

# **RUST ELECTRONICS LTD**

Lone Worker Remote Panic System



## LONE WORKER REMOTE PANIC SYSTEM

The Loneworker system is designed for a reliable method for a person to summon assistance when working in a remote location. Simply pressing the red button on the belt transmitter will activate a receiver at a distance of up to 1000m.

When the attack button is activated a panic transmission will latch and continue to transmit for 6 seconds ensuring the receiver should respond to the signal.

When the unit has been activated the LED will illuminate as confirmation. If the battery requires replacing the LED will blink.

When a signal received is valid, the Receiver module will provide a momentary output that can be used to trigger appropriate signalling equipment.

The type of output can be customised to suit the requirements of the system to which it requires to be connected.

The Receiver module is provided with a BNC connector to which the receiving aerial must be connected. The type and position of aerial will significantly affect the operational range of the system.

The Loneworker system is currently being supplied to numerous International Police forces, Prison services, Governmental departments, Motoring Organisations, Hospitals and Independent Security companies.

There are numerous options for the type of telemetry that can be used.

Narrowband FM systems using external aerials on both transmitter and receiver will provide optimum range and reliability.

Wider band FM systems can also be used where a shorter is required and will provide a lower cost alternative.

The units can also be used a multitude of reliable long distance switching applications.



## RANGE EXPECTATIONS

Expected performance with transmitter held in hand away from the body.

### Narrow Band FM

433Mhz 10 mW Internal aerial on transmitter, Internal aerial receiver 200m (line of sight).  
433Mhz 10 mW Internal aerial on transmitter, External aerial receiver 300m (line of sight).  
433Mhz 10 mW External aerial on transmitter (not practical)  
869Mhz 5 mW Internal aerial on transmitter, Internal aerial receiver 180m (line of sight).  
869Mhz 5 mW Internal aerial on transmitter, External aerial receiver 280m (line of sight).  
869Mhz 5 mW External aerial on transmitter, Internal aerial receiver 350m (line of sight).  
869Mhz 5 mW External aerial on transmitter, External aerial receiver 1000m (line of sight).

### FM (Lower cost)

433Mhz 10 mW Internal aerial on transmitter, Internal aerial receiver 130m (line of sight).  
433Mhz 10 mW Internal aerial on transmitter, External aerial receiver 180m (line of sight).  
433Mhz 10 mW External aerial on transmitter (not practical)  
869Mhz 5 mW Internal aerial on transmitter, Internal aerial receiver 100m (line of sight).  
869Mhz 5 mW Internal aerial on transmitter, External aerial receiver 150m (line of sight).  
869Mhz 5 mW External aerial on transmitter, Internal aerial receiver 200m (line of sight).  
869Mhz 5 mW External aerial on transmitter, External aerial receiver 250m (line of sight).

## BELT TRANSMITTER

**Dimensions in mm** W 45, D 20, H 95 (155 with aerial)  
**IP Rating** 42  
**Battery** GP 23 A

## RECEIVER MODULE

**Dimensions in mm** W 75, D 30, H 130  
**Quiescent Current** 30mA  
**Outputs** 12v and Logic level (Dependent on customer requirements).