

Being serious about safety doesn't mean making a big noise about it.



Simple to install, reliable and compact, the Silent Horn System is designed for trucks, diggers and loaders.

It is a replacement for noisy machine horns on construction and mine sites and other environments where noise reduction is paramount.

Operators of loaders are now able to communicate with truck operators with a press of a button. Truck drivers receive both visual and audio alerts, providing them with a loading machine identity without any additional external noise.

Vehicles can pair with each other, meaning less distraction for operators. Additionally, by using GPS, only trucks within a set perimeter can receive horn signals, reducing operator distraction and making worksites safer.

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 weatherproof construction
- Multi voltage - 12 or 24 volt compatible



As urban settlements and mining operations move closer to each other, the pressure on mines to reduce their noise pollution increases.

Likewise, civil construction projects in urban environments should be conscious of their noise footprint.

In either scenario, the safety of operators remains paramount and the ability to ensure machines maintain reliable positive communication remains a critical part of remaining safe.

Replaces noisy horns

The Silent Horn - Elite System removes the need for loud external horns altogether by replacing the horn with a wireless RF/GPS link, allowing one operator to contact another, with no noise being generated. The Silent Horn System allows operators to keep their doors and windows closed - which may have otherwise been opened to hear external horn blasts - and, therefore, helps to reduce dust in the cabin.

An important safety device

Operators of trucks also can pair with individual digger machines from the in-cabin display, eliminating cross communication should two diggers be operating within close proximity, further enhancing positive communications. Standard incline roll and speed can also be displayed offering improved stability awareness for operators.

Key configurations

Typically, a digger operator will press their horn and trucks in the area will receive the signal. The Silent Horn System features several configurations which help improve positive communication between digger machines and trucks.

Machine ID

Each truck or digger in the system is assigned a four-digit number unique to each machine on site (this can be the same as the machine ID assigned by the site). When a horn signal is received it identifies where the signal came from and facilitates a truck pairing to a particular digger.

Pairing functionality

The pairing function allows a truck to only receive horn signals from the digger it's paired to. This is particularly useful if two or more diggers are operating near each other and the 'horn trigger range' is not enough to limit unwanted horn signals. Pairing is easy to set up using the menu system on the display.

Horn trigger range

Sets the maximum distance that a truck will receive a horn signal from the digger.

Many trucks will service one digger and only when trucks are within this proximity will they receive the signal.

Each smart antenna has an accurate GPS receiver allowing truck operators to realise their position in relation to other digger machines.

When a digger horn signal is received by a truck, the screen displays the digger identification number reaffirming it's within the required range.

Horn latch time

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

The Silent Horn - Elite Systems

The Silent Horn - Elite System for Trucks

(HMSM2000CKIT) - consists of two main components; the display and antenna

The IO module supplied with the Elite System for Diggers (HMSM2200CKIT) enables expandable functionality and the addition of external buzzers or beacons. It reads in any normally open switch contacts for the horn button.

It has two relay outputs - one closes when the local horn button is pressed, the other relay closes when a remote horn signal is received.

All parts of the system are interchangeable allowing easy maintenance via plug-in replacement. The same display can be configured to operate as a truck or a digger screen. The antenna module is completely interchangeable between trucks and diggers with no configuration required.

The display, antenna and IO module all communicate using proven RS485 communications, enabling simple cabling between modules.

The Silent Horn - Elite System for Diggers

(HMSM2200CKIT) - consists of three main components; the display, antenna and IO module

Display



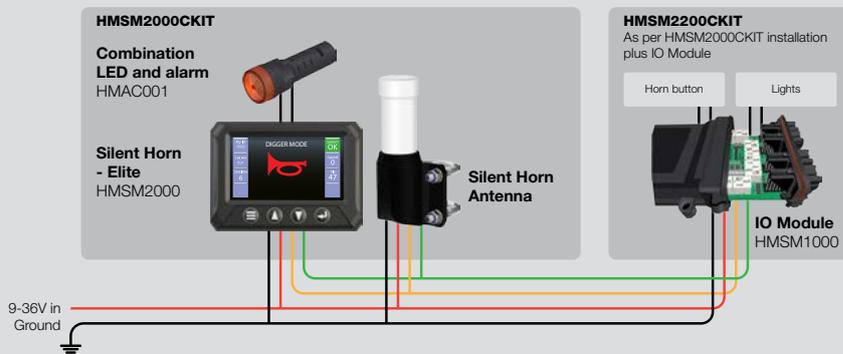
IO module



Antenna

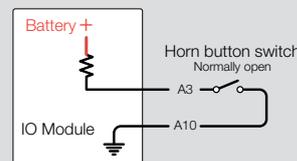


Silent Horn System installation



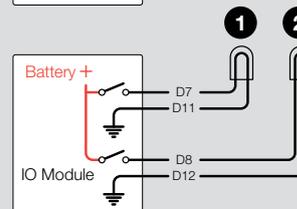
- The system is compatible with both 12 and 24 volt vehicles
- Each module's green and yellow communication wires are to be connected in a parallel/daisy-chain configuration (as shown above)
- The IO Module should only be installed in machines that will be triggering the horn (such as diggers and loaders)
- It is recommended that a 5 amp fuse is placed on the positive wire supplying power to the system

Horn button switch wiring



Relay wiring

Indicator 1 - lights up when button is pressed
Indicator 2 - lights up when horn trigger is received



Specifications

Part number	HMSM2000CKIT/ HMSM2200CKIT
Input voltage	9-36V
IP rating	Antenna - equivalent to IP66 In cab display - equivalent to IP40
Horn range	Settable up to 150m
RF frequency	433.92Mhz with digital modulation
Wiring	Kit includes wiring loom for display with Deutsch plug for antenna and IO module (HMSM2200CKIT only)

Works best with:

Combination Warning LED and Buzzer

HMA001-12 - 12 volt
HMA001-24 - 24 volt

Used as an alarm or indicator in automotive applications, when a DC voltage is applied, the LED and buzzer pulse for maximum impact.



Visit hmbe.com.au/silent-horn for more product information

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