provides for the operators of the vehicles with a 360 degree view of their surroundings displaying all vehicles and workers fitted with or wearing the system and uses a range of technologies to detect and warn the operator of a potential collision with another vehicle or detection of a worker. Workers wearing a Personal Proximity Device (PPD) are also warned if they get too close to a vehicle fitted with the Vehicle Collision Avoidance System (VCAS).

Proximity Detection System

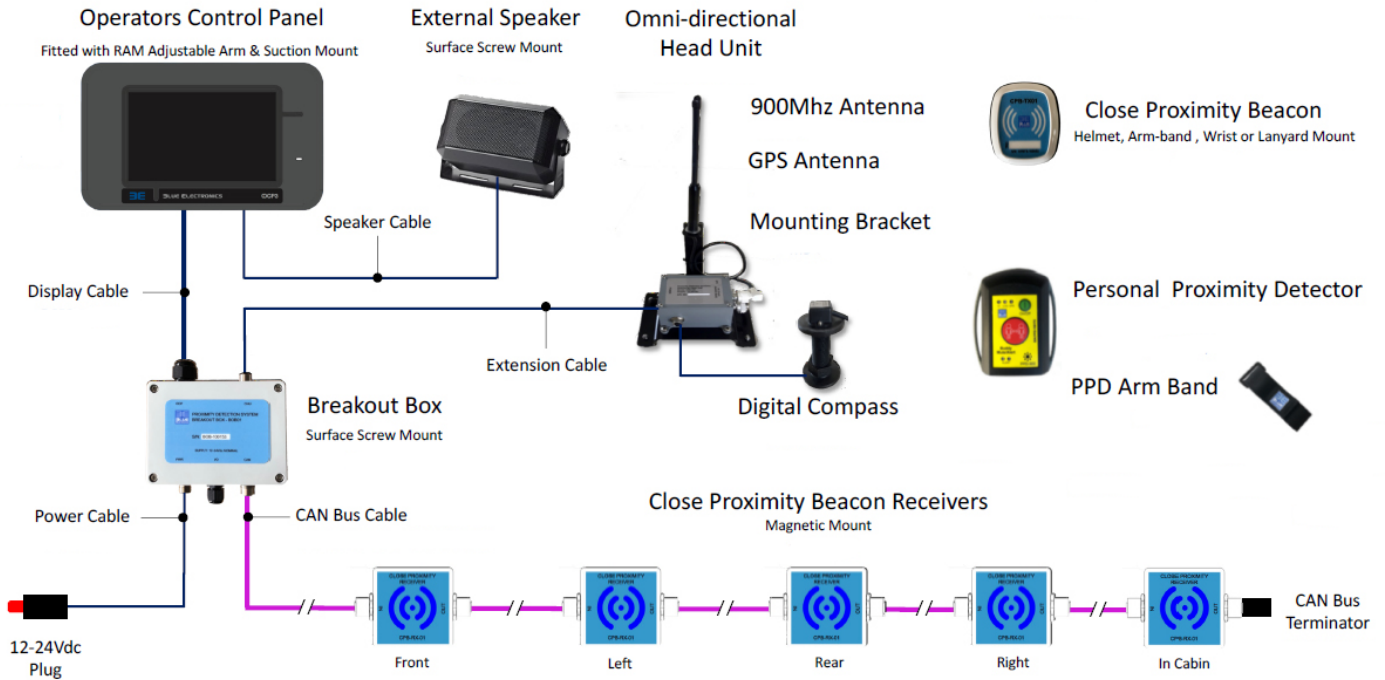


Fully- Customised Proximity Detection System

For applications that are both indoor and outdoors

The simple system packaging allows the Blue Electronics Proximity Detection Systems supported by Position Partners to be fully customised to your applications. Any configuration of the Vehicle Collision Avoidance System (VCAS) and Close Proximity Detection System (CPDS) is possible for indoor to outdoor applications.

Proximity Detection System with Close Proximity Detection

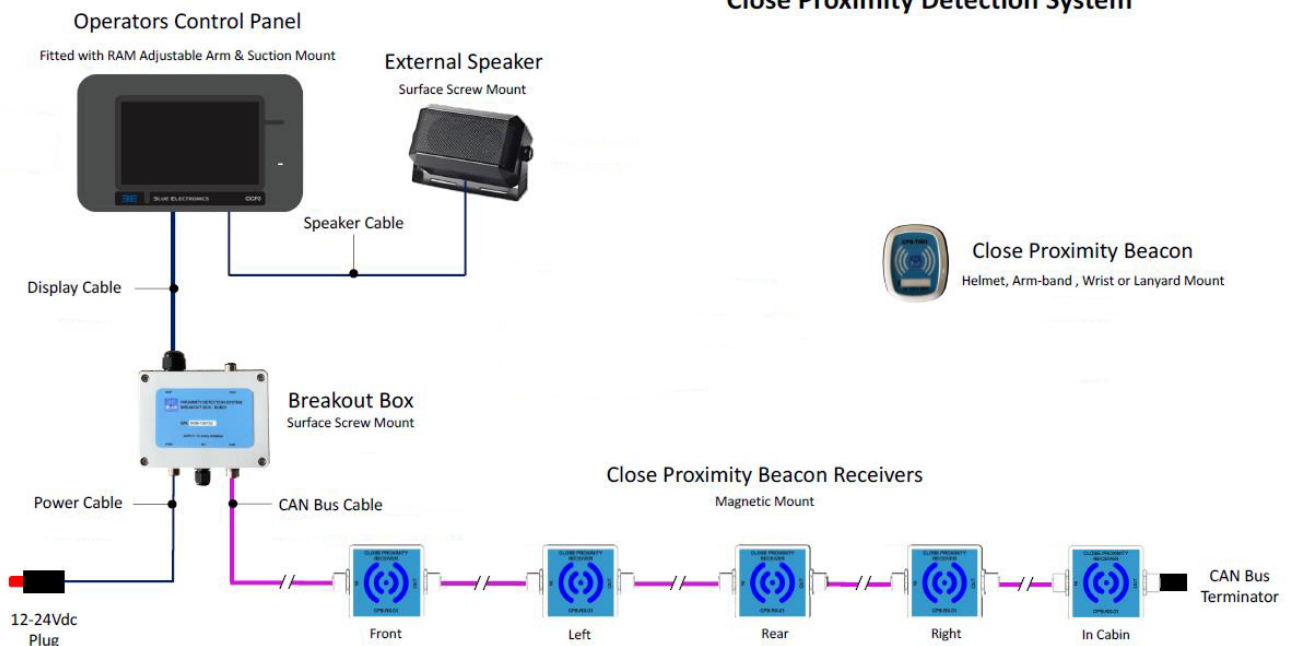


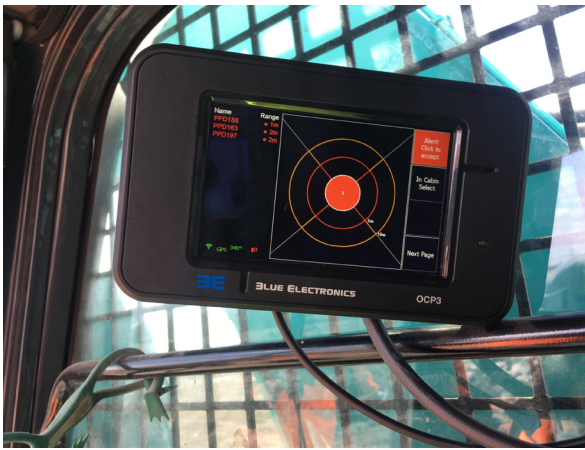
Close Proximity Detection System

This Bluetooth Low Energy (BLE) system is ideal for indoor applications

When Close Proximity Detection is required, in addition to the CPB-RX being installed a pedestrian must wear a Close Proximity Beacon Transmitter (CPB-TX). These devices uses Bluetooth Low Energy (BLE) to determine their approximate distance to a machines CPB-RX. They are powered from a non-rechargeable Li-ion Battery that has an approximate working-life of two years.

Close Proximity Detection System





Operators Control Panel (OCP)

The Operators Control Panel (OCP) provides the operator with an overview of surrounding vehicles and workers. If the machine enters the Warning or Alert Zone, which can be configured, the OCP will alarm and display which zone has been breached and who caused the alarm. The operator can accept the alarms by pressing the Accept button. In the event of a 'Buddy Alert' being triggered by a worker, the operator will be alerted by a separate warning, so they can take the necessary action.



Omni-direction Head Unit

The omni-directional head unit provides the proximity detection system to calculate the direction of travel of the machine. This is especially important on machines that rotate and have implements, such as excavators, dozers so that the system is aware where the machine is headed and can more intelligently work to avoid collisions with other machines or people. The unit can be conveniently mounted on the body or roof of your machine(s).



Personal Proximity Device (PPD)

The Personal Proximity Device (PPD) is light-weight, re-chargeable proximity detection device worn by pedestrians working near vehicles fitted with the Proximity Detection System. The PPD uses GPS to determine its relative position to a vehicle and can also be fitted with a Close Proximity Transmitter for improved close proximity accuracy.



Close Proximity Beacon Receiver and Transmitter

The Close Proximity Beacon Receiver and Close Proximity Transmitter use Bluetooth Low Energy (BLE) to determine their approximate distance to a machine's Close Proximity Beacon Receiver.

Get in touch today:

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