SILENT HORN
SYSTEMS

Hummingbird Electronics

SAFETY WITHOUT THE NOISE

SILENT HORN SYSTEMS

A cutting-edge, wireless machine-to-machine communication solution, the Silent Horn System replaces traditional audible horns with silent RF-based alerts, supported by GPS precision.

Specifically engineered for the mining, construction, and heavy industry sectors, the Silent Horn System enhances operator coordination while dramatically reducing noise pollution and mitigating health risks associated with dust exposure. Operators remain in sealed cabs, avoiding unnecessary exposure, and work sites achieve compliance with stringent environmental and community noise standards.

With its smart RF signaling and live GPS-driven proximity detection, the system supports safer, quieter, and more productive operations, allowing mining sites to extend operating hours near residential areas while reducing community noise complaints.

Look at the benefits:

- Reduces noise pollution improving communications for operators
- Utilises GPS and GLONASS satellite systems for positional accuracy
- Menu functions are password-protected
- Antenna module requires no configuration - plug and play!
- Rugged and weatherproof
- Multi voltage - 12 or 24 volt compatible

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- Replaces external horns with automatic RF communication (433 MHz)
- GPS-Driven Proximity Detection
- Configurable Horn Trigger Range to ensure only relevant vehicles are alerted
- Live Machine ID Display to confirm Digger/Loader proximity to Truck to aid in decision making
- Supports single, dual, or triple antenna
- Operates on 9–32V, compatible across light and heavy equipment
- Preconfigured Plug-and-Play Installation
- Reliable, rugged, and free from signal dropouts

SILENCE THAT WORKS OVERTIME.

As housing and mining sites move closer to each other, and the number of civil projects grows, pressure increases to reduce noise pollution. The Silent Horn Elite System removes the need for loud external horns, allowing one operator to contact another without external noise being generated while doors and windows remain shut, helping to reduce dust in the cabin.

Extended Operating Hours
Supports quieter operations, enabling longer shifts and reduced curfews.

Reduce Noise Pollution
Helps meet environmental noise limits and avoid community complaints.

Safer Working Environment
Keeps operators in sealed cabs, avoiding unnecessary exposure to dust.

Improved Operator Coordination
Clear machine ID display and instant feedback increase situational awareness.

Fleet-Wide Scalability
Easy to deploy across fleets of all sizes, from equipment to large-scale trucks.

Key Configurations
Systems feature several configurations to improve positive communication.

SOLUTION FOR EVERY SITE.

Smaller Mining Operations
For compact sites and smaller fleets, a single antenna system is ideal, offering cost-effective and reliable for diggers, loaders, and smaller trucks.

Large-Scale Mining Sites
For larger haul trucks, especially those with oversize tubs or complex body shapes—a dual antenna setup is recommended to eliminate blind spots and ensure full 360° signal coverage.

Extreme or Obstructed Layouts
In challenging environments with signal obstructions or unusual vehicle geometries, a third antenna can be added to maximise detection range and reliability.

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The Silent Horn Elite System for Diggers

HMSM2200E1KIT

- Silent Horn Display
- RF/GPS Antenna Unit
- Operator Interface Screen Connection harness
- Dash mount Ram Mount
- IO Module

The supplied IO module enables expandable functionality and the addition of external buzzers or beacons. It reads in any normally open switch contacts for the horn button. The display, antenna and IO module all communicate using proven RS485 comms, enabling simple wiring runs between modules.

The Silent Horn Elite System for Trucks

HMSM2000EKIT

- Silent Horn Display
- RF/GPS Antenna Unit
- Operator Interface Screen Connection harness
- Dash mount Ram Mount

When the loader or truck presses the horn switch, an RF message is sent to trucks and diggers in the area. If they are within a specified distance from the loader or truck and are part of that loaders circuit, a buzz in the display will sound and a red horn symbol will be displayed along with the loader number.

The Silent Horn Dual Antenna for Trucks

HMSM2000E2KIT

- Silent Horn Display
- 2 x RF/GPS Antenna Unit
- Operator Interface Screen Connection harness
- Dash mount Ram Mount

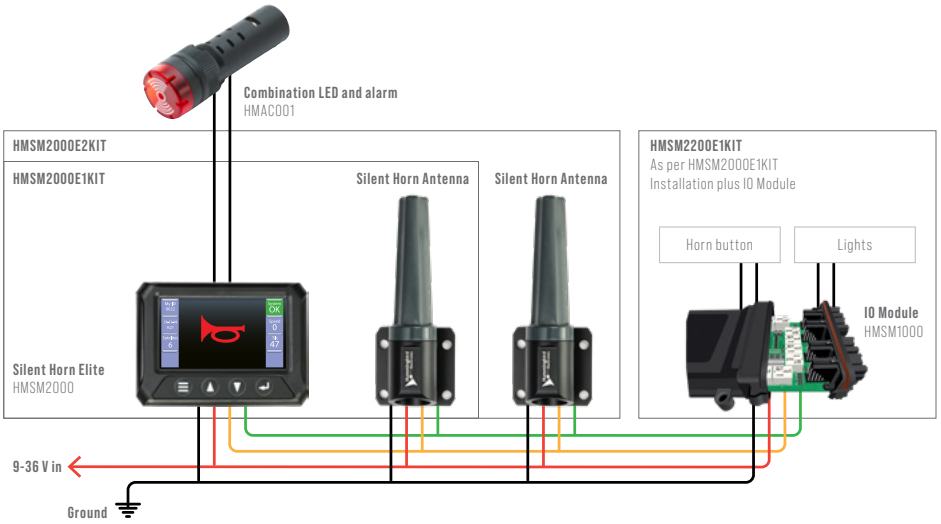
Dual Antenna Coverage provides extended RF range and eliminates signal dead zones, ideal for machines with large bodies or complex layouts such as haul trucks.

The Silent Horn System works well with...

Combination Warning Led and Buzzer

HMAC001-12 (12 volt)/HMAC001-24 (24 volt)

Used as an alarm or indicator, this unit delivers clear in-cab visual and audible feedback through an LED and buzzer pulse, ensuring operators are immediately aware when a signal is received.



Flexible System

Expandable from 1 to 3 antenna configurations, the Silent Horns Multi Voltage Compatibility allows for complete site fitment across all types of vehicles. Silent Horn is also backwards compatible with earlier system (note: for Multi antenna use, all products must be E variant)

Machine ID

Each truck, digger & loader in the system is assigned a customisable four-digit number unique to each machine on site. When a horn signal is received it identifies where the signal came from and facilitates a truck pairing to a particular digger.

Machine Monitoring

Standard incline roll and speed can also be displayed further enhancing positive communications and operators awareness.

Display Brightness

The only direct interaction the operator has with the screen is to dim the display, to make it less difficult for the operator during night or day operations.

Horn trigger range

Each smart antenna has an accurate GPS receiver allowing truck operators to realise their position in relation to other digger and set the max distance at which they will receive its horn signal.

Horn latch time The latch time ensures a minimum 'on' time for the horn signal so operators can't mistakenly make a short.

Input voltage	9-36 V
IP rating	Antenna - equivalent to IP66
Horn range	Settable up to 150 m
RF frequency	433.92 Mhz with digital modulation
Wiring	Kit includes wiring loom for display with Deutsch plug for antenna and IO module (HMSM2200E1KIT Only)

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