



GAI-TRONICS®
A Hubbell Company



Mine Communication Systems for Longwalls and Conveyors



Communications and Monitoring for Hazardous Areas



Austdac Conveyor and Longwall Communication System

MSHA Approved



Main Controller



Communication Station



Communication and Lockout Station with Telephone Keypad



Communication and Lockout Station



Amplifier Conveyor Station



Austdac Pullswitch



Lockout Unit



Termination Unit

- Fully monitored prestart audio/visual alarm.
- Long distance emergency stop system to 61508 safety standard SIL3.
- Accurate switch lockout indication.
- Full two way voice communication between the stations along the length of the conveyor/longwall.
- Sequence of any down line conveyor or machinery.
- Facility to move other analogue or digital signals along the same signal cable i.e. temperature monitoring, motor currents, on/o switch monitoring etc.
- Full PLC interfacing, giving powerful logic control of the conveyor.
- Direct link to the surface, for surface to underground communications.
- Compact Flash Voice Synthesizer up to 255 messages.
- All conveyor stations are stainless steel and IP66 rated.
- Conveyor stations comprise of LCD readout, volume control fault diagnostics, speaker monitoring.
- New IP66 rated pullswitch.
- Strong and high impact resistance material



CLOIS 3000 Longwall Communication System

MSHA Approved



CLOIS 3000



BMA



Cadlock



BMA with Pullswitch



Lockout



Tail End Unit



Pullswitch

- A user programmable signalling and control system utilizing 4 conductors for both signals and communications.
- Up to 25 intrinsically safe loudspeakers amplifiers.
- Non-handed self identifying keys.
- Up to 127 individually monitored and identified unit positions.
- Remote telemetry RS232/485 interface.
- CLOIS 3000 is a flexible signalling and control system for conveyors, haulages and other plant.
- The system console comprises an intrinsically safe enclosure which houses the microprocessor controlled signalling circuitry and a telemetry interface. A power supply and pilot relays are housed in a separate flap or XP enclosure.
- In addition to the console a system can include remote amplifiers (BMAs), and various types of lock-out and signal keys. A tail end unit terminates the system cable.
- The system is extremely flexible and may be used as a control system in mines and tunnels for all types of haulages.
- The system provides tone signalling, emergency trip, loudspeaker communications and two monitored pre-start alarms. The standard system provides transducer monitoring facilities for up to 8 line-proved digital inputs. In addition to the pilot outputs, the console has facilities for up to 4 intrinsically safe relay outputs and 1 analogue output for unit position indication.
- System status is broadcast with voice synthesized messages whenever a status change takes place.



GAI-Tronics® and Austdac Mining Products

MSHA Approved

Telephones



Loudspeaking Telephone

The **Loudspeaking Telephone (LST)** is a completely self-contained battery-powered communication unit that provides loud-speaker paging and handset party line conversation over a twisted telephone line.

- Simple installation
- Simple operation
- Ease of Service
- Portable
- Battery operation
- Rugged Construction
- Environment Protected Stainless Steel Case



Mine Dial Page Telephone

- Selective and All-Call Paging
- Private Conversations
- Can place and receive outside calls
- Can make simultaneous, independent conversations on each phone
- Emergency page function automatically enabled if switchboard or power failure
- Flashing light ringer for noisy areas
- 8 hour battery backup

Ground Sentinel



Designed to monitor the integrity of the ground circuit of power distribution circuits in coal mines. Either the three-phase wires or a pilot wire can be used as a return signal path for the Ground Sentinel. If the ground check circuit has 15ohms or less loop resistance, the internal relay will be energized and the circuit breaker that feeds power to the cable can be energized. A disruption of the ground check circuit that lasts longer than one-fourth of a second will de-energize the relay and trip the circuit breaker. The time delay prevents false trips. Three LED's indicate the condition of the ground check circuits. The three-frequency system is intended for applications on circuits where the ground ARC TRAPS or elimination of two ARC TRAPS is desired.

- Option of three different frequencies
- Eliminate monitor crosstalk
- Remove multiple groundings problems
- Extended cable lengths are possible
- Monitor and control over power cables

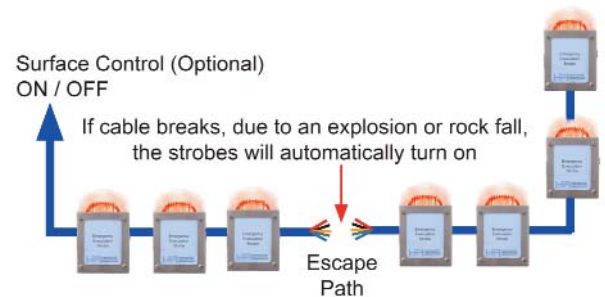
Emergency Evacuation High Intensity Strobe



High Intensity Strobe (available in: Red, Yellow, White or Green)

These evacuation lights are located along the escape routes (egress) and linked together via a 2 core cable. The cable is used to power an internal relay which disconnects the internal battery.

As soon as the power is turned off to the supply (via the surface), or the cable is damaged, due to an explosion or rock fall, the light will automatically activate and guide the men out of the pit.



Standalone Battery Operated Warning/Indications Strobes



Strobe available in: Red, Yellow or White

1 Year Continuous Flashing Operation From Internal Battery Pack!

Austdac has designed a new standalone battery operated flashing light with Manual On/Off Switch, or by a remotely activated relay. The unit has an in-built battery pack which lasts over 1 year continuous operation or up to 3 years with intermittent use. The battery pack has been designed to be replaced at the end of its life. This flashing light comes complete with a magnet located on the cone for ease of mounting or an optional handle for hanging in a roadway.

- Mobile Vehicles
- Remote operated light (voltage free)
- Men working
- Warning strobe

