

## Installation Notes

Place magnetic mount antenna preferably on the vehicle roof top (vertically position) or on an open area free from obstruction.

If using the internal mounted antenna on the MX900-H inside the vehicle, mount vertically on or as close as possible to window free from obstruction.

Power Connections to the MX900-H Transceiver must be made to an un-switched battery positive (+) and negative (-) source.

Acceptable power points are direct battery/ un-switched position at vehicle fuse panel (+)/(-) connections. Chassis ground connections are acceptable. The MX900 must remain power on after the vehicle is shut off.

The MX900-H is designed with an internal fuse with fault protection and auto reset when the fault is removed.

**DO NOT ATTEMPT TO USE THE 12 VOLT DC CONNECTION OF THE TELEMATICS PROVIDERS MODEM WITHOUT CONSULTING THE TELEMATICS PROVIDER.**

**CONTACTS ON THE RELAY OUTPUT ARE CAPABLE OF NO MORE THAN 1 AMP AT 30 VDC**

Care must be taken to observe professional vehicle installation practices.

Power terminations (+)/(-) must be made using properly sized nylon insulated terminal greased splices or properly soldered and taped insulation.

For sensitive environments where heat tools (solder) are restricted. The grease acts as a barrier to water that could short your connection. A double crimp on each wire holds the grease in place.

The nylon insulation provides relief from vibration that can cause the wire to fail prematurely. The nylon insulation also prevents incidental metal to metal contact that can cause shorts.

Requires two crimps (terminal to wire strands, terminal to insulation of wire). Standard tools perform both crimps. For heavier usage, use a tool that performs both crimps at the same time.

Example of acceptable terminal connectors:

<http://crimpsupply.com/16-14-ga-grease-filled-nylon-insulated-butt-splice-terminals.html?gclid=COie6LSawcQCFW0Q7AodtmEANw>

<http://crimpsupply.com/22-18-ga-grease-filled-nylon-insulated-butt-splice-terminals.html?gclid=CIDDwsCbwcQCFdgGgQodbLUAh>

### 12 VDC Vehicle Connections

(+) connect direct to battery or un-switched source at vehicle fuse panel. The MX900 must remain powered on after the vehicle is shut off.

(-) connect direct to battery or vehicle chassis ground

# Grace Mobile Lone Worker - INTEGRATOR NOTES

## MX900-H INTERFACE METHODS

1. **RELAY OUTPUT** – FORM-C, CONTACT CLOSURE FROM MX900H TO HOST MODEM ACTIVATES UPON RECEIVING PANIC ALARM or MOTION ALARM

MX900H



AVL MODEM AUX IN

MESSAGES transmitted from SC500-H - RECEIVED by MX900H

- MOTION ALARM
- PANIC ALARM

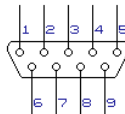
RELAY OUTPUT FROM MX900H TO THE HOST MODEM- Provides **GPS FROM VEHICLE GPS ONLY**

**NOT CAPABLE OF RECEIVING GPS FROM SuperCELL® GracePoints® GPS**

Used with the SuperCELL® 500 GracePoints® GPS model- this model is capable of transmitting GPS coordinates and requires a telematics provider's special hardware integration.

2. **RS-232 SERIAL CONNECTION** - FROM MX900H TO THE SERIAL INPUT HOST MODEM

MX900H-RS232



AVL MODEM RS232

MESSAGES transmitted from SC500-H - RECEIVED by MX900H

- MOTION ALARM
- PANIC ALARM
- GPS COORDINATES OF WORKER
- LOW BATTERY CONDITION OF SC500H
- GPS SIGNAL STRENGTH
- EVAC RECEIVED/ACKNOWLEDGED
- ROLL CALL REC/ACKNOWLEDGEMENT
- PAR CALL REC/ACKNOWLEDGEMENT

RS232 OUTPUT FROM MX900H TO THE HOST MODEM- **CAPABLE OF GPS FROM GRACE DEVICE**

GRACE OPEN API- RS232 DATA PAYLOAD –TRANSMITS ON CHANGE OF STATE OR REQUEST IN ORDER TO CONSERVE AIRTIME USAGE

RS232 OUTPUT FROM MX900H TO THE HOST MODEM- Provides man-down GPS **FROM SuperCELL® GracePoints® GPS**



# Grace Mobile Lone Worker

MX900-H Universal Interface Cable

