**Lodar®**
WIRELESS SOLUTIONS

## SYSTEM PART NUMBER
**92100** 2 Function Receiver & Transmitter

## REPLACEMENT TRANSMITTER
**92102TX** 2 Function

## SYSTEM CONTENTS

| | |
|---|---|
| 1x | Transmitter with batteries |
| 1x | locover |
| 1x | Lanyard |
| 1x | Receiver with wiring harness and glands |
| 1x | Instructions |

System shown: 92100

## STANDARD TRANSMITTER SPECIFICATION

**SWITCH**
Type                      Tactile Dome

**BATTERY**
Type                      9V Alkaline Manganese (GP 1604A – JIS 6LF22 – IEC 6LF22 – Eveready 522 – Duracell MN1604)

**CURRENT DRAW**
Quiescent                 15 micro amps
Operating                 20 milliamps

**PROTECTION**
IP Rating                 55
Registration codes        Over 16 million

**PERFORMANCE**
Temp Range                -10°C to + 40°C (13°F to + 104°F)
Range Nominal             60 metres (200 ft) from the Receiver, when driving a momentary output without signal drop out
Transmitted power         1 mW Typical

**COMPLIANCE**
EMC                       Exceeds ETSI 300 220. Compliant E11 10R-037601
Modulation                FM
Frequencies               418.00 MHz F1D     USA (optional UK)
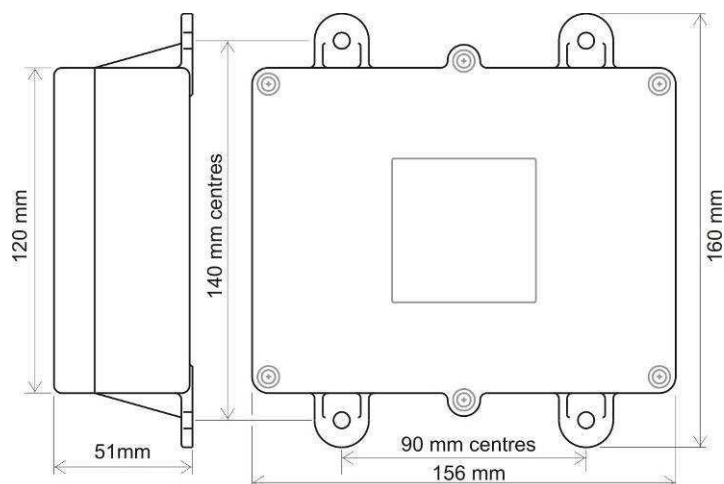                          433.92 MHz F1D     World wide (optional USA)

## RECEIVER SPECIFICATION

**SWITCH TYPE**
Output Switching           MOS Field Effect Transistor (P Channel Power MOSFET)

**SUPPLY VOLTS**
| | |
|---|---|
| Nominal | 12/24 Volts DC |
| Absolute Maximum | 40 Volts DC |
| Minimum | 8 Volts DC |
| Output Switch Supply | Internal 12/24 Volts |

**AMPS**
| | |
|---|---|
| FET Rating | 15 Amps |
| System Rating | 15 Amps |
| Quiescent Current | 25 mA on Standby (Not SET) |
| Overload Protection | 15 Amps  (Auto Shutdown) |

**AERIAL**
| | | |
|---|---|---|
| Internal Antenna | Yes | Supplied and fitted |
| External Antenna | Optional | See Accessories. |

**OUTPUTS**
| | | |
|---|---|---|
| Master | 1 | Can be Parallel or Continuous. Not all models – see Build Specification Table. |
| Function | 2 | |
| Master (Secondary) | 1 | Continuous. Not all models, see Build Specification Table. |

**CONFIGURATION**
| | | |
|---|---|---|
| RS232 Programming to users requirements | Yes | Not all models, see Build Specification Table. For programming interlocks, push/push latch, parallel master inhibit, timeout, channel timeout delay, master on delay, radio button de-latching and output allocation. |

**PERFORMANCE**
| | | |
|---|---|---|
| Simultaneous Outputs | Yes | With horizontal interlocks (Interlocks are programmable – see CONFIGURATION above) |
| Instant TX response | Yes | No perceivable delay between TX operation and RX action |

**DIAGNOSTICS**
| | | |
|---|---|---|
| LED's | Yes | Confirm 5 Volts, SET, Fault and all Outputs. |

**PROTECTION**
| | | |
|---|---|---|
| ESR Safety | Yes | See ESR Safety document. |
| Back EMF | Yes | Diode protected on all outputs |
| Registration codes | Yes | Over 16 million |
| STOP Connection | Yes | Internal Emergency Stop Connection. Not all models, see Build Specification  Table. |

**WIRING**
| | | |
|---|---|---|
| Wiring Loom | Yes | 3 metres (10ft) supplied and fitted |
| Cable Gland | Yes | Supplied and fitted |
| Connections | | Screw terminal into plug and socket on PCB, for easy "swap out" |

**ENCLOSURE**
| | |
|---|---|
| Weight | 0.3 lbs (335gms) |
| Lid | Clear PVC - to view LEDs |
| Base | Black PVC |
| Breather | Gortex fitted in base |
| Mounting | 4 external lugs |
| Fixings | 5mm (3/16") not supplied |
| IP Rating | Performs to IP67 standard (0.5 metre water for 1 hour) |

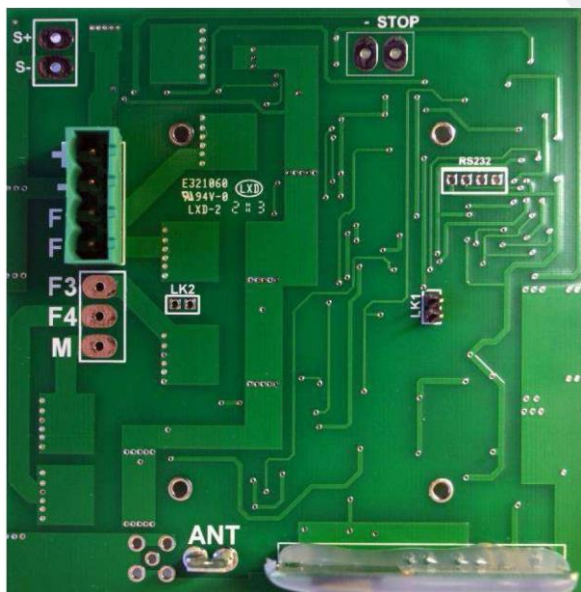**ACCESSORIES**        9861, 9862, 9863 and 9869 – External Antenna with cable.

| 92 Series<br>BUILD SPECIFICATION TABLE FOR MODELS IN THIS RANGE | | | 92 0 00 | 92 0 02 | 92 0 04 | 92 1 00 | 92 1 02 | 92 1 04 |
|---|---|---|---|---|---|---|---|---|
| Ident | Legend | Connection | | | | | | |
| | + - F1 F2 | Positive, Negative, F1 and F2 | S | S | S | S | S | S |
| | F3 F4 M | F3, F4, and Master | | M | S | | M | S |
| | ST - | STOP and - | | S | S | | S | S |
| | S+ S- | S+ S- | | S | S | | S | S |
| | ANT | Internal Antenna | S | S | S | S | S | S |
| | SMA | Connector (external antenna) | | S | S | | S | S |
| LK1 | P | Master - Parallel | | C | C | | C | C |
| LK2 | C | Master – Continuous | | C | C | | C | C |
| LK3 | RS232 | RS232 | | S | S | | S | S |
| | | 3 metres 4 core | S | | | S | | |
| | | 3 metres 7 core | | S | S | | S | S |
| | | 9801 Lo-Cover | | | | S | S | S |

S = Standard.  M = Standard but Master only connected.  C = Customer configured (see "Factory Settings").

| | |
|---|---|
| + | Positive    12/24 Volt supply |
| - | Negative  0 Volts |
| F1, F2, F3 & F4 | Outputs to F1 through F4 |
| M | Master Output |
| | |
| STOP - | STOP, when grounded shuts down the Receiver |
| S+ S- | Master Secondary for Safety solenoid connections etc. |
| ANT | Blade connector for internal antenna |
| SMA | Aerial connection for optional external antenna (internal antenna must be removed) |
| | |
| LK1 | Jumper fitted to this link for continuous Master |
| LK2 | Jumper fitted to this link for parallel Master |
| Factory Settings | 418MHz configured Parallel, 433.92MHz configured Continuous |
| LK3 | RS232 for interface to access special programmes |
| | Also for connection to RS232 modules |

Photo of PCB

Connector Side                                        Component Side