

uni tronic™ 600 Electronic Blasting System



Blast Box 310/310R



Scanner 200



Duplex harness wire



Standard Detonator



RX Detonator

Description

uni tronic™ 600 is one of Orica's exciting Electronic Blasting Systems. It can be used in conjunction with:

- uni tronic™ 600 electronic detonators
- Duplex harness wire
- Scanner 200 with on-bench function testing of uni tronic™ 600 detonators
- Blast Box 310 or Blast Box 310R (with in-built radio modem for remote firing).

Applications

The uni tronic™ Electronic Blasting System is designed for use in quarry & construction operations as well in smaller open cut coal and metal mines. For more demanding application environments uni tronic™ 600 detonators are also available with heavy duty lead wires.

Technical Properties

Maximum delay time (ms)		10.000
Programmability (ms)		±1
Timing specification		
from 0 to 350 ms.: Standard deviation (ms)		≤ 0.1
from 350 ms to 10 s.: COV (%)		≤ 0.03
Hydrostatic pressure resistance (bar/day)		10 / 7
Shell length x diameter (mm)		89 x 7.6
Shell material		Copper Alloy
Base charge: PETN or Pentolite (mg)		780
Initiating charge: Lead Azide (mg)		120
Output strength		REF. DET. #3
Conductor: 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 color	Standard RX	red red
Connector	Material Terminals	PE brass

Scanner

Features other than those mentioned below can be found in the user manual.

Scanner type	200
Manufacturer	Orica
Comms. with Blast Box 310/310R	Bluetooth™
Sealing	IP64 / 67
Display	Colour VGA
Laser safety	EN6085-1 class 2
Battery type	Li-ion
Weight (kg)	1.0
Dimensions (cm)	27 x 11.5 x 0.8
Ingress Protections rating	IP 67

Blast Box

This equipment is customized and designed and built solely for uni tronic™ 600 detonators.

Box type	310/310R
Manufacturer	Orica
Blast size per box	800
Maximum blast size	1600 (synchronised with BB 310)
Comms. with Scanner	Bluetooth™
Remote initiation	No/Yes
Battery	EN6085-1 class 2
Battery type	NiMH
Weight (kg)	4.8
Dimensions (cm)	30 x 34
Ingress Protection rating	IP 54 (open case) IP 65 (closed case)

Key Benefits

- Reliable, effective and safe blasting is achieved because of the rugged, proven construction of the uni tronic™ detonator, with inherently safe testability on the blast pattern.
- Efficient operations on the blast pattern are afforded by the glove-friendly connector and duplex harness wire.
- Predictable blasting results with minimal environmental impact are achievable because of the high precision of uni tronic™ electronic detonators.
- Fragmentation optimization has been a hallmark of electronic blasting, with resulting benefits in loading rates, haul truck fill rates, crusher throughput, lower maintenance and overall cost reductions.
- In construction blasting under heavy mats, the testability ensures that damage to the surface connections - when placing the heavy mats - are identified. Therefore, potential misfires due to undetected damage of the surface connections can be avoided.
- Open cut coal operators will appreciate not only the improved vibration control, but also the potential benefits of cleaner, more stable high walls, less back break, and improved cast performance.

Recommendations for Use

- Not for use in mines with a risk of coal dust or methane explosion.
- uni tronic™ 600 detonators are explosive devices and should be handled with care.
- uni tronic™ 600 equipment are electronic devices designed to withstand mine, quarry and construction environments but submersion in water and excessive impact must be avoided.
- uni tronic™ 600 detonators can only be tested, programmed and fired with uni tronic™ 600 equipment. Do not use any other programming or blasting equipment.
- Never open uni tronic™ 600 equipment. It should be serviced or repaired only by Orica or approved agents.
- 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.

Product Classification

Authorised Name:	uni tronic™ 600
Proper Shipping Name:	Detonators, electric
UN No.:	0030 0456
Classification:	1.1B 1.4S
EC Type Certificate:	0589.EXP.2779/18

Packaging Details

uni tronic™ 600 (with Standard wire)

Length (m)	Configuration	1.1B		1.4S	
		Units per Case	Weight per Case (kg)	Units per Case	Weight per Case (kg)
3	Coil	100	4.9	-	-
6	Coil	80	5.8	40	6.1
9	Coil	60	5.9	35	6.2
15	Spool	66	11.3	32	8.6
20	Spool	66	13.5	32	9.8
25	Spool	54	13.2	32	10.7
30	Spool	36	10.6	32	11.9
37	Spool	30	10.7	16	7.7
55	Spool	25	12.4	16	9.7

uni tronic™ 600 RX

Length (m)	Configuration	1.1B		1.4S	
		Units per Case	Weight per Case (kg)	Units per Case	Weight per Case (kg)
10	Spool	66	11,0	32	7,7
15	Spool	60	12,7	32	9,1
20	Spool	48	12,8	32	10,7
25	Spool	30	10,2	16	6,8
30	Spool	30	11,6	16	7,5
37	Spool	30	13,5	16	8,5
55	Spool	18	11,9	12	8,8

Storage and Handling

Detonators

- Transport temperature range from -40 °C to +65 °C.
- Operating temperature range from -20 °C to +70 °C
- Storage temperature range from -40 °C to +50 °C.
- Stacks of cases should be no more than 2 m high.
- Storage life of up to 5 years in stable, temperate storage conditions in an approved magazine.

Control equipment

- Store at moderate temperatures and humidity.

Activity		Scanner 200, Blast Box 310/310R
Operating	min.	-20 °C
	max.	60 °C
Charging	min.	0 °C
	max.	40 °C
Transport/Store	min.	-25 °C
	max.	65 °C

If your application requires to operate the system outside the specified temperature range, please contact your DEXPLOC representative.

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 DEXPLOC representative for information on safe practices.

All uni tronic™ 600 control equipment contains a battery. 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 requirements.

Safety

uni tronic™ 600 detonators can be initiated by extremes of shock, friction or mechanical impact. As with all explosives, uni tronic™ detonators should be handled and stored with care and must be kept clear of flame and excessive heat.

Training

This Technical Data Sheet is for information only. The uni tronic™ 600 Equipment should only be used by personnel who have been properly trained to use this equipment.

Equipment service

The uni tronic™ 600 Equipment is powered by rechargeable batteries, which must be recharged regularly.

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

Harness Wire

High quality Duplex harness wire is used to connect the uni tronic™ 600 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.

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