



**IntelliZone®**  
PROXIMITY DETECTION



**IntelliZone® is a user-friendly proximity detection system that creates shaped and dynamic shutdown/caution/operator zones to enhance miner safety while maintaining productivity.**

- IECEx-certified for underground coal in Australia and Queensland since 2018 and EMESRT Level 7 & 9 compliant.
- Shaped-zone technology minimises nuisance alerts - works on standard or articulating equipment.
- Continuous miner operator can stand close to the machine and remain in a safe area.
- Purpose-built for underground mining and can be installed on all mobile equipment.
- 2021 U.S. NIOSH Safety and Health Technology Innovation Award winner.



- **SharpZone™ technology** minimises false alarms and allows long-range, through-curtain detection
- **Shaped zones** allow precise location of support workers without reducing production, including CM boom and articulated equipment.

The Matrix IntelliZone® proximity detection system helps train personnel to stay clear of danger zones present around mobile equipment. The system is designed for use on all brands of continuous miners, shuttle cars and other mobile underground equipment or vehicles.

- **IECEx-certified** for underground coal in Australia and Queensland since 2018 and EMESRT Level 7 & 9 compliant.
- **Proven Technology** – first installed in 2009, more than 90% of all US underground coal mines operating with proximity detection systems use Matrix technology.
- **Highly Reliable** – machine-integrated “Drivers” are compact and robust for maximum uptime and manufactured for harsh operating conditions.
- **Machine Mounted Locator** – enhances the system's diagnostic capabilities and is used to create zones that move in sync with articulating equipment. Comes standard on new systems and is easy to add to older ones.
- **Data Logging** – IntelliZone is the only IS-approved prox system that allows **precise** personnel location and data logging.

The  
**MOST ADVANCED**  
**proximity detection**  
**system operating**  
**worldwide in**  
**underground mines.**

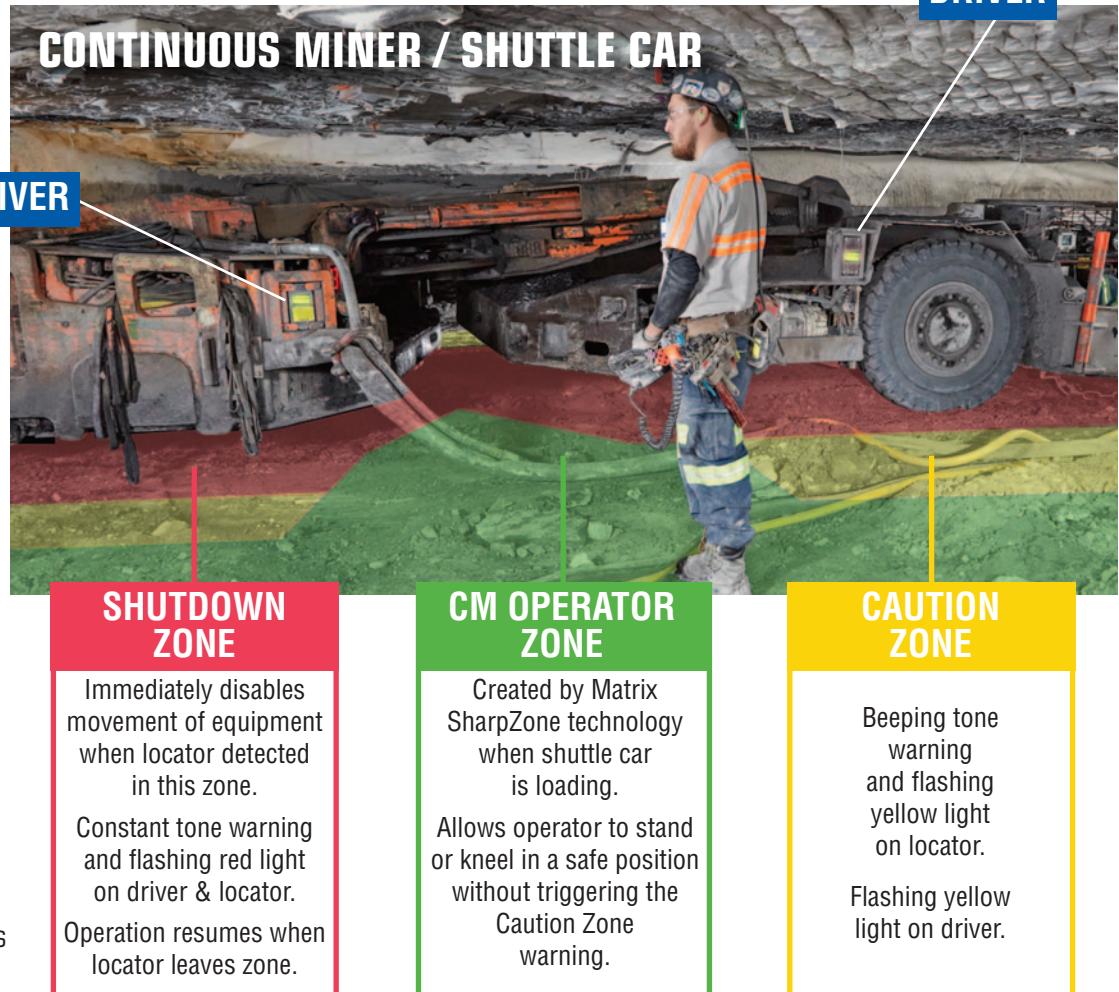


**Locator**

The IntelliZone Locator uses audible and visual alerts to warn personnel of potential danger.

The Locator is compact, lightweight, simple to use and powered by a rechargeable battery.

All IntelliZone Locators for underground coal mines are Intrinsically Safe (IS).



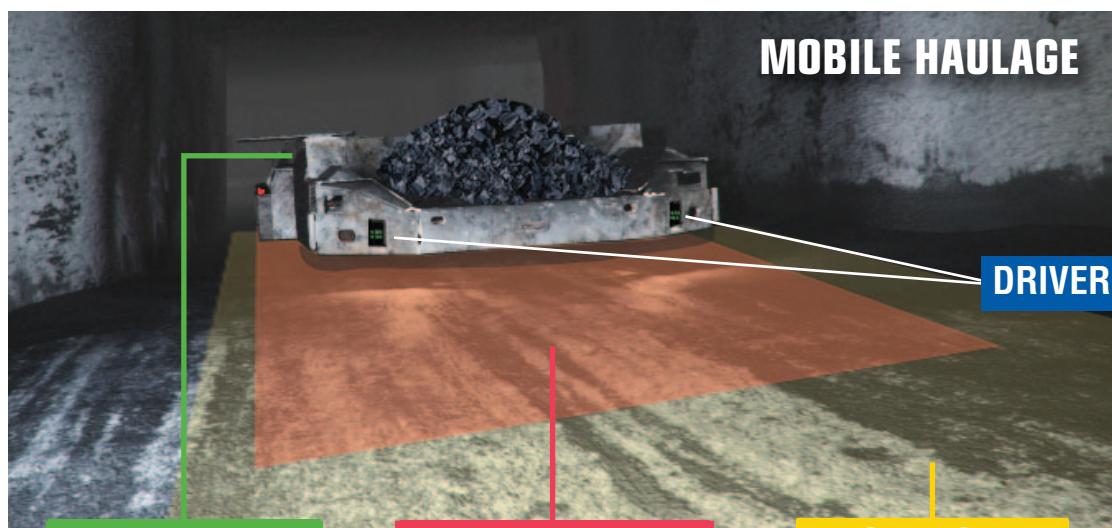
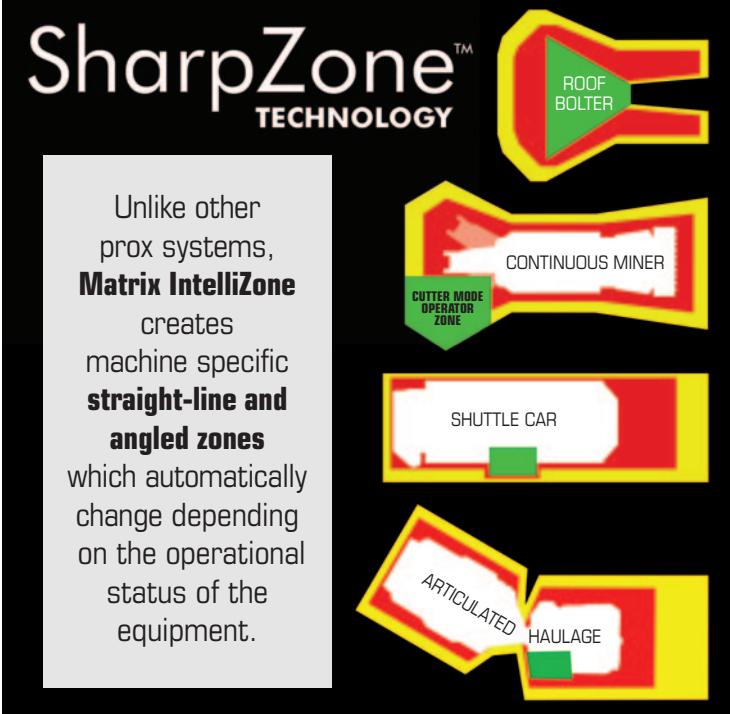
## SharpZone™ Technology for Precise Programmable Awareness Zones

Matrix's leading-edge SharpZone technology creates equipment-specific straight line and angled safety areas for the most effective Caution and Shutdown zones. These zones help protect miners from mobile equipment injuries and minimise nuisance warnings or shutdown. For example:

- Mobile haulage awareness zones vary based on speed and direction of travel. Higher speed means longer forward zones to allow for higher stoppage time.
- Mobile haulage awareness zones can "see" through curtains to help avoid worker collisions.
- Zones around CM tail automatically shrink in cutting mode and expand while tramping.
- Customized "green" zones can be generated within the awareness zones to allow operators to stand, kneel or, if appropriate, ride in safe locations without setting off a zone alert.

# IntelliZone®

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### MOBILE HAULAGE

#### DRIVERS

#### OPERATOR ZONE

Matrix SharpZone technology creates an in-cab "green" zone so operator does not trigger alarms while driving mobile equipment.

#### SHUTDOWN ZONE

Auto-stops when worker detected in Shutdown Zone. Audible warning and flashing Red light on driver & locator. Operator receives in-cab warning. Operation resumes when worker exits zones.

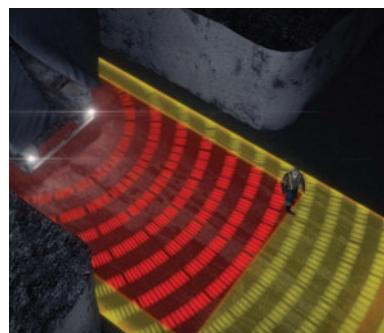
#### CAUTION ZONE

Auto-slows speed when worker detected in Caution Zone. Audible warning and flashing Yellow light on driver & locator. Operator receives in-cab warning (optional).

### Zones Extend as Speed Increases

As mobile haulage's speed increases, the zones increase in length to accommodate the longer required stopping time.

The zones can "see" through barrier curtains, which helps protect workers.



**MATRIX**

## Enhanced Status Screen



The Enhanced Status Screen provides a quick visual report, showing if your system drivers and locators are working properly. This optional accessory decreases the time required to trouble-shoot a system issue without the use of a laptop or Faceboss.

The Matrix Enhanced Status Screen also provides in-cab directional zone breach information for mobile equipment operators.



Information and specifications contained in this document are subject to change without notice.

IntelliZone and SharpZone are registered trademarks of Matrix Design Group, LLC.

## Matrix IntelliZone® Warning System Summary

Worker Location	Locator	Driver	Continuous Miner	Mobile Haulage	
Outside Zones		Flashing Green Light	Green Light		Normal Operation
Caution Zone		Flashing Yellow Light & Beeping Tone	Flashing Yellow Light		Normal Operation
Shutdown Zone		Flashing Red Light & Fast-Beep Tone	Flashing Red Light		Auto-Stop



### NOTICE

Matrix IntelliZone is intended to help teach mine personnel to safely interact with equipment and stay clear of danger zones. It is not intended to replace safe operating practices. IntelliZone is a useful tool to assist in personnel training.

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