



# PRODUCT INFORMATION

## BROCHURE

1.4B

# E★STAR STARTER



**E★STAR Starter** – The explosive industry’s premium electronic starting system for Shock Tube or detonating cord initiation.

### ADVANTAGES

- Functional bunch-block design for locking Shock Tube or detonating cord in place.
- Prioritizes safety through proven electronic detonator technology.
- Programmable electronic detonator.
- Hardwire or wireless remote capabilities for safe distance requirements.

## PRODUCT OVERVIEW

### TECHNICAL DESCRIPTION

Factory pre-programmed 712 ms or 901 ms delay depending on factory of origin, or field programmability for preferred delay timing in a wide variety of starter applications, specifically multiple bench blasts or separate underground headings.

### APPLICATION RECOMMENDATIONS

- Surface and underground operations
- Shock Tube initiation or detonating cord initiation
- Accommodates up to (2) shock tubes
- Accommodates up to (2) Det-cords
- Operating temperature range: -30 °C to +60 °C (winter to summer in surface open pit)
- Use within 28 days for best water resistance: 1 MPa / 28 days

**PROPERTIES**

Item	Feature	Details
<b>Detonator</b>	Shell Material	Aluminium
	Shell Load	Equivalent of 180 mg base charge allows to initiate 3 to 5 grams per meter PETN detcord or Shock Tube.
	Detonator Housing	Detonator housed within a red colored plastic clip (extended Bunch connector) that allows for perpendicular connection of the Shock Tube or detonating cord.
	Maximum Delay	20,000 ms (this allows for long-period delayed blasts from a single Blasting Machine).
	Delays available	1 to 20,000 ms Programmed in 1 ms increments.
	Programmability	Factory pre-programmed value used OR field programmability. *
	Accuracy	Within 0.01% of programmed value.
	Traceability	Individual detonator traceability – serial # on ASIC memory.
	Polarity	Not polarity sensitive.
	Resistance to EMP, EMC, RF and electromagnetic interference	Meets minimum requirements for CE 13763-27 standards.
Item	Feature	Details
<b>Leg-Wire &amp; Bus Line</b>	Bus- line compatibility	Compatible with E★STAR connector (0.8 mm Cu Bus-line)
<b>Blasting Machines</b>		<b><i>Lead line length of up to (610 m) (2000 ft) may be used for safety.</i></b>
DBM-1	Lead-wire length	Up to (2,000 ft) (610 m) 0.8 mm Cu
DBM1600-2-K or RC	Lead-wire length	Up to (2,000 ft) (610 m) 0.8 mm Cu
<b>Detonator Connector</b>	Material	Standard Plastic Connector
	Bus-line connection	Accepts single 0.6mm or 0.8mm Cu Bus line

\* Generally, a user will use the default 901 ms or 712 ms as the firing time, thus no need for a Logger. DBM can autodetect the detonator by using the ABD (Auto Bus Detect) method.

## STANDARD PACKAGING

Length Product		Configuration	Quantity Per Product		Gross Weight Per Shipping Box		Net Explosive Quantity Per Shipping Box	Shipping Box		
			Shipping Box					Part Number		Class
Ft	m	Type	Inner	Outer	Lbs.	Kg.	g	Inner	Outer	Type
16	4.9	Fast 8	N/A	80	19.8	9.0	20.0	N/A	80	1.4B
200	61	Spoiled	N/A	8	13.4	16.1	2.0	NA	8	1.4B
500	152.5	Spoiled	N/A	8	22.0	10.0	2.0	N/A	8	1.4B
1000	305.0	Spoiled	N/A	4	19.8	9.0	1.0	N/A	4	1.4B

UNDG classification: 1.1B

### SHELF LIFE, STORAGE & DISPOSAL

- For optimum accuracy, use within five years from date of manufacture under good storage conditions.
- Store in accordance with all applicable local, state, provincial and federal laws.
- Disposal of explosive materials can be hazardous. Methods of safe disposal of explosives may vary depending on the user's situation. Please contact an Austin Powder Technical Representative for information on safe practices. under good storage conditions.

### TRANSPORT - UN CLASSIFICATION

Shipping Name: Detonators, Electric  
 Class & Division: 1.4B  
 ID Number: UN0255

### US DOT REFERENCE NUMBER

EX-2014030694

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**AUSTIN POWDER**

**Our Mission is to improve the world we live in through the safe and responsible use of explosives.**

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