



PBE

**INNOVATING SAFETY
POWERING PRODUCTIVITY**

Underground Two-way Communications

Mine Wide Monitoring and Control

Personnel and Equipment Tracking

Gas and Atmospheric Monitoring

Conveyor and Motion Monitors

Fire and Dust Suppression

Product Catalogue

The PBE Group

The PBE mission has always been to design and build reliable, high tech equipment for mine safety and productivity. Four decades later that tradition continues as we provide mine-wide monitoring and communications equipment all over the world.

PBE has installed its proprietary personnel and vehicle tracking system in over 100 underground mines, enabling real-time reporting and tracking information, improving mine safety and productivity. The PBE MineBoss™ monitoring system is currently operating in over 300 U.S. mines, and we are the leading U.S. manufacturer of conveyor monitoring and controls, wired and wireless gas monitoring, fire and dust suppression and paging telephone lines, with installations in mining operations all over the globe.

In 2012, PBE acquired Minecom as part of its expansion plan within the Asia Pacific region creating PBE Australia. PBE's Minecom Leaky Feeder systems are often installed in conjunction with our personnel and vehicle tracking system. Not only are the Minecom Leaky Feeder and PBE tracking systems suited for post-accident applications, they serve as superior productivity tools.

In 2013, PBE acquired Mine Radio Systems (MRS). This acquisition solidified our commitment to customer oriented global sales and local service.

The PBE Group is a constant innovator with significant investments in R&D. Recent and imminent projects include our Generation 4 leaky feeder amplifier, Proximity Alert System, wireless gas monitoring, underground text messaging and ventilation on demand.

With global sales and local service The PBE Group are your one-stop-shop for mine safety and productivity to support your mining operations now and for years to come.



Industries We Serve

PBE was founded to supply eastern U.S. coal mines with quality electronic equipment and we continue to do so, but over the years we have expanded our sales to include many other industries all over the world.

Currently we sell equipment to:

Coal Mines

- Underground
- Surface

Metal and Non-Metal Mines

- Underground
- Surface

Natural Gas Producers

- Tunnelling Operations
- Construction Industries
- Water Treatment Plants.

Even if we did not list your industry specifically, our versatile and varying product lines mean we have something for everyone, whether it is a total monitoring solution or a simple tilt level switch.

For more information and all your wired or wireless solutions, visit our website or contact your local sales representative.



Underground and Surface Radio Communications

PBE's Minecom Leaky Feeder System (VHF & UHF) provides a reliable, easily expandable underground communications system as well as a backbone for our tracking and safety products.

The PBE Minecom Leaky Feeder system is the most reliable, clear and efficient two-way communications on the market with digital capabilities.

Each Minecom Leaky Feeder System will be tailored to specific site requirements to provide the best radio coverage and data communications. The Minecom Leaky Feeder system is a mine radio system that can provide complete communications coverage for your mine site including above ground site linking.

Products

- Minecom Leaky Feeder System (VHF & UHF)
- Minecom Head End Combiner
- Minecom Leaky Feeder Cable
- Minecom BDA-4 Bidirectional Line Amplifier
- Minecom Branch Units (Single and Dual)
- Minecom Power Coupler
- Minecom Power Station
- Minecom Joiner and Termination Boxes
- Minecom Antenna Coupler
- Model 1925 Power Supply
- Model 1950A Leaky Feeder Power Barrier
- Model 1954, 1955 Battery Backup
- Model 1965 Wireless Trunk Line Access Point
- Model 1968, 1969 Leaky Feeder Balancers



Centrian (Cable Modem Termination System)

Centrian (CMTS) is the industry's first Cable Modem Termination System over leaky feeder cable, providing an integrated communication solution for voice and high speed data. Centrian has been engineered as the first communication solution that provides high speed internet services between surface and underground. The sophisticated Centrian solution allows for use of both VHF portable radios and Voice over IP handsets. Centrian allows for wireless "hot spots" to be strategically deployed anywhere the leaky feeder cable is installed.



Features

- 'Hot Spot' deployment capabilities
- Automatic Gain Control
- Automatic Slope Control
- Local Diagnostics
- Utilizes existing leaky feeder backbone
- System Configuration to act as LAN

Applications

- Voice over IP
- Video over IP
- Data Control
- Sensors Monitoring
- Extend LAN and WLAN
- Diagnostics



Personnel and Equipment Tracking

The PBE mine-wide **Tracking system** is capable of determining the location of personnel and equipment by detection of the RFID tags worn by mine personnel or placed on mobile equipment. Tracking information is displayed on our MineBoss™ software. Stationary and portable tag readers (wireless or wired) are available for transmitting data over either leaky feeder communications systems (VHF or UHF) or over existing infrastructure without the need to install a new backbone.

The wireless version of the Tracking system is MSHA approved for hazardous atmospheres when operating on bac up battery. 96+ hours battery backup is available.



Products

- Mine Wide Tagging System
- Model 911 Emergency Communicator
- Model 1925 Power Supply
- Model 1961 UHF Head End Modem
- Model 1967 Tag Locator
- Model 1980 Tracking Tag
- Model 1981G Wireless Gateway
- Model 1982HP High Powered Tag Reader
- Model 1990 Tracking Node
- Model 1995 Tracking Boss Programmer



MineBoss™ Monitoring and Control Software

The PBE **MineBoss™** Monitoring and Control Software is used for displaying the location of miners and equipment throughout any underground mine, tunneling operation or industrial facility. This information is gathered from the Tracking system and the interface can be provided by the Model 1961 Head End Unit. MineBoss™ provides the integration and visibility for site-wide activity and allows control from a centralized location. PBE provides mine-wide monitoring and control solutions for a more efficient and safe mine environment.

Screen examples:

MineBoss™ can monitor:

- Fans
- Weight scales
- Water level
- Pump control
- Mine office
- Power centres
- Fire extinguishers
- Battery charging stations
- Air flow



MineTracker software provides real-time and last known location reporting using imported mine maps. Collision avoidance can be included in vehicles. MineTracker has the ability to monitor speed, telemetry, oil pressure, temperature and more.

Gas and Atmospheric Monitoring

Our environmental gas monitors are capable of measuring ambient gas concentrations and include a variety of features that make them powerful and easy to use.

Gas monitoring options include:

- Carbon Monoxide
- Nitrogen Dioxide
- Nitric Oxide
- Methane
- Oxygen
- Hydrogen Sulfide
- Sulfur Dioxide
- Hydrogen and more.



Products

- Model 805C, 805C/SS Remote Alarm
- Model 830 Calibration Kit
- Model 831 Hydrogen Discriminating Calibration Kit
- Model 931 Blue Outstation
- Model 1722 Low Power CO Monitor/Prestart Sounder
- Model 1905 24 VDC Uninterruptable Power Supply
- Model 2103 MSHA Approved CO Monitor
- Model 2105 Modbus Single Gas Monitors
- Model 2112 Smart Remote - Methane Gas Unit
- Model 2200 Gas Monitoring
- Model 2203, 2204 Hydrogen Insensitive CO Monitor
- Model 3000 Gas Monitoring Series

Conveyor and Motion Monitors

Designed to increase safety and productivity, PBE's Conveyor and Motion monitors are used for conveyor belts, rotating devices (eg. ventilation fans) or any equipment, preventing, reporting, and suppressing fires.

Material Level Indicators are designed to detect material spillage and cut power to conveyor belts to prevent costly damage or accidents.

Products

- Model 300 Belt Spillage Switch
- Model 407 Mini Slip 12 VDC
- Model 450 Mini Motion Switch
- Model 452 4-20 mA Motion Switch
- Model 455 Dual Channel Slip/Sequence Control
- Model 470 Slip / Sequence Tester
- Model 1032, 1040, 1048 Complete Conveyor Monitoring and Control Unit
- Model 1010M Fire Suppression Solenoid Monitor
- Model 1100 Conveyor and Motion Monitors
- Model 1717, 1718 Section Pre-start Sounder/Strobe



Fire and Dust Suppression

PBE's Fire Suppression products detect and suppress fires at the conveyor belt, air compressors and battery change-out stations and then activates audible and visual alarms. Dust Suppression products provide an electronically controlled water spraying system designed to control the dust generated at the transfer points of conveyor belt systems.



Products

- Model 225 Water Sprinkler System
- Model 227A / 125 Belt Head Dry Chemical Fire Suppression System
- Model 229 Battery Charging Station Dry Chemical Fire Suppression System
- Model 234 / 237 Conveyor Transfer Point Suppression System
- Model 235 Water Deluge System
- Model 235J Deluge Valve
- Model 460 Digital Dust Suppression
- Model 942, 943 Continuous Belt Fire Monitor
- Amerex Vehicle Fire Suppression Systems
- Flow Boss 2" Fire Suppression System

Two Way Radios and Page Phones

PBE provide a wide range of radio options for site, surface and underground linking and mine radio communications, including Motorola, Tait, & Kenwood two-way radios.

Page Boss Paging Telephones provide clear and undistorted communication across the entire pager phone system with rugged enclosures and handle handset hanger and mounting brackets.



Products

- HT750 Motorola Portable (MSHA approved)
- XPR 4350 Numeric Display Mobile Radio
- XPR 4550 Display Mobile Radio
- XPR 6350 Non-Display Portable Radio
- XPR 6550, 6580 Display Portable Radio
- XPR 8400 Repeater
- XRC 9000 Trunking Controller
- and other two way radio as required.
- Accessories: microphones, holsters, headsets and chargers

Paging Telephones

- Page Boss Family
 - Models: 111, 114, 116, 117, 119, 139, 140, 152
- GEN II Page Boss: Models 110, 112, 113
- Model SB-12-A "I.S. Barrier"
- Model 128 Mini Page Boss
- Armored Strobe and Siren Strobe and Siren Alarm



Mine Wide Monitoring and Control

With multiple user defined alarm and warning levels MineBoss can monitor and control power status, vibration, speed, water levels, bearing temperatures, and more, linked directly from a centralized computer screen map.

Products

- MineBoss Monitoring & Control System
- Model 230 Tilt Switch
- Model 233 Air Flow Switch Alarm
- Model 236IA Intrinsically Safe Photo Switch
- Model 236 Photo Switch
- Model 248, 248S Monitor Alarm
- Model 495 Cable Monitor
- Model 630, 631 Low Cost Monitoring Device
- Model 850 Alarm Module
- Model 860 & 861 Remote Alarm System
- Model 915 Cable Length Monitor
- Model 944 Alarm Interface
- Model 948, 949 Alarm Module
- Model 950A Remote Alarm Series
- Model 990C, 991C, 992C, 990CD "J" Box
- Model 1080, 108081 LED Strobe
- Model 1600 Analog Scanner
- Model 1956CI, 1956USB Computer Interface
- Model 1957CI Networkable Scanner
- Model 1965 Wireless Trunk Line Access Point
- Model LP2000I Electronic Circuit Breaker Interface
- Model RM-2 Remote Switcher
- Dust Proof Computer Enclosures



Proximity Alert System

PBE's Proximity Alert System is designed to enhance workplace safety by reducing risk of collision through asset and personnel detection and warning.

Features

- 900 MHz bidirectional Tag (for vehicles, obstacles and personnel)
- 900 MHz Tag readers (installed in vehicles)
- Electromagnetic proximity sensors (used for close range detection)
- Radar (used for mid-range detection)
- GPS Tracking Modules for surface tracking
- Real time video surveillance



Compliance

For a full list of our approved products please visit our website: www.pbegrp.com.

For the latest information on any of our products please refer to our Technical Datasheets available on our website or contact your local distributor or a PBE sales representative.





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POWERING PRODUCTIVITY.*

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