



Safe, Reliable

# BLASTPED

Centralized Blast Initiation



Blast PED provides a safe, remote blast initiation system for mines by eliminating the high cost of installing and maintaining large firing cable networks, and hence reduce the safety concerns (e.g. induction) associated with these cable based systems.

Don't have people in harm's way – use BlastPED

## UNDERGROUND MINES

### BlastPED PED® Version

this system uses the PED® Transmission System to communicate with remotely installed receiver/exploders to initiate electric detonators (blasting caps).

### BlastPED Leaky Feeder Version

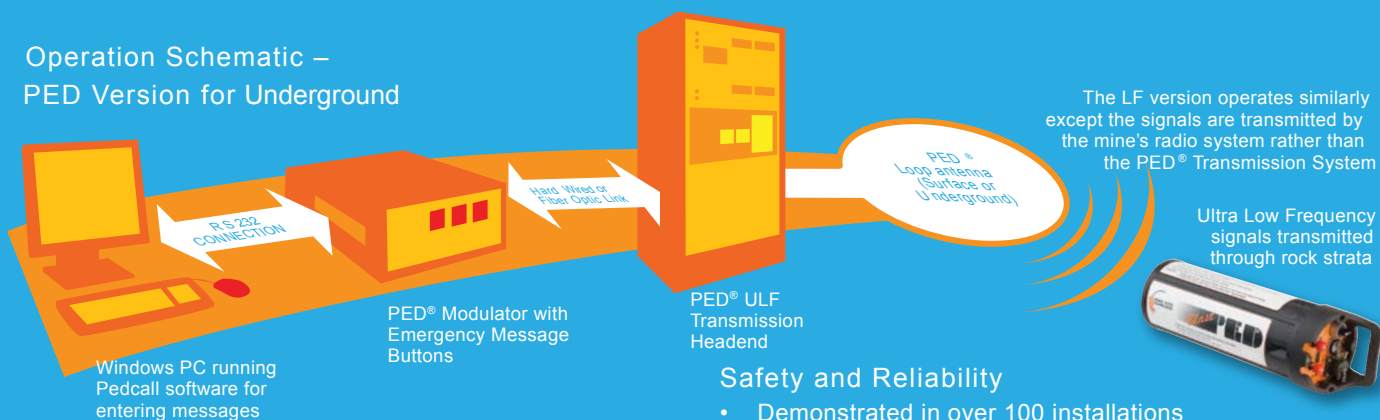
use's a mine's leaky feeder radio system to communicate with remotely installed receiver/exploders to initiate electric detonators (blasting caps).

## OPEN CUT SURFACE MINES AND QUARRIES

### BlastPED ST Version

also known as BlastPED EXEL version was developed for use in surface applications and uses more typical surface radio systems to communicate between a Master Control Unit and a Remote Receiver/Exploder. A key difference to the other two types of BlastPED is this version initiates signal tube (shock tube) directly, rather than initiating an electric detonator.

## Operation Schematic – PED Version for Underground



## Cost Benefits

### Underground

Experience at mines using BlastPED has shown eliminating extensive cabling or signal tube runs can increase production time per shift can by an average of 45 minutes as clearing the mine of all people is simplified.

- Reducing the number of misfires by eliminating extensive cabling networks.
- With no personnel underground during blasting, drill holes do not need to be grouted to prevent fumes can spread outside blast areas via these drill holes.
- Shotfirers are not required to prolong shifts to initiate blasts.

## Operation Schematic – ST Version for Surface Mines



### Surface

- By reducing signal tube consumption (currently approx. 300m per shot at an average of 3 shots/week) the system payback can be very short.
- Manpower and time costs are significantly reduced for shot setup and clearance, therefore increased productivity through better utilisation of your truck/shovel fleet.

## Safety and Reliability

- Demonstrated in over 100 installations since the first installation in 1995.
- Compliance with appropriate blasting device standards.
- Based on this compliance, its security of operation, and the results of rigorous Risk Assessments, BlastPED has received approval or recognition for use by various mining authorities around the world, including Australia, Canada, United States, South Africa and Chile.

The system security is based on the unique operating frequency and coding techniques of the PED® system. Key features in relation to PED® which contribute to the levels of security include:

- Sophisticated encoding and decoding techniques in the PED® signalling system which ensures absolute integrity of the signal.
- Security is further increased by the requirement for two separate messages to be transmitted before a blast can be initiated. That is, a valid "ARM" command must be received and then (within ten minutes or the system resets) a valid "BLAST" command must be received for power to be applied to the detonator circuit.
- Additionally, the valid ARM and BLAST commands are not contained on the PC's hard disk. Valid commands are read off specially coded external disks, which are kept in a secure location and are only accessed by an authorised person.

The safe use of BlastPED requires operational procedures to be put in place by the mine. These are not dissimilar to those used for mains firing systems. Key procedures include:

- Only authorised & trained personnel use the system.
- All aspects of the system's use is understood by those involved in its operation, from installing the BlastPED at a face, typing in the commands at the PC, to the recovery of the BlastPED receiver.
- A system to confirm that all personnel have withdrawn to a safe area before blasting is in place.

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