dexploc TECHNICAL INFORMATION

eDev™ II
Electronic Blasting System


Blast box 610


Scanner 260


Duplex harness wire


Standard Detonator


RX Detonator

Description
eDev™ II is one of Orica's exciting Electronic Blasting Systems. It can be used in conjunction with:
- eDev™ II detonators
- Blast Box 610
- Scanner 260 with on-bench function testing of eDev™ II detonators
- Duplex harness wire

Application
The eDev™ II system is designed specifically for use in civil tunnels and in mine development, including shaft sinking. It can be used in conjunction with the powerful SHOTPlus™-Tunnel design software.

Technical Properties

Maximum delay time (ms)		20.000
Programmability (ms)		±1
Timing specification **from 0 to 1 s.: Standard deviation (ms)** **from 1 to 20 s.: COV (%)**		 ≤ 0.1 ≤ 0.01
Hydrostatic pressure resistance (bar/day)		10 / 7
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 1.80
Wire tensile strength (N)	Standard RX	200 250
Insulation material	Standard RX	PP TPU
Wire color	Standard RX	ψελλοω ρεδ
Connector color	Standard RX	orange orange

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

Scanner tupe	**260**
Manufacturer	Orica
Comms. with Blast Box 610	Bluetooth™
Ingress Protections rating	IP 67
Display	Color VGA
Laser safety	EN6085-1 class 2
Battery type	Li-ion
Weight (kg)	1.0
Dimensions (cm)	27 x 11.5 x 0.8

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Blast Box

This equipment is customized and designed and built solely for eDev™ II detonators.

Box type	610
Manufacturer	Orica
Max blast size	800
Comms. with Scanner	Bluetooth™
Compatible with Scanner	260
Remote initiation	No
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

- eDev™ II blasting equipment presents a family of field-proven, rugged hardware that can tolerate all relevant blasting conditions.
- The equipment has battery life designed to give reliable functionality for a full working day.
- Capturing of the detonator's unique ID at the face is inherently safe with passive scanning of bar codes.
- The eDev™ II Scanner 260 allows safe, direct communication with eDev™ II detonators at the face by testing of the dual voltage detonators in low voltage mode.
- eDev™ II detonators are fully programmable electronic detonators which enables.
  - Any desired delay between 0 and 20.000 ms, at 1 ms increments, to be used.
  - Novel timing regimes can easily be tried to optimize blasting results.
  - Greatly reduced inventory and working capital.
- Precise firing times allow blasts to be planned with no chance of overlap and every hole firing individually; this greatly reduces the chance of excessive vibration and over break.
- eDev™ II connector is glove-friendly, robust at all operating temperatures and accepts duplex harness wire for quick and easy connections at the face.

Recommendations for Use

- Not for use in mines with a risk of coal dust or methane explosion.
- eDev™ II detonators are explosive devices and should be handled with care.
- eDev™ II equipment are electronic devices designed to withstand mine, quarry and construction environments but submersion in water and excessive impact must be avoided.
- eDev™ II detonators can only be tested, programmed and fired with eDev™ II equipment. Do not use any other programming or blasting equipment.
- Never open eDev™ II 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:	eDev™ II	
Proper Shipping Name:	Detonators, electric	
UN No.:	0030	0456
Classification:	1.1B	1.4S
EC Type Certificate:	0589.EXP.1732/19	

All regulations pertaining to the handling and use of such explosives apply.

Packaging Details

eDev™ II (with Standard wire)

Length (m)	1.1B		1.4S	
	Units per Case	Weight per Case (kg)	Units per Case	Weight per Case (kg)
4*	90	5.0	-	-
5*	85	5.5	-	-
6	80	5.8	40	6.1
7	75	6.0	40	6.4
8	70	6.2	35	5.9

*Non-standard, only available to special order

eDev™ II RX

Length (m)	1.1B		1.4S	
	Units per Case	Weight per Case (kg)	Units per Case	Weight per Case (kg)
4*	80	4.4	-	-
5*	75	4.9	-	-
6	70	5.1	40	6.1
7	65	5.2	40	6.4
8	60	5.3	35	5.9

*Non-standard, only available to special order

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Storage and Handling

Storage and use temperatures

Detonators

- Transport temperature range from -40 °C to +65 °C
- Operating temperature range from -20 °C to +65 °C
- Storage temperature range from -20 °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

Activity		Scanner 260, Blast Box 610
Operating	min. max.	-20 °C 60 °C
Charging	min. max.	0 °C 40 °C
Transport/Store	min. max.	-25 °C 65 °C

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

Disposal

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

All eDev™ II 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

eDev™ II 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.

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

Not for use in mines with a risk of coal dust or methane explosion.

Training

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

Equipment service

eDev™ II control equipment is powered by rechargeable batteries, which must be recharged regularly.
It is recommended to return the equipment to a 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 eDev™ 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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