

Electronic Initiation System



Product Description

The SMARTSHOT electronic initiation system is an innovative advance in technology, enabling users to achieve the accurate timing benefits of electronic initiation systems with the easy connections of current nonelectric shock tube systems. The SMARTSHOT electronic initiation system is comprised of the following components:

- **SMARTSHOT Electronic Detonator (1)** includes the detonator, downline and interhole wires with robust easy-to-use male/female connectors.
- **String Starter (2)** is placed between the connected string of detonators and the blast equipment. Facilitates 2-wire to 4-wire communication and acts as an identifier to assist in fault finding.
- **SMARTSHOT End Plug (3)** is placed at the end of each detonator string to indicate the end of the string to the control equipment.
- **2-Wire Busline (4)** connects the completed blast to the Bench Box.
- **SMARTSHOT Tagger (5)** is a user-friendly, handheld unit designed to test individual detonators, strings of detonators, define hole configurations and assign timing to a string of detonators. The tagger is menu driven and follows a simple, logical sequence of blast testing and programming.
- **SMARTSHOT Bench Box (6)** can be used as a firing unit or configured as the receiver unit that allows remote firing and is positioned up to 2000 meters (6560 feet) from the furthest detonator on the blast. When used in remote firing configuration, the Bench Box receives the signal from the Base Station and passes it to the detonators in order to initiate

Properties

MSDS #1149

Detonator Shell	Copper
Cable Color	Green with colored stripe
Tensile Strength	>250 N / 56 lbs
System Operating Temperature (range)	-20° to +50°C -4° to +122°F
Detonator Strength	#12
Net Explosive Quantity (per 100 units)	0.1000 kg / 0.2205 lbs
Maximum Delay	20,000 ms
Maximum Detonators per Blaster	1600*
With expander module	2400*
Remote Distance Wireless	3,000 Meters / 9850 ft *
Lead-in-Length Wired	2,000 Meters / 6550 ft *

* Dependent on shot layout. Please consult your Dyno Nobel representative



Hazardous Shipping Description

Detonators, electric, 1.4B, UN0255 PG II
 Detonators, electric, 1.4S, UN0456 PG II



the blast. The Connection Block (stored inside the Bench Box) has terminals to connect the 2-wire lead to the String Starters on the blast.

- **SMARTSHOT Base Station (7)** is positioned at a point of safety and used with the Smart Key to maximize safe initiation of the blast. The Base Station uses secure radio frequency (RF) links, leaky feeder communications or a simple 2-wire connection to “talk” to the Bench Box.

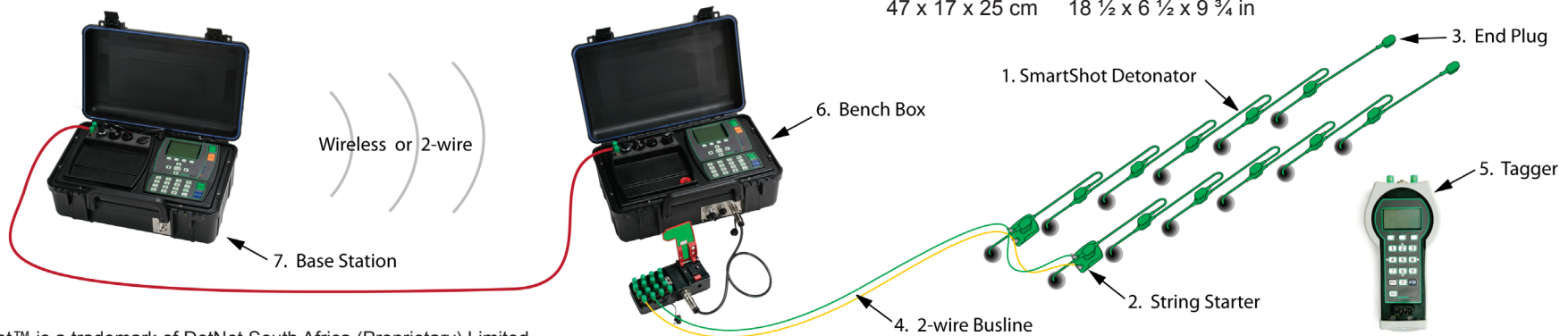
The connectors are rugged and water resistant and are easily handled while wearing gloves. The SMARTSHOT Electronic Initiation System passes ESD Resistance (EN 13763-13) and RF Immunity (CEN TS 13763-27) test requirements as well as other European Standards of Compliance for electronic detonators.

Application Recommendations

Due to the system's flexibility, contact your local Dyno Nobel representative for Application Recommendations.

Transportation, Storage and Handling

- SMARTSHOT must be transported, stored, handled and used in conformity with all federal, state, provincial and local laws and regulations.
- For maximum shelf life (3 years), SMARTSHOT 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.



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Packaging

Length (m)		Length (ft)		Case Quantity	Case Weight	
Downline	Surface	Downline	Surface		kg	lbs
6	0.9	20	3	18	12	26.5
10	7	33	23	18	8.8	19.3
15	10	49	33	18	12.2	26.9
20	0.2	66	0.66	18	14.9	32.8
30	0.2	98	0.66	18	10.4	22.9
35	0.2	115	0.66	18	13.9	30.6
45	0.2	148	0.66	18	21.2	46.7

Length rounded to nearest whole meter / foot.

SMARTSHOT is available in additional length configurations. Please consult your Dyno Nobel representative for details.

Case Dimensions

47 x 17 x 25 cm 18 ½ x 6 ½ x 9 ¾ in