

# i-kon™ II Electronic Blasting System



i-kon™ II Logger



i-kon™ II Blaster 400



i-kon™ II Blaster 2400S



Sling Bag with harness wire



i-kon™ II Detonator



i-kon™ II Detonator RX

### Description

The i-kon™ II Detonator is one of Orica's Next Generation products. The i-kon™ II Detonator / Detonator RX can be used in conjunction with the following i-kon™ Electronic Blasting Equipment with firmware upgrades:

- i-kon™ II Logger
- i-kon™ II Blasters 400 & 2400S
- i-kon™ II SURBS (Surface Remote Blasting System)
- i-kon™ II CEBS (Centralised Electronic Blasting System for underground operations)

### Application

The i-kon™ II system is the most advanced Electronic Blasting System in the market and is particularly suitable for high value and complex blasts at large surface and underground operations in the most challenging environments. i-kon™ II detonators are also available with heavy duty lead wires as i-kon™ II detonators RX.

### Key Benefits

- Increased delay times (up to 30 seconds), large blast capacities (4800 dets), and integration of the system with SHOTPlus™ 5 blast design software, allows new blast designs and outcomes that are impossible with conventional initiation systems.

- 2-way communication and high precision (COV improved from 0.01 % to 0.005 %) lead to improved blast safety, more stable highwalls and the virtual elimination of unexpected misfires.
- The required programming time of i-kon™ II Detonators is significantly reduced. It takes no more than 2 min to program 200 respectively 2400 detonators.
- The programmability and precision of i-kon™ II Detonators result in more controllable blast results including improved control of ground vibration intensity and frequencies.
- The new duplex harness wire facilitates easier handling - in particular when it's cold. The harness wire does not need to be separated for connection of the detonator. The second terminal allows for splicing without tools.
- The i-kon™ II system reliably places many blast benefits within easy reach - better fragmentation, better heave or cast, expanded blast patterns, etc.
- The programmability of i-kon™ II electronic detonators allows significant reductions in inventory, makes ordering easier and eliminates the accumulation of obsolete initiation products in magazines.

### Recommendations for Use

- i-kon™ and i-kon™ II Detonators should never be mixed in the same blast pattern or connected to the same equipment at the same time. Misfires may result.
- i-kon™ II Detonators are explosive devices and should be handled with care. i-kon™ II Loggers and Blasters are electronic devices designed to withstand mine, quarry and construction environments but submersion in water and excessive impact must be avoided.
- i-kon™ II control equipment needs a firmware update prior to the use with i-kon™ II Detonators.
- i-kon™ II Detonators can only be tested, programmed and fired with upgraded i-kon™ II Loggers and Blasters. Do not use any other programming or blasting equipment.
- Damage to the lead wires is the most common cause of problems with electronic blasting systems. Exercise care and protect the lead wires when loading and stemming.

## i-kon™ II Electronic Blasting System

### Technical Properties

Product		i-kon™ II Detonator
Maximum delay time (ms)		30.000
Programmability (ms)		± 1
Precision as coefficient of variation (%)		0.005
Hydrostatic pressure resistance (bar/day)		10 / 7
Shell length x diameter (mm)		89 x 7.6
Shell material		copper or alloy
Base charge: PETN or Pentolite (mg)		780
Initiating charge: Lead Azide (mg)		120
Output strength		REF. DET. #3
Lead wire: steel (mm)	Standard RX	0.6 0.6
Insulation diameter (mm)	Standard RX	1.35 1.8
Wire tensile strength (N)	Standard RX	200 250
Insulation material	Standard RX	PP TPU
Wire color	Standard RX	yellow red
Connector	<b>Material</b> <b>Colour</b> <b>Terminals</b>	PE blue brass

### Storage and Handling

i-kon™ II Detonator and i-kon™ II Detonator RX

- Detonator should be stored between -40 °C and +50 °C
- Operating temperature range from -20 °C to +70 °C
- Transport temperature range from -40 °C to +65 °C
- Detonators have a storage life of up to 5 years in stable, temperate storage conditions in an approved magazine.

Control equipment (hardware)

- Store at moderate temperatures and humidity.
- Operating temperature range -20 °C to +60 °C.

If your application requires you to operate the i-kon™ II System outside these temperature ranges please contact your local Orica Account Manager.

### Product Classification

Correct Shipping Name: Detonators, electric  
 UN: 0030 0456  
 Classification: 1.1B 1.4S

All regulations pertaining to the use of such explosives apply.

### Product Approvals

Authorised Name	EC Type Certificate
i-kon™ II Detonator	ENB/D/188/15
i-kon™ II Detonator RX	ENB/D/188/15

### Packaging Details

#### i-kon™ II Detonator

Lead Length (m)	1.1B Units per Case	1.4S Units per Case
6	80	40
10	60	35
15	66	32
20	66	32
30	36	32
40	30	16
60	20	16

Format: 6 & 10 m figure 8; 15 – 60 m on spool

#### i-kon™ II Detonator RX

Lead Length (m)	1.1B Units per Case	1.4S Units per Case
10	60	32
15	60	32
20	48	32
30	30	16
40	25	16
60	18	12

Format: All on spool

## i-kon™ II Electronic Blasting System

### Control equipment

Equipment	Logger	Blaster 400	Blaster 2400S
Manufacturer	Orica		
Max. number of detonators test size/blast size	200	400	2400
Number of Loggers per Blaster	-	2	12
Synchronised blast size	-	-	4800
External dimensions [mm]	170x100x50	170x100x50	270x250x175
Battery type	NiMH	NiMH	Lead
Weight [kg]	0.6	0.6	3.2

### Disposal

Disposal of explosive materials can be hazardous. Methods for safe disposal of explosives may vary depending on the user's situation. Please contact a local Orica representative for information on safe practices.

i-kon™ II control equipment contains rechargeable batteries. Please dispose of the equipment in an environmentally friendly manner. It should be recycled or disposed in the same way as normal consumer electronics containing batteries according to the legal requirement.

### Safety

i-kon™ II Detonators can be initiated by extremes of shock, friction or mechanical impact. As with all explosives, i-kon™ II Detonators should be handled and stored with care and must be kept clear of flame and excessive heat.

Not to be used in mines with hazards of coal dust or fire damp explosions.

### Training

This Technical Data Sheet is for information only. The i-kon™ II System should only be used by personnel who have been properly trained to use this system.

### Equipment service

i-kon™ II control equipment is powered by rechargeable batteries, which must be recharged regularly.

It is recommended to return the equipment to your local Orica representative at least every two years for a service inspection. The service inspection includes a battery pack replacement, a function test and a firmware upgrade.

### Harness Wire

High quality i-kon™ II Duplex harness wire is used to connect up the i-kon™ II System in the field. Other duplex wire may look similar, but will not offer the same critical performance characteristics and is not recommended for use.

### Disclaimer

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