

SILENT HORN ELITE SYSTEM

HMSM2000DKIT/HMSM2200DKIT



Hummingbird
Electronics

SAFETY WITHOUT THE NOISE

SILENT HORN ELITE SYSTEM

HMSM2000DKIT/HMSM2200DKIT

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

Operators of trucks, diggers and 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 and weatherproof
- Multi voltage - 12 or 24 volt compatible

HMSM2000DKIT
HMSM2200DKIT

SILENT HORN ELITE SYSTEM



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, replacing them with a wireless RF/GPS link, allowing one operator to contact another with no external noise being generated. It allows operators to keep their doors and windows - which may have been open to hear external horn blasts - closed, helping 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.



Part number	HMSM2000DKIT/HMSM2200DKIT
Input voltage	9-36V
IP rating	Antenna - equivalent to IP66
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 (HMSM2200DKIT only)



The Silent Horn Elite System for Trucks

HMSM2000DKIT

Consists of two core components:

- Display
- Antenna

When the loader/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/truck and are part of that loader's circuit, a buzz in the display will sound and a red horn symbol will be displayed along with the loader number.



The Silent Horn Elite System for Diggers

HMSM2200DKIT

Consists of three core components:

- Display
- Antenna
- IO module

The IO module supplied with this product 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.

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

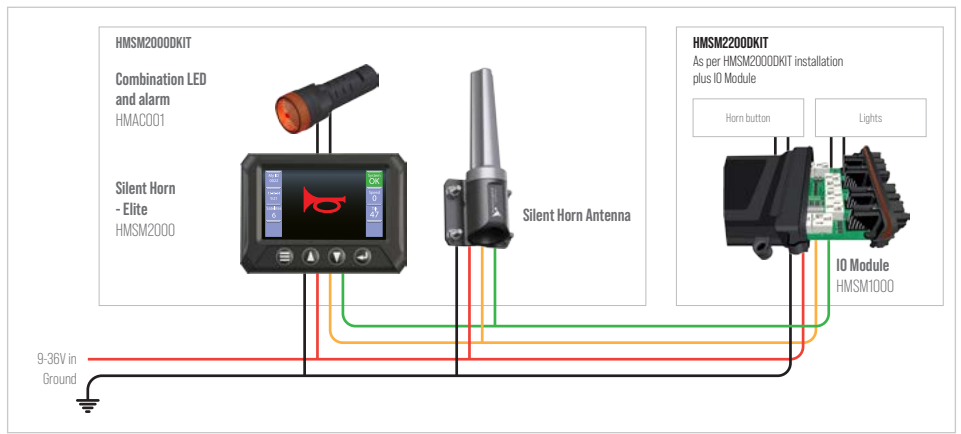
The HMSM2000KIT/HMSM2200DKIT works well with...



Combination Warning LED and Buzzer

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

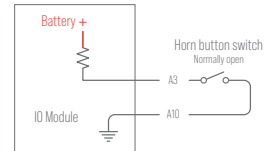


Multi voltage compatibility

The system is compatible with 12 and 24 volt vehicles. Each module's green and yellow communications wires are connected in a parallel/daisy-chain configuration.

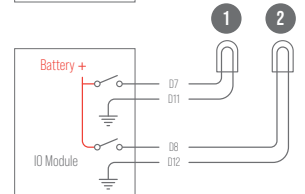
The IO Module should only be installed in machines that will be triggering the horn (such as diggers and loaders). A 5 amp fuse should be placed on the positive wire supplying power to the system

Horn button switch wiring



Relay wiring

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



Key configurations

Typically, a digger operator will press their horn and trucks in the area will receive the signal. The Silent Horn Elite 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.

