Introduction

The BlastWeb® electronic initiation system is an industry leading, centralised blasting system specifically developed for blasting in underground environments. With limited user interaction and simple to use method, BlastWeb® is the best solution for any underground blasting application.

This system provides controlled blasting and improved safety, allowing blasts to be initiated from a surface control room. Blastweb® is suitable for use in all types of underground mining and civil blasting operations where a central point of control is required.

Features & Benefits

- **User friendly**
  Minimal components to simplify use. Firmware can be uploaded remotely without disrupting operations.
- **Centralized Blasting**
  The web type interface allows information to be easily accessible to view real time events. The self-diagnostic system provides real-time data and blasts reports to assist and drive decision making.
- **Safety & Security**
  Safe selective blasting is ensured from a central point on surface or from a safe location. A unique password and specific SmartKey is required for blast initiation.
- **System Limits**
  Up to 24 BCUs can be fired in a single setting and up to 28 000 detonators can be initiated.
- **Compatible with the following initiation systems/detonators**
  - BCU 4G
  - DigiShot® Plus
  - DriftShot®
  - NetShock
  - NONEL®
- **Compatible with multiple communication backbones**
  - WiFi
  - Ethernet
  - Copper
  - Fiber
  - Leaky Feeder

DetNet® continues to strive towards excellence in electronic initiation. As a world leader in our field, we aim to deliver world-class safety, the latest technology and consistent quality; resulting in improved loading and fragmentation, to ensure mining becomes more sustainable today and into the future.

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blastweb®

System Components

Blast Control Unit

- The Blast Control Unit (BCU) provides the required blast voltage and encoded signal necessary to initiate the blast. The BCU can be used in a centralised or standalone blasting mode, blasting a maximum of six blasting points from a point of safety using a Red SmartKey.
- The BCU can be powered from 110, 220 or 525 V and incorporates a battery back-up system in case of power failures.
- The BCU can link via a Copper or Ethernet backbone to other BCUs and a Surface Blast Controller to form an integrated communication system which enables users to have access to real time information on all events occurring and to blast the entire installation from a central point.

Fixed BCU

Portable BCU

The Fixed system is modular in design and can be configured to suit any mine application.	Provides the flexibility to blast in areas with limited or no infrastructure that cannot support a fixed BCU.
It is connected to a permanently installed blast network cable infrastructure between the BCU and each blasting point.	It is powered by a 12V battery and only communicates when it is connected and logged-onto the communication infrastructure and Surface Blast Controller.
Built in battery back-up providing power to the system for up to 5 hours in cases of power breakdowns.	The portable BCU can easily be replaced and configured to prevent any blast delays.

Technical			
Power Supply	110V, 220V or 525 VAC	Battery Life	Approximately 6 hours operating time
Temperature limits	-20°C to +70°C -4°F to +158°F	Temperature limits	-10°C to +55°C 14°F to +131°F
Weight	± 50kg	Weight	10.5kg
Water resistance	IP54	Water resistance	IP54

Surface Blast Controller

- The Surface Blast Controller allows centralised blasting to take place from the control room and is password protected.
- All events are displayed and stored on a real time basis and the Surface Blast Controller supplies warnings of all faults or errors on the system. This enables users to do fault diagnostics and fix all problems prior to blasting time.
- Blast instructions are sent to all selected BCUs when prompted by the blaster. It also compiles a blast reports to supply blast information.
- A blast report can be generated that contains an events history for reporting purposes.

CE4 Tagger

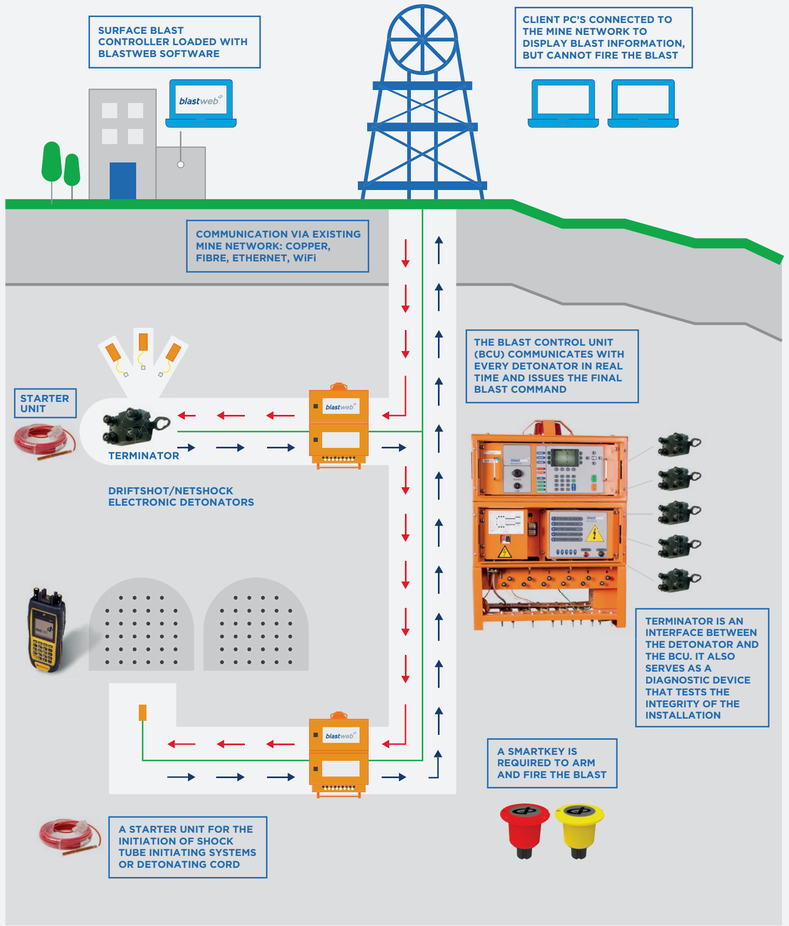
The CE4 Tagger is a leading innovation from DetNet® and the best of its kind in the industry:

- Tests leakage and troubleshoots the bench before leaving.
- Single device on-bench used for tagging, testing and final troubleshooting before leaving the bench.
- Scratch-proof glass screen provides excellent visibility.
- User alerts engage multiple sensory formats: tactile (vibration), audible (speaker) feedback and visual alerts through high-bright LEDs.
- GPS enabled to aid in detonator trouble-shooting.
- Excellent battery management technology and standard USB charging.

SmartKeys

The **Yellow SmartKey** does not contain the blast command and is used in a central blast configuration. It requires the blast command to be sent from the Surface Blast Controller, when the whole mine is cleared from personnel and instruction to blast is received.

The **Red Smartkey** contains the required blast command and coded signal, which enables users to use BCUs in a standalone mode.

The **Orange SmartKey** initiates Local Blasting and requires only a PIN after key is inserted. After a grace period, the Orange SmartKey will cause the BCU to Program, Arm and Fire without any further user input i.e. no Fire buttons appear.

blastweb® Deployment