

Uni tronic™ Electronic Blasting System



Description

The Uni tronic™ Electronic Blasting System is the result of the continuing development and evolution of Orica's EBS product portfolio. The system consists of Uni tronic™ 500 programmable electronic detonators and Uni tronic™ hardware to identify, test, program and fire the detonators (Uni tronic™ Scanner 120, Uni tronic™ Network Tester and Uni tronic™ Blast Box 310). The system will enable users to experience the benefits that Electronic Blasting technology can deliver: reduced vibration, improved blasting efficiency, better fragmentation, enhanced safety and security.

Uni tronic™ blasting should particularly appeal to users in the quarry & construction industry and in small open cut coal and metal mines.

System Features

- Simple and straightforward to operate.
- Extremely easy to learn.
- Rugged, field proven technology and equipment.
- System capacity of 500 detonators per blast.
- A full range of useful lengths from 6 m to 30 m.
- Uses a barcode Scanner to passively and safely read detonator ID numbers on the blast pattern.
- A dedicated Blast Box programs, arms and fires the detonators with full 2-way communications.
- Detonator fits all standard boosters.

Key Benefits

- Uni tronic™ is ideal for quarry operators searching for effective means to reduce vibration during blasting, while preventing damage and minimizing the effect of operational or regulatory constraints on output.
- In many cases, blast pattern expansion using Uni tronic™ 500 detonators will minimize or offset any cost premium.
- Open pit operators will appreciate not only the vibration reduction, but also the potential benefits of cleaner, more stable highwalls, less backbreak, and improved cast performance.
- Fragmentation improvement has been a hallmark of EBS blasting, with resulting benefits in haul truck fill rates, crusher throughput, lower maintenance and overall cost reductions.
- The Uni tronic™ electronic blasting system offers increased safety and security for all operators through being able to know the condition of every hole before a blast, and in the use of specific equipment to control, program and fire the detonators.

Recommendations for Use

- Not for use in mines with a risk of coal dust or methane explosion.
- Uni tronic™ 500 detonators can only be tested; programmed and fired using dedicated Uni tronic™ equipment. Do not use any other programming or blasting equipment.
- Uni tronic™ 500 detonators are explosive devices and should be handled with care.
- The Uni tronic™ Scanner and Uni tronic™ Blast Box are designed for tough environments, but submersion in water and excessive impact must be avoided.

Technical Properties

Lead wire (mm)	0.6 Steel
Wire form, color	Duplex, Yellow
Wire insulation	Polypropylene
Tensile strength (N)	200
Explosives charge weight (mg)	900
Connector color	Green
Programmability (ms)	±1
Max delay time (ms)	10,000
Precision as coefficient of variation (%)	0.1

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Product Classification

Authorised Name: *Uni tronic™ Detonator 500*
 Proper Shipping Name: Detonators, electric
 UN No.: 0030 0456
 Classification: 1.1B 1.4S
 EC Type Certificate: ENB/D/162/11
 Approval Number: -

Authorised Name: *Uni tronic™ Network Tester*
 Approval Number: -

Authorised Name: *Uni tronic™ Blast Box 310*
 Approval Number: -

Storage and Handling

- Transport temperature range from -40 °C to +65 °C.
- Storage temperature range from -20 °C to +50 °C.
- Operating temperature range from -20 °C to +65 °C.
- *Uni tronic™* detonators have a storage life of 3 years in stable, temperate storage conditions.

If your application requires to operate the system outside this temperature range, please contact your local Orica Account Manager.

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.

Packaging Details

Uni tronic™ Detonator 500 is available in the following standard lengths and packaging:

Lead Length (m)	1.1B *		1.4S **	
	Units per Case	Weight per Case (kg)	Units per Case	Weight per Case (kg)
3	150	7.0	-	-
6	120	8.4	70	10.0
9	90	8.5	60	10.1
15	60	8.6	50	10.7
20	55	9.9	50	12.5
25	40	8.9	40	10.5
30	36	10.7	30	11.7
37	24	8.7	24	10.4

* Format: 3 - 25 m figure 8, 30 + 37 m spool

** Format: 6 - 37 m figure 8

Safety

Uni tronic™ Detonators have protection structures in the electronic circuitry, which give a high level of resistance to stray currents, over voltage, static electricity and electromagnetic radiation.

Care should be taken as with all detonators not to cause initiation by intense impact, friction or heat.

Training

This Technical Data Sheet is for information only. The *Uni tronic™* System should only be used by personnel who have been properly trained to use this system.

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Orica Norway AS

Røykenveien 18
 3412 LIERSTRANDA
 Norway
 Phone: +47 32 22 91 00
 Email: nordics@orica.com

Emergency Telephone Numbers

Within Norway: +47 91 70 58 50
 Outside Norway: contact local representative