E★STAR Seismic Detonators

PRODUCT INFORMATION BROCHURE

E★STAR Seismic electronic detonators have been designed to provide the precise control necessary to produce the most accurate and consistent seismic record. The E★STAR Seismic detonator may be programmed in 1-millisecond increments from one (1) millisecond up to twenty (20) seconds. using the dedicated DLG 1600-100-S Logger. Unique serial number for each E★STAR Seismic detonator provides “Cradle to Grave“ traceability.

ADVANTAGES

- 750 mg PETN base charge far exceeds the standard #8 strength detonator.
- Industry’s most user-friendly and rugged electronic seismic detonator.
- Designed to fire pattern shots up to ten detonators simultaneously.
- Legwire – HDPE insulation for added protection from current leakage. 0.8 mm diameter copper wire (#20 AWG).
- Advanced pre-fire diagnostics coupled to the communication protocol.

PROPERTIES

E★STAR Seismic detonators contain a capacitor, a logic and timing circuit, and pyrotechnic ignition system manufactured by Austin Powder to provide a complete unit. When the capacitor is charged by the DBM 10-S Digital Blasting Machine, the internal capacitor provides the energy that initiates the “bridge wire“ and subsequently detonates the base charge.
E★STAR Seismic Detonators

DLG1600-100S E★STAR
Seismic Logger

DBM 10-S Digital Blasting Machine

WARNING: Use of this logger requires operator trained in blasting techniques. CONNECT ONLY TO E★STAR DETONATORS.
**E★STAR DBM 10-S Digital Blasting Machine**

**TOP END**
- Standby and Arming Indicator (LED)
- Arm Switch
- Ready to Fire Indicator (LED)
- On/Off and Mode Switch
- Detonator Leg Wires Terminals
- 2 Lines 16 Characters Vacuum Fluorescent Display (VFD)

**WARNING**: Use of this machine requires operator trained and certified in blasting techniques. CONNECT ONLY TO E★STAR DETONATORS. Do NOT use this machine with standard or other electronic detonators.

Maximum load: 10 E★STAR detonators

**E★STAR BLASTING MACHINE**
- Model DBM10-S
- Serial No.
- Austin Powder Co. Cleveland, OH

**OPERATING INSTRUCTIONS**

1. Ensure that no more than TEN (10) detonators are connected.
2. Batteries alone can fire detonators. KEEP BATTERIES AWAY FROM THE BLASTING CIRCUITS.
3. Never connect blasting circuit to Blasting Machine until you are ready to fire.
4. MAKE SURE BLAST AREA IS CLEAR AND ALL PERSONNEL HAVE BEEN REMOVED TO A SAFE LOCATION.
5. If Blasting Machine is on Standby (STANDBY indicator is flashing), go to step 7.
6. Depress ONOFF switch to turn Blasting Machine on.
7. Depress ARM switch to verify and charge detonators.
8. Observe display, if "FAILED LINE TEST" or "LINE OVERLOAD" appears, standard electric detonators may be connected, or the blasting circuit has excessive leakage current.
9. The ARMS indicator is on steady during verify and charging.
10. The Blasting Machine is ready to receive the high voltage fire signal when the READY TO FIRE indicator comes on.
11. The Blasting Machine goes to Standby 30 seconds after the fire signal is received.
12. The Blasting Machine turns off after 30 minutes of inactivity.
13. The Blasting Machine may be turned off by depressing the ONOFF switch until the unit powers down.
14. If the Blasting Machine should fail to fire, notify personnel of the blast delay and resolve all losses.

Power: External 10-16VDC 0.7A

Austin Powder Company, Cleveland, Ohio

**BOTTOM END**
- Power and RS232 Port Connector
- Logger Connector
- Logger
- BOOM BOX HV
- LOGGER
E★STAR DLG 1600-100-S Seismic Logger

WARNING: Use of this logger requires operator trained in blasting techniques. CONNECT ONLY TO E★STAR DETONATORS.

LOGGER
Model: DLG1600-100-S Serial No.
Austin Powder Company, Cleveland, OH

Detonator Leg Wires and Line Terminals

4 Lines
20 Characters
Liquid Crystal Display (LCD)

Power and Backlight On and Off Key

Keypad

Battery Charging Indicators (LED’s)

Blasting Machine, Logger and Battery Charger Connector

DLG1600-100-S
E★STAR Seismic Detonators

REQUIRED EQUIPMENT
The use of this system requires specific training in all components. This training is in addition to the normal, required training that all blasters and blasting personnel have received.

Only equipment specifically designed for use with Austin Powder E★STAR Seismic detonators is permitted. The currently approved equipment is a DLG 1600-100-S logger and a DBM 10-S Digital Blasting Machine* manufactured by Dan-Mar Co., Inc. An “operators” manual is to be available at all times when using this equipment.

*Warning: The DBM 10-S Digital Blasting Machine is designed for use only with E★STAR Seismic detonators. Do Not attempt to use this blasting machine with any other detonator. The misuse of this blasting machine with standard electric detonators may result in instantaneous detonator initiation.

STANDARD PACKAGING DETAILS

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STANDARD TECHNICAL DESCRIPTION
Electronic programmable detonators

STORAGE
Store in accordance with all applicable local, state, provincial and federal laws.

SHELF LIFE
For optimum accuracy, use within five years from date of manufacture under good storage conditions.

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