

NONEL® LP

Nonelectric Long Period Delay Detonator



Product Description

Nonelectric Long Period Delay Detonator NONEL LP units consist of a length of yellow shock tube with a High Strength detonator attached to one end and the other end sealed. A J-hook is affixed near the sealed end, providing easy means of connection to detonating cord. Easy-to-read, color-coded delay tags display the delay number and nominal firing time prominently. NONEL LP units are designed to provide in-hole delay time for underground (non-coal) and special construction blasting applications that require long delay times to improve relief and fragmentation (such as drift development, raise and shaft work, as well as slope and tunnel blast rounds). They are typically used with detonating cord but can also be used with NONEL EZTL detonators for additional timing flexibility.



Technical Information

Properties

Net Explosive Content per 100 units
(Excluding Shock Tube)

0.0885 kg
0.1947 lbs

Net Explosive Content per 100,000 m shock tube

0.1043kg
0.2299 lbs

Hazardous Shipping Description

Detonator assemblies nonelectric,
1.4B, UN 0361 PG II
1.1B, UN 0360 PG II



Period / Delay Time (msec)	Delay Tag Color	Period / Delay Time (msec)	Connector Block Color
0 / 17	Orange	10 / 4600	Yellow
1 / 200	Yellow	11 / 5500	Lt Blue
2 / 400	Green	12 / 6400	Purple
3 / 600	Lt Blue	13 / 7400	Tan
4 / 1000	Tan	14 / 8500	Red
5 / 1400	Gray	15 / 9600	Gray
6 / 1800	Blue		
7 / 2400	Pink		
8 / 3000	White		
9 / 3800	Orange		

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See Product Disclaimer on next page.



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Application Recommendations

ALWAYS use the plastic J-hook when using a detonating cord trunkline to tie-in NONEL LP nonelectric delay detonators. A minimum 3 g/m (18 gr/ft) detonating cord trunkline is required for use with the J-hook.

ALWAYS ensure the shock tube is connected at right angles to the detonating cord trunkline and that the shock tube leads returning to the hole collar do not cross over or lay near any detonating cord trunkline. If the detonating cord touches the shock tube or is closer than 6 inches (15 cm), the shock tube may be damaged and misfires may result.

ALWAYS connect detonating cord using approved knots and tight connections. Place detonating cord hook-ups in closed loops and use with cross-ties.

ALWAYS make sure that no shock tube or detonating cord can be pinched between the the basket, platform or boom and the face, ribs, back or floor. Rupturing or damaging shock tube or detonating cord may cause misfires.

Where NONEL LP detonator lead lengths permit, bunch blasting provides the most efficient means of hooking up rounds in drifts, tunnels, shafts and raises.

NEVER put more than 20 NONEL LP delays per bunch. A minimum 5 g/m (25 gr/ft) detonating cord is required for bunch blasting.

NEVER cut or trim seals from the shock tube of a NONEL LP delay. If shock tubing is cut or is suspected of being cut or damaged during loading, ALWAYS reprime the borehole using a new unit of the same delay period.

NEVER drive any equipment over the shock tube or detonating cord. Whenever charging from a maneuverable basket, platform or boom, ALWAYS make sure that no shock tube or detonating cord is entangled or can become entangled.

Transportation, Storage and Handling

NONEL LP must be transported, stored, handled and used in conformity with all federal, state, provincial and local laws and regulations.

For maximum shelf life (2 years), NONEL LP must be stored in a cool, dry, well ventilated magazine. Explosive inventory should be rotated. Avoid using new materials before the old. For recommended good practices in transporting, storing, handling and using this product, see the booklet "Prevention of Accidents in the Use of Explosive Materials" packed inside each case and the Safety Library Publications of the Institute of Makers of Explosives.



Technical Information

Packaging

Length		Case Type		Coil Type	Quantity/ Case	
m	ft	1.4B	1.1B		1.4B	1.1B
1.2	4	S	L	Detpak	90	300
2.4	8	S	L	Detpak	90	300
3.6	12	S	L	Detpak	80	200
4.2	14	S	L	Detpak	80	200
4.9	16	S	L	Detpak	80	200
6.0	20	S	L	Detpak	60	180
7.2	24	S	L	Detpak	50	150

- Length rounded to nearest one-half meter.
- Case weight varies by length & delay; see case label for exact weight.

Case Dimensions

S - 460 x 230 x 255 mm
L - 640 x 320 x 430 mm

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