

## 2 Function with Standard Transmitter

### SYSTEM PART NUMBER

**92100** 2 Function Receiver + 2 Function Standard Transmitter.  
No Master



### CONTENTS

1 x Receiver  
1 x Standard Transmitter  
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### REPLACEMENT TRANSMITTER

**92102TX** - 2 Function Standard Transmitter

### REPLACEMENT RECEIVER

**9200RX** - 2 Function Receiver – No Master

### TRANSMITTER SPECIFICATION

#### ENCLOSURE

Material Glass reinforced Nylon  
Switch Type 12mm Dome Switch  
Functions 2  
Identification Pockets for printed text or image insertion

#### RF

Modulation 2-GFSK. Gaussian Frequency Shift Keying  
Frequency 433.050 MHz to 434.790 MHz  
Channels 1  
Channel Selection Fixed  
Technology Hand-held Transmitter  
Temperature Range  $-10^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$  ( $13^{\circ}\text{F}$  to  $+104^{\circ}\text{F}$ ). Use Lithium for lower temperatures  
Range 60m (200ft)  
Aerial Internal – printed on PCB  
Transmitted power 1mW Typical

#### POWER

Batteries 1x 9V Alkaline Manganese  
Quiescent Current  $15\mu\text{A}$   
Current Transmitting 20mA

#### PROTECTION

IP Rating 54  
Registration codes Over 16 million

#### INDICATOR

Type 1 x Red LED  
Off Transmitter is OFF and in standby mode  
Slow flash Transmitter is ON and ready for use (The SET Button has been pressed and released)  
On Transmitting (A STOP, SET or Function Button is being pressed)  
Fast flash Transmitting – Indication that the battery will need replacing soon

#### COMPLIANCE

FCC FCC CFR 47-part 15.231  
433.9MHz

IC ISED RSS-210 Issue 8  
433.9MHz

RoHS Directive 2011/65/EU

## RECEIVER SPECIFICATION

### ELECTRICAL

|                 |                             |
|-----------------|-----------------------------|
| Voltage Nominal | 12/24V DC                   |
| Voltage Min/Max | 8 to 36V DC                 |
| Switch Type     | MOSFET (Positive Switching) |

### RF

|                   |  |
|-------------------|--|
| Modulation        | 2-GFSK. Gaussian Frequency Shift Keying  |
| Frequency         | 433.050 MHz to 434.790 MHz<br>902.025 MHz– 927.975 MHz                                 |
| Channels          | 32   |
| Channel Selection | Fixed<br>Channel hopping   |
| Technology        | Fixed Receiver   |
| Temperature Range | -40 <sup>o</sup> C to + 70 <sup>o</sup> C (-40 <sup>o</sup> F to + 158 <sup>o</sup> F) |
| Range             | 60m (200ft)  |

### CURRENT CAPACITY

|                     |   |
|---------------------|---|
| FET Rating          | 10A                                     |
| System Rating       | 10A                                     |
| Quiescent Current   | 31mA 12V/ 17mA 24V on Standby (Not SET) |
| Overload Protection | 10A (Auto Shutdown)                     |

### AERIAL

|                  |          |  |
|------------------|----------|--|
| Internal Antenna | Yes      | Supplied and fitted  |
| External Antenna | Optional | AC9860/ AC9861/ AC9862/ AC9863 & AC9869 – order separately |

### OUTPUTS

|          |    |                                |
|----------|----|--------------------------------|
| Master   | No |                                |
| Function | 2  | Supply to Receiver is switched |

### CONFIGURATION

|  |     |  |
|--|-----|--|
| RS232 Programming to users' requirements | Yes | 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 | Programmable (Modify through configuration) |
| Instant TX response  | Yes | Programmable (Modify through configuration) |

### DIAGNOSTICS

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

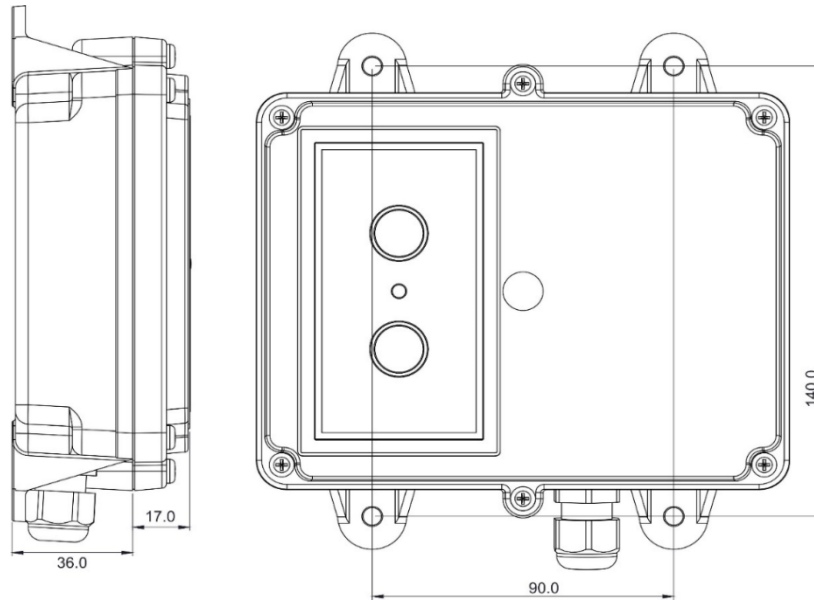
### PROTECTION

|                    |     |                                    |
|--------------------|-----|------------------------------------|
| Back EMF           | Yes | Diode protection on all outputs    |
| Registration codes | Yes | Over 16 million                    |
| STOP Connection    | Yes | Internal Emergency Stop Connection |

### 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 PC/FR V0 and UV stabilised  
 Base Black PC V0 and UV stabilised  
 Breather Gortex fitted in base  
 Mounting 4 external lugs  
 Fixings 5mm (3/16") not supplied  
 IP Rating IP55

| <b>92 Series</b>                                   |           |                               | <b>92000</b> | <b>92002</b> | <b>92004</b> | <b>92100</b> | <b>92102</b> | <b>92104</b> |
|--|-----------|-------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| BUILD SPECIFICATION TABLE FOR MODELS IN THIS RANGE |           |                               |              |              |              |              |              |              |
| Ident  | Legend    | Connection                    |              |              |              |              |              |              |
|  | + - F1 F2 | Positive, Negative, F1 and F2 | S            | S            | S            | <b>S</b>     | 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            | <b>S</b>     | 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            |              |              | <b>S</b>     |              |              |
|  |           | 3 metres 7 core               |              | S            | S            |              | S            | S            |
|  |           | 9801 Lo-Cover                 |              |              |              | <b>S</b>     | S            | S            |

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

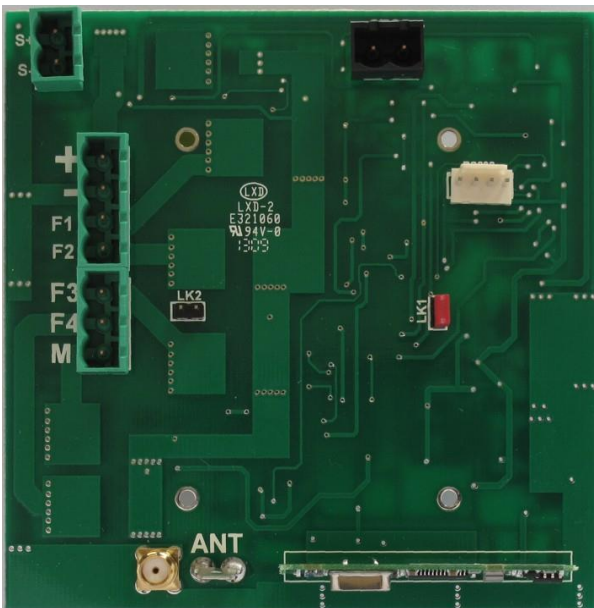
+ Positive 8-36V supply  
 - Negative 0 Volts  
 F1 to F4 Outputs to F1 through F4  
 M Master Output  
 STOP - STOP, when grounded shuts down the Receiver  
 S+ S- Master Secondary for Safety solenoid connections etc.  
 ANT Blade connector for internal antenna  
 SMA Aerial connection for optional external antenna (internal antenna must be removed)  
 LK1 Master Selection by Jumper (Parallel)  
 LK2 Master Selection by Jumper (Continuous)  
 Factory Settings 418/915MHz configured Parallel, 433.92MHz configured Continuous  
 RS232 RS232 for Wired Remote and interface to access special programmes

## COMPLIANCE

|              |   |
|--------------|---|
| REG 10       | EC Type-approval mark E11 037601<br>EC Type-approval No: e11/72/245*2009/19*7601*00   |
| FCC          | FCC CFR 47 Part 15.109<br>433.050MHz to 434.790MHz<br>FCC CFR 47 Part 15.109<br>902.025MHz to 927.975MHz  |
| IC           | ICES-003 Issue 6.<br>433.050MHz to 434.790MHz<br>ICES-003 Issue 6.<br>902.025MHz to 927.975MHz  |
| CE           | RED Directive<br>ETSI EN 300 220-2 v3.2.<br>ETSI EN 300 220-1 v3.1.1.<br>ETSI EN 301 489-17 V3.1.1,<br>ETSI EN 301 489-1 V2.1.1<br>433.050MHz to 434.790MHz |
| Australia/NZ | ETSI EN 300 220-2 v3.2.1<br>ETSI EN 301 489-1 V2.1.1<br>433.050MHz to 434.790MHz<br>915.025MHz to 927.975MHz  |
| RoHS         | Directive 2011/65/EU  |

## Photo of PCB

Connector Side



Component Side

