i-kon™ II

The Next Generation

NEXT GENERATION

i-kon™ II
Electronic Blasting System

ORICA

Improvements that matter most to you

The i-kon™ II system is designed to achieve better outcomes for customers in surface and underground operations. These outcomes can be further enhanced when used in combination with Orica's range of blasting products and tailored services.

Operational productivity

Fragmentation improvement – Greater timing precision allows for even more precise control of shock waves to improve fragmentation.

Wall control – Precision timing enables greater control, improving highwall stability in final limits blasting.

Minimise coal loss – Precision timing, longer maximum delay and the programmability of i-kon™ detonators drives improved results with Stratablast™ applications.

Muckpile shaping – Precision timing and programmability allows you to more accurately move the rock, where you want it.

Reduced cost of drill and blast

Operational efficiency – New connector, duplex harness wire, Logger dock and three times faster programming time enables greater efficiencies on bench.

Risk management

Vibration control – Precision timing enables more accurate management of vibration control.

Improved mine safety – The i-kon™ CEBS unit allows surface and underground mining operations to detonate blasts from a convenient and safe control point. Dual voltage technology allows all operations on the blast pattern to be at an inherently safe low voltage.

Greater timing precision for fragmentation improvement.

More accurate timing and greater maximum delays improve coal recovery.

New connector allows for an easier and quicker hook up in all conditions.

The power of innovation

Through our ongoing investment in research and the development of new technology, we are continually working to make our products safer, more reliable and more efficient.

The Next Generation i-kon™ II system is based on over 20 years of laboratory testing and 12 years of in-field use. Developed specifically for use in high value and complex blasts at large surface and underground operations, i-kon™ II continues to set the industry benchmark in Electronic Blasting Systems.

Building on the best of i-kon™

The i-kon™ II system retains many of the key features and capabilities of i-kon™ to enable your operation to achieve optimal blast results.

- The Basis of Safety has not changed. Dual voltage technology allows all operations on the blast pattern to be done at an inherently safe low voltage.
- Blast design using the industry-leading and recently enhanced SHOTPlus™ 5 design package remains a cornerstone of i-kon™ II.

SHOTPlus™ 5 blast design software is a cornerstone of i-kon™ II.

- Multiple Loggers are used to break the blast into several small, independent circuits, greatly increasing the system's resistance to electrical leakage and to extraneous electrical energy on the wiring. This improves efficiency by enabling a blast pattern to be logged by multiple operators, simultaneously.
- Multiple modes of logging including SHOTPlus™ 5 mode, autoLog and pre-logging remain, with easier connections.
- CEBS (Centralized Electronic Blasting System) for Underground applications and SURBS (Surface Remote Blasting System) for Open Cut applications facilitates easy remote blasting from a convenient and safe control point.

Automated manufacturing at Brownsburg, Canada.

- Encrypted remote communications ensure that the detonators can only be controlled from the designated Blaster, providing greater security and safety.
- The superior copper zinc shell of i-kon™ has been retained with i-kon™ II, reducing failure due to dynamic shock in the hole.
- A choice of legwire means that users can select the legwire suitable for their mining conditions: standard wire for many underground and coal mines and i-kon™ RX for most metal mines.
- Full programmability of the detonator facilitates inventory reduction and simplifies regulatory conformance.

Multiple modes of logging functionality.

Next Generation i-kon™ II enhancements

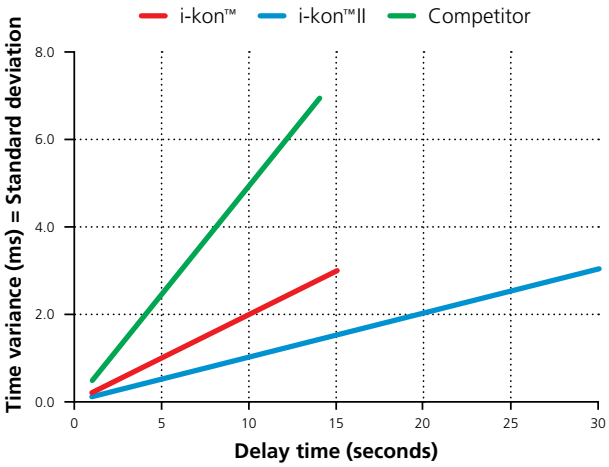
With the release of the i-kon™ II system, new features and improved functionality enables even more accurate blasts, and improves handling and operational efficiency.

Greater precision and reliability

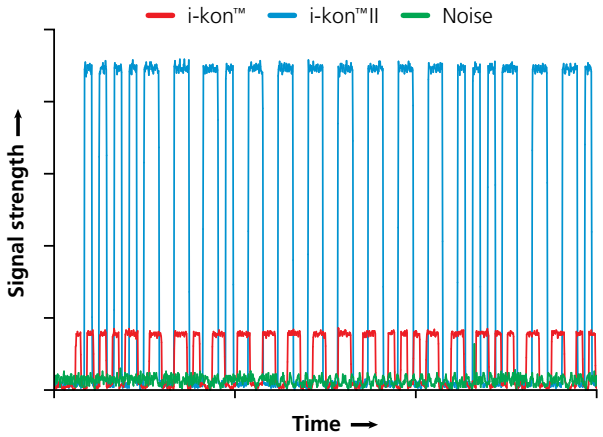
- Timing precision has improved by a factor of two from 0.01% to 0.005%, reducing the chance of firing out of order and increasing the ability to exactly control when the detonators will detonate.
- An increase in maximum delay time from 15 to 30 seconds allows very different types of blasting to be designed – both in large underground and more sophisticated surface mining.
- Improved timing precision enables these much longer delays while retaining individual hole timing.
- Five times louder back-signal (as compared to i-kon™) means the detonator is able to overcome more capacitance on the line.
- ASIC and PCB developed in conjunction with an Aerospace partner that normally develops chips for satellite and space exploration equipment, to achieve reliability by design.

Greater convenience and efficiency

- The new connector features two harness wire slots enabling splicing and connections to other legwires.
- A Logger dock makes pre-logging quicker and easier with no need to open the connector.
- The duplex harness wire features a single wire, single slot, increasing the speed at which the blast crew can connect up the detonators.
- Wire length encoded in ID number. This is beneficial in decked blasts as it helps the user ensure which deck is being logged.
- Three times faster programming reduces programming time per Logger from approximately 5 minutes to less than 2 minutes.



Comparison of timing precision between i-kon™, i-kon™ II and a major competitor. i-kon™ II doubles the maximum delay time of i-kon™ whilst maintaining the same time variance considered best in the industry.



i-kon™ II back-signal is five times louder than i-kon™.

The new glove-friendly connector is easier to use.

System components

Converting to the i-kon™ II system has been made more efficient with software upgrades, ensuring no current hardware is obsolete.

Blaster 400 and 2400S/2400R

The Blaster provides the voltage and command to fire the detonators in programmed sequence and can be upgraded via a firmware change only. The Blaster 2400R is designed for remote firing and is to be used with i-kon™ SURBS.

i-kon™ Logger

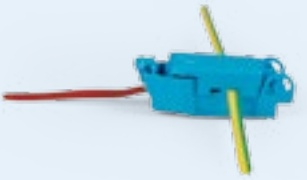
The current Logger can be upgraded via a firmware change to accept i-kon™ II detonators.

i-kon™ II Detonator

Accurate and fully programmable electronic detonator in toughened shell.

Duplex Harness Wire

Faster and easier to use, the duplex wire connects detonators with the Blaster.



i-kon™ II Connector

Designed for on-bench efficiency, the new connector carries signals between the detonator and the harness wire.

SHOTPlus™ Blast Design Software

Orica's SHOTPlus™ Blast Design Software downloads blast plans to the i-kon™ II Loggers.

i-kon™ CEBS

The i-kon™ CEBS (Centralized Electronic Blasting System) allows surface and underground mining operations to initiate eDev™ II and i-kon™ electronic detonator blasts remotely, from a convenient and safe control point. Available with i-kon™ II.

i-kon™ SURBS

A component of the i-kon™ SURBS (Surface Remote Blasting System) which allows the initiation of surface blasts from a safe line-of-sight location. Also pictured is the i-kon™ dongle, a feature of all Remote Blasters, required to enable encrypted communications between i-kon™ blast control hardware, thus conveying improved security.

NEXT GENERATION

For contact information please visit our website
www.oricaminingservices.com/ikonII