

MINE-WIDE TAGGING SYSTEM



SYSTEM COMPONENTS

- TAG - Model 1980
- Tag Reader - Model 1981 / 1982 / 1983 / 1984 / 1985 / 1986
- Power Supplies - Model 1925
- Head-End Modem - Model 1960 / 1961

COMMUNICATIONS

- "Leaky Feeder" (VHF or UHF)
- Pyott-Boone Serial Communications (4800 Baud)
- Fiber Optics
- RS-232
- RS-485

ADDRESSING

- 0-127 Base Addresses
- 8 Sub-addresses per Base
- 1016 Readers per system

+ 96 HOUR BATTERY BACKUP

**ALARM PUSHBUTTON
(Advisory & Panic Conditions)**

West Virginia MHST Approved

MSHA Approval Pending
VHF & UHF Versions Only

**Technical Data Bulletin
T071012B**

Tracking Boss

DESCRIPTION

The Tracking Boss tagging system is a mine-wide tracking system capable of determining the location of personnel and equipment within the mine by detection of a TAG worn by the individuals or placed on the equipment. TAGS will be worn by mine personnel and each TAG will be assigned to an individual. The Tag Readers will be located at strategic points throughout the mine and will detect TAGS when they are within range. The detection of the TAG will then provide location information based on the installed location of the Tag Reader that has detected the TAG.

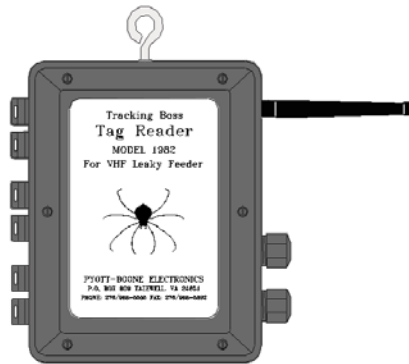


Model 1980 Tag

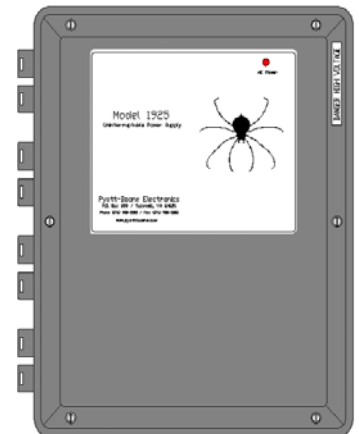
OPERATION

The Tracking Boss tagging system is simple and easy to install. There are two system configurations available; Wireless and Wired. Both configurations consist of three primary components: TAG, Tag Reader and Power Supply. The TAG is a portable transmitter worn by mine personnel or placed on equipment. The Tag Reader is a device used to receive the TAG transmission and transmit the pertinent details through various interfaces to the MineBoss™ MCS. The Power Supply provides 24VDC to the Tag Readers during normal operation.

The wireless configuration requires a Head End Modem to be mounted in the "Leaky Feeder" rack as an interface to the "Leaky Feeder" system. The Modem converts the Radio Frequency (RF) signal to a standard RS-232 format that can be interpreted by the MCS. The wired system requires a PBE communications interface that allows the Tag Readers to communicate directly to the Pyott-Boone MCS.



Model 1982 Tag Reader



Model 1925 Power Supply

Pyott-Boone Electronics

P.O. Box 809 / Tazewell, VA 24651

Phone: 276/988-5505 FAX: 276/988-5892

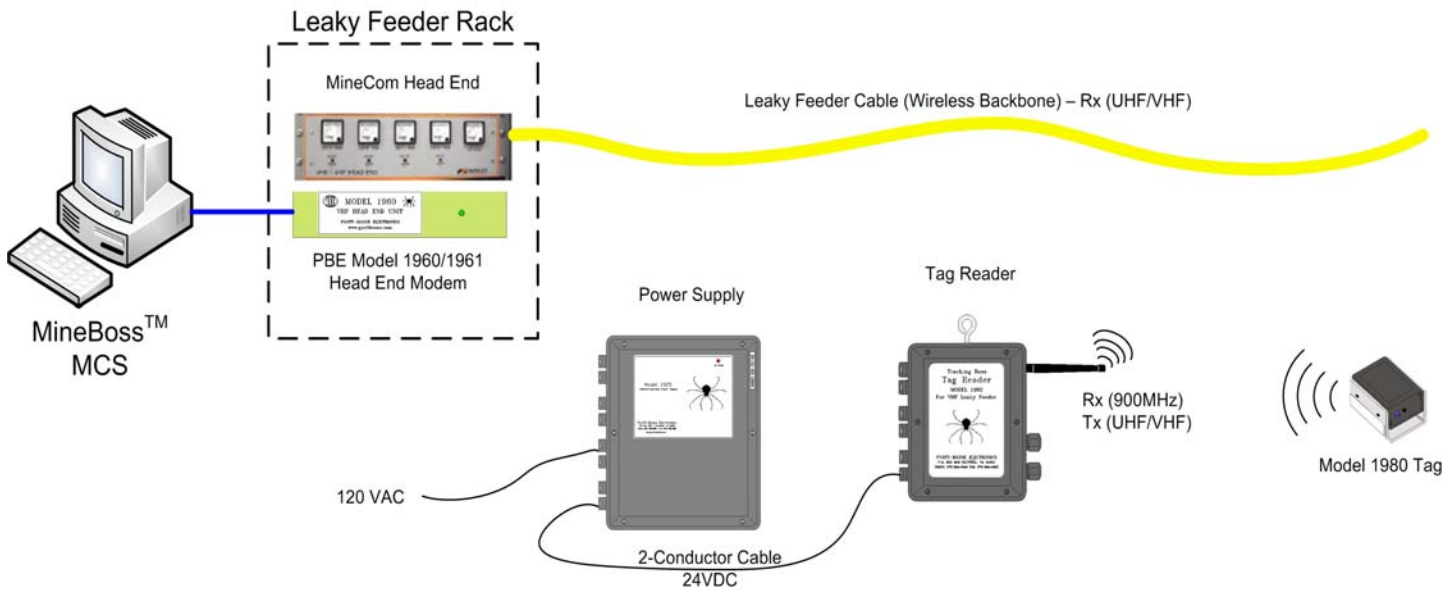
www.pyottboone.com pboone@pyottboone.com



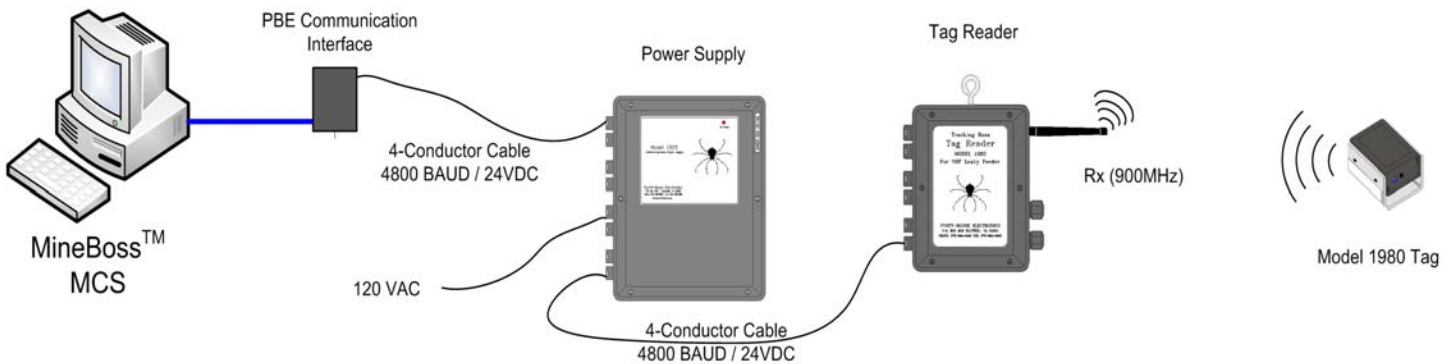
TRACKING BOSS



WIRELESS CONFIGURATION



WIRED CONFIGURATION



SPECIFICATIONS

TAG (Model 1980)

Mechanical Specifications:

Dimensions: 2-5/16" X 2-1/16" X 1-3/8"
 Potting Compound: EP965 Black -A
 Trans. LED Indicator: Blue, asynchronous beacon
 Pushbutton: Advisory & Panic Conditions

Electrical Specifications:

Transmitter Frequency: 924MHz
 Power: 3.6V High Energy Lithium Battery
 Output Power: 100mW max, 35-50mW average
 Tag I.D.: 10 bits (1024 Valid I.D.s)
 Data Integrity: 8 bit CRC

TAG READER (All Models)

Mechanical Specifications:

Dimensions: 10" X 8" X 5"
 Input Power: 9-24VDC
 Approx. 25mA@18VDC
 Approx. 35-40mA@12VDC
 Antenna: 900 MHz (All Models)
 155-174 MHz (VHF Models Only)
 450-490 MHz (UHF Models Only)

Electrical Specifications:

Tag Frequency: 924MHz
 Battery: 7Ah Lead Acid (+96 Hour Backup)
 Operating Voltage: 9-24VDC with Battery Backup
 Addressing: 0-127 Base Address
 (8 Sub-Addresses per Base)
 (Max. 1016 Readers per system)
 4800 Baud, RS-232, RS-485,
 UHF (MSHA Pending), VHF (MSHA Pending)
 & Fiber Optic