



Underground Loudspeaking Intercom System



- **Intrinsically safe**
- **Rugged construction**
- **Weatherproof**
- **High reliability**
- **Mains failure operation**

The BMA (Battery Mini Amplifier) is a battery powered amplifier unit that provides voice communications and signalling facilities.

An internal Nickel Metal Hydride battery is trickle charged from a central power supply unit via an interconnecting cable.

It comprises a steel enclosure which houses two side facing loudspeakers, and a polycarbonate amplifier unit (BMA Interior).

The BMA Interior includes a microphone behind a grill on the front and three push buttons. The whole unit is sealed to IP65 to withstand arduous environments.

Cable entries (20mm) are provided at each side of the unit. Internal connections are by plugs and sockets for easy maintenance.

Stand-alone voice communication and signalling can be provided by a PSU and a number of BMAs interconnected by a 3-core cable.

The following facilities are provided:

Broadcast Audio

Signals on the Audio wire that exceed a pre-set threshold are broadcast via the loudspeakers.

Speak (PTT)

Pressing the Speak button disables the loudspeakers and enables the microphone. Speech will be broadcast by any other BMA on the string, and passed to the surface if a connection is available.

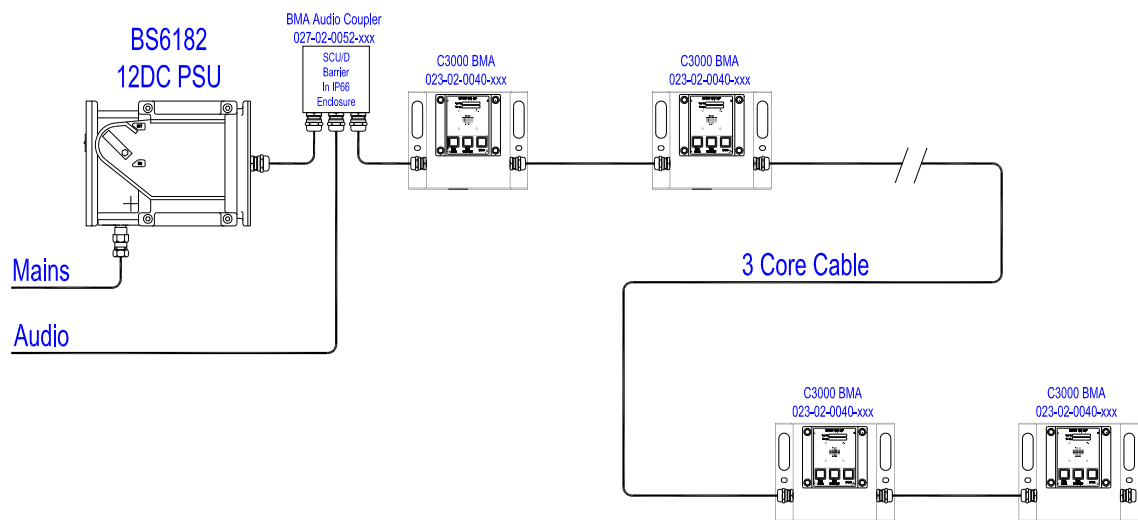
Call Local

The Call Local button causes the BMA to generate a 2kHz tone for the time that the button is pressed. The tone will be broadcast by all the BMA on the string.

Call Exchange

Pressing the Call Exchange button causes the BMA to generate a 194Hz signal for 5 seconds. The tone will be broadcast by all the other BMAs on the string, and passed to the surface if a connection is available, and may be used to establish a surface call.

System Diagram



Typical stand alone communication system

Approvals:

Complies with EN50 014/020
Interior BaseefaATEX0011U
Battery BaseefaATEX0302U

