

C63 77 GHz Radar Proximity Warning System

50 m Detection — For Trucks, Forklifts & Special Equipment

A 77 GHz millimeter-wave radar proximity warning system with a digital LED distance display. Detects stationary and moving objects up to 50 metres away, and adapts to single-, dual-, or four-sensor configurations for rear, front, and side coverage.



Product Overview

The C63 is a high-performance 77 GHz radar proximity warning system built for commercial vehicles, forklifts, and special equipment. The C63-4 version uses four sensors to provide front, rear, left, and right monitoring, while the system also supports single- and dual-sensor configurations for simpler applications. Distance data is shown clearly on a numeric LED display, and the built-in buzzer gives progressive audible warnings as objects get closer.

Key Features

50 M ULTRA-LONG RANGE

Detects obstacles up to 50 metres with a maximum detection width of 10 metres — 2-3× longer than many conventional systems.

77 GHZ MILLIMETER-WAVE RADAR

High-resolution 77 GHz sensor with a 130° horizontal angle, stable in dust, vibration, and low-visibility conditions.

DIGITAL LED DISTANCE DISPLAY

Numeric readout in metres with colour-coded indicator blocks and an integrated 80-100 dB buzzer for clear warnings.

1 / 2 / 4 SENSOR CONFIGURATIONS

Choose one sensor for rear only, two for front and rear, or four for full 360° perimeter monitoring on one display.

WIDE VOLTAGE RANGE

Operates from DC 9 V to 36 V, suitable for both 12 V and 24 V vehicle electrical systems without converters.

IP69K SENSOR PROTECTION

Sensor is rated IP69K to withstand high-pressure, high-temperature washdowns and extreme outdoor conditions.

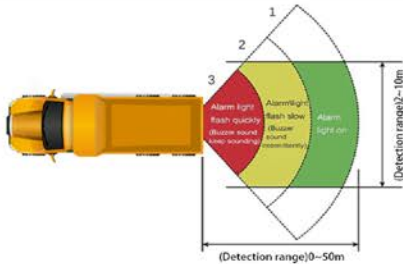
What the System Detects

- ✓ Stationary objects such as walls, posts, and parked vehicles
- ✓ Moving vehicles, pedestrians, and cyclists in the detection zone
- ✓ Workers and obstacles behind or beside commercial vehicles
- ✓ Low-height hazards that mirrors and cameras often miss

How the Operator Is Warned

- ✓ Numeric distance shown on the digital LED display
- ✓ Colour indicators switch from safe to warning to danger
- ✓ Integrated buzzer sounds as distance decreases
- ✓ Nearest-obstacle priority logic when multiple sensors are active

The C63 adapts to different vehicle types and operating conditions through trigger inputs and selectable sensor counts. In normal driving, the front, left, and right sensors can remain active; in reverse, the rear sensor joins to create full perimeter awareness. A brake trigger can temporarily mute the buzzer for 30 seconds, and a spare tyre mode compensates for a rear-mounted spare wheel.



Long-Range Rear Detection

Rear sensor covers up to 50 m behind the vehicle with a width up to 10 m. Detection range and width can be adjusted to suit the vehicle and site.



Front, Left & Right Coverage

With four sensors, the system continuously monitors the perimeter. The display shows the nearest obstacle and lights the corresponding side indicator.



Smart APP & Parameter Tuning

Real-time alerts, data logging, and remote parameter tuning through the dedicated mobile app — turning passive safety into active fleet management.



Heavy & Special Equipment

Designed for large trucks, forklifts, wheel loaders, excavators, cranes, and other vehicles with limited operator visibility.

Intended Application

The C63 is suitable for OEM integration and retrofit on heavy trucks, forklifts, wheel loaders, excavators, cranes, and special-purpose vehicles. It is designed to help operators reduce reversing and manoeuvring incidents, improve worksite safety, and support fleet safety management in logistics, mining, construction, and material-handling operations worldwide.

PARAMETER	SPECIFICATION
Operating Voltage	DC 9 V – 36 V
Rated Current	≤ 380 mA
Buzzer Alarm	80 – 100 dB
Radar Frequency	77 GHz
Radar Detection Angle	130° horizontal
Detection Range (Length)	Up to 50 m (truck); 25 m (human); adjustable 2 – 50 m
Detection Range (Width)	Up to 10 m; adjustable 3 – 10 m
Target Detection	Stationary and moving objects
Sensor Configuration	1 / 2 / 4 sensors (optional)
Sensor Installation Height	0.8 m – 1.2 m above ground; surface vertical to ground
Operating Temperature	-40 °C to +85 °C
Control Box Dimensions	87 × 64.1 × 25 mm
Sensor Dimensions	110.75 × 87.74 × 24 mm
LED Display Dimensions	80 × 48 × 50 mm
Ingress Protection (Sensor)	IP69K — high-pressure, high-temperature washdown resistant
Connector Type	Self-locking cable sockets
Application	Heavy trucks, forklifts, wheel loaders, excavators, cranes, special vehicles

Why It Matters

Safety & Risk Reduction

- ✓ 50 m range gives operators more reaction time
- ✓ Detects both stationary and moving hazards
- ✓ Clear LED and audible warnings reduce reliance on mirrors

Operational Flexibility

- ✓ 1 / 2 / 4 sensor configurations match the vehicle and budget
- ✓ 12 V / 24 V compatibility for mixed fleets
- ✓ IP69K suits harsh construction and mining sites

CE

EMC Compliance
Electromagnetic
Compatibility

IP69K

High-pressure Washdown
Dust-tight & Steam-jet
Protected

ECE

E-mark E57
Vehicle Type Approval

FCC

United States
Radio Equipment

Full test reports and region-specific compliance documentation are available upon request.

Company Profile

23 years. One focus.

Commercial vehicle safety systems,

From hardware supplier to fleet safety partner — we build systems that protect what matters.

IATF 16949

ISO 9001

CE

IP69K

ECE E57

FCC

100,000+ Monthly Capacity