

# Lodar 9104 Instructions and Wiring Diagram 12/36 volt External

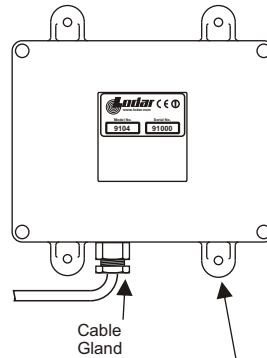
## 1 MOUNT RECEIVER

### CAUTION

TAKE TIME TO LOCATE THE BEST POSITION

If necessary power the Receiver and move it around the vehicle until the required performance is achieved. Operate the Transmitter and observe the Receiver internal LED's.

Mount as **HIGH** as possible  
**AVOID** surfaces with **HEAVY VIBRATION**  
**AVOID DIRECT SPRAY** from wheels  
 In a **HOT CLIMATE** fit in a **SHADED** position  
 Cable gland should face **DOWN** or **BACK**

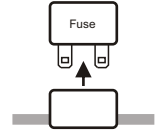


Secure using 5mm (3/16") bolts(not supplied) through the 4 mounting feet

Receiver Part Number 9104 - Waterproof to IP67 complete with 3 metres (10 feet) 7 core cable

## 2 IDENTIFY POWER CONNECTION POINT AND ISOLATE SUPPLY

Remove fuse



or Disconnect Battery



## 3 CONNECT WIRES

**REMEMBER**  
 Press the Transmitter **RESET** button to activate the system

**SAFETY FEATURE**  
 The Receiver switches itself off after 30 minutes of inactivity.

### IMPORTANT



Lodar 9100 Series Receivers **MUST** have an isolation switch, to allow for registering a replacement Transmitter.

12/24 VOLTS POSITIVE

NEGATIVE

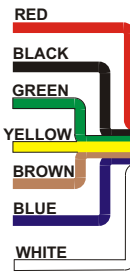
FUNCTION 1

FUNCTION 2

FUNCTION 3

FUNCTION 4

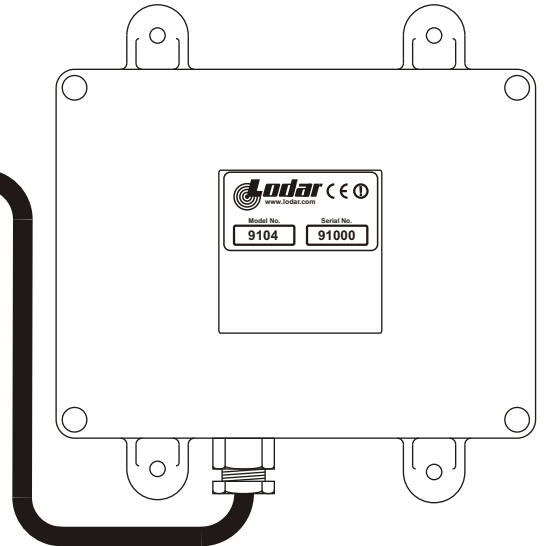
MASTER OUTPUT



**REMEMBER** Master Output  
 This can be configured to Continuous or Parallel operation, see overleaf for details.

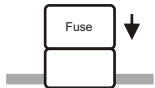
**CAUTION**  
 If Receiver outputs are connected in parallel with an external switching device **DO NOT** operate the Transmitter and the external switches at the same time

**CAUTION**  
 Outputs of all functions are rated at 5 Amps maximum each. The system is rated to a 15 Amps total output.

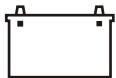


## 4 ACTIVATE SUPPLY

Replace fuse



or Reconnect Battery



**YOUR LODAR SHOULD NOW BE WORKING**

### CONTACT INFORMATION

Lodar  
 60 Sandwell Street  
 Walsall WS1 3EB  
 England  
 Tel: +44 (0)1922 613633  
 Fax: +44 (0)1922 626991  
 email: sales@lodar.com  
 www.lodar.com

Transmitter Part Number 9104TX - Effective working range up to a distance of 60 metres (200 feet).

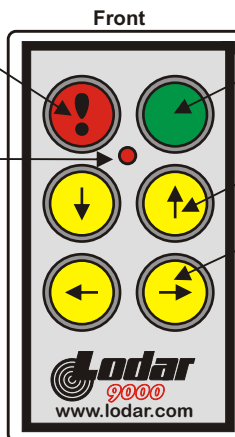
**STOP** Button switches off the Receiver and the keypad function buttons

**L.E.D. Blinks** when Transmitter and Receiver are active.

**L.E.D. ON** when a Transmitter Button is pressed.

### SAFETY FEATURE

The Transmitter automatically transmits a **STOP** signal after 30 minutes; this de-activates the Receiver and the Transmitter keypad.



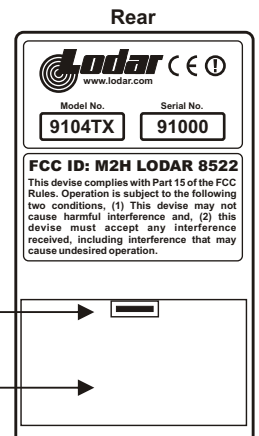
**RESET** Button activates the Receiver and the keypad function buttons

Function 2 Button

Function 4 Button

Release Catch

Battery Compartment



**BRAKING THE TRANSMITTER SECURITY SEALS WILL AUTOMATICALLY VOID WARRANTY**

Lodar 9100 Series is guaranteed for a period of 24 months from the date of purchase, as long as it is wired in accordance with our instructions, and that the equipment is fitted with an isolation system to shut off all power in event of an emergency.

**To comply with Directive 95/54/EC the equipment should be inoperable when the vehicle is moving.**

### LED marked "SET"

Indicates system is active

### LED marked "FAULT"

Indicates an overload is present; the System cannot be **RESET** until overload is removed.

This **LED** blinks for 20 seconds when the Receiver is initially powered. A replacement Transmitter has been registered during this 20 second period.

### LED marked "5V"

Indicates power supply for control circuits is OK

### MASTER OUTPUT

Configuration of Master Output (not 9100) is by jumper pins.

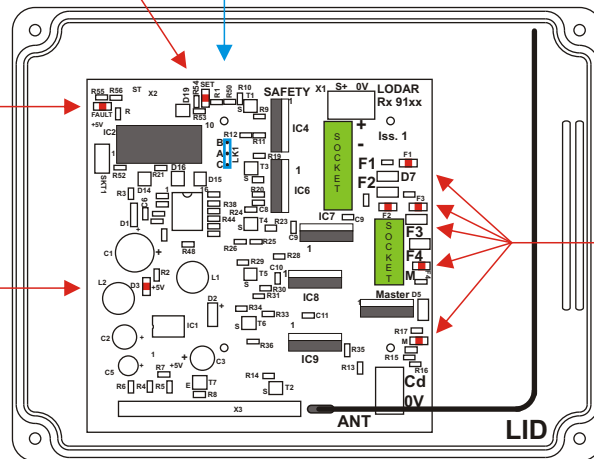
either **Continuous** activated by Transmitter **RESET** de-activated by Transmitter **STOP**  
**Connect jumper across A-B**

or **Parallel** Activated by any Transmitter **FUNCTION** but not **STOP** or **RESET**  
**Connect jumper across A-C**

### VOLTAGE

Working Range  
12 Volts to 36 Volts DC  
Absolute Limit  
8 Volts to 40 Volts DC

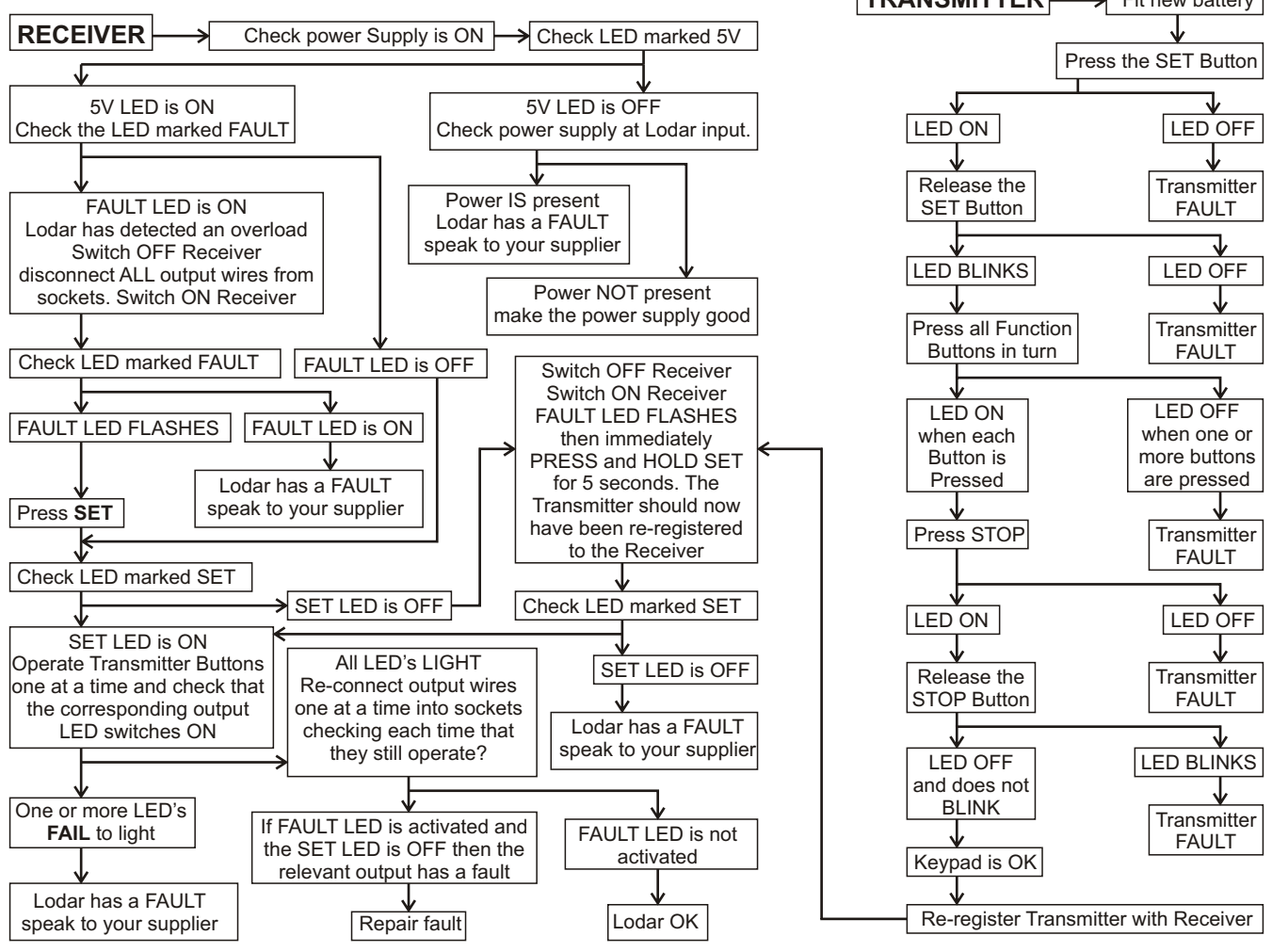
Note 42 Volt System  
48 Volt Max Limit is currently Special Order



### LED's marked "F1 - F2 - F3 - F4 and M"

When **ON** indicate an output to that function

## FAULT CHECK



## Skidmore 4WD Limited Warranty for LODAR Valid Worldwide

### Limited Warranty.

Skidmore 4wd Ltd ("Seller") warrants to the original buyer ("You") all parts and components to be free of faults in materials workmanship for a period of two (2) years from provable date of purchase. Any Lodar product that is faulty will be repaired or replaced without charge to you, upon compliance with these procedures. The Warranties set forth herein are exclusive and in lieu of all other Warranties, whether oral or written, express or implied.

### Limited Warranty Performance Procedure

Upon discovery of a faulty Lodar product, you shall notify the Seller in writing, at his factory or at any authorised distributor, details of the said fault and mail, or otherwise ship the faulty Lodar product, postage or other carriage prepaid. Repairs or replacements by the Seller under this Limited Warranty will normally be accomplished within fifteen (15) working days after the receipt of the faulty Lodar product. The Seller, or its authorised distributor, may make reasonable charges for repairs that are not covered by this Limited Warranty

### Warranty and Remedy Limitations and Exclusions

The following exclusions or limitations of Warranties and limitations of remedies shall be expressly applicable:

**Express Warranties.** Seller warrants that the Lodar is as described in the "Lodar Owners Manual" provided herewith: no other express Warranty is made in respect to the Lodar. If any model or sample was shown to you, such model or sample was used for illustrative purposes only, and shall not be construed as a Warranty that the Lodar will conform to the sample or model.

**Implied Warranties.** The implied Warranty of merchantability and all other implied Warranties shall only extend from the provable date of purchase for two(2) years. Some States within the USA do not allow limitations on how long an implied Warranty lasts, so the above limitation may not apply to you.

**Incidental and Consequential Damage.** Subject to the Sellers Limited Warranty obligations set forth herein, the Seller shall not be responsible for incidental damages of any kind, or for consequential damages to property, loss of profits and loss of use which may be caused by any fault in, or malfunction, or failure of the enclosed Lodar. Some States within the USA do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.

**Condition of Warranty.** The Seller shall not be required to comply with its Warranty duties provided herein if the fault, malfunction or failure of the Lodar was caused by damage (not resulting from faulty or malfunctioning components) or unreasonable use by you. Unreasonable use shall include, but not be limited to, the failure to provide reasonable and necessary maintenance or installation or use of the Lodar without compliance with the instructions contained in the Lodar Owners manual. Sellers liability under this Warranty or for any loss or damage to the Lodar product shall not exceed the cost of correcting the defects in or replacing the Lodar product, and upon expiration of the Warranty period, all such liability shall terminate. The agents, distributors and employees of the Seller are not authorised to make modifications to this Warranty, or additional Warranties binding on the Seller. Accordingly, additional statements, whether oral or written, do not constitute Warranties and should not be relied upon.

### Legal Remedies of the Buyer

This limited Warranty gives you specific legal rights, and you may also have other legal rights, which may vary from State to State within the USA and from country to country. You also have implied Warranty rights. In the event of a problem with Limited Warranty service or performance, you may be able to go to a small claims court, a state court or a federal district court in the USA or to appropriate jurisdictions outside the USA.

### Enquiries

Any enquiries regarding compliance with Warranties provided herein may be addressed in writing to: Skidmore 4WD Limited, 60 Sandwell Street, Walsall WS1 3EB, England.

We, Skidmore 4wd Ltd., 60 Sandwell St., Walsall. WS1 3EB England.

Declare under our sole responsibility that the product:

Product Details	Name	- Lodar
	Series	- 9100
	Type	- 9104TX

To which this declaration relates is in conformity with the essential requirements and other relevant requirements, and is compliant with the standards and/or other documents, of the following directives :

EN 301 489-3	
R&TTE	(1999/5/EC)
Safety	Low Voltage Directive 300.683
EMC	89/336/EEC ETSI 300-220 v1.1.1
95/54/EC	Not applicable (conditional that equipment cannot be used when the vehicle is in motion)
FCC	Approval Granted
Spectrum	433.92 MHz F1D (EUROPE (CE)) 418.0 MHz F1D (USA)

Please note that this certificate only covers Lodar and not the installation

Martin Skidmore	Position	Date
	CEO	January 2004

### F.C.C. PART 15 INTENTIONAL RADIATOR MANUAL STATEMENT RADIO FREQUENCY INTERFERENCE STATEMENT

Note, this equipment has been tested and found to comply with the limits for an intentional radiator, pursuant to Part 15, subpart C of the F.C.C. Rules. This equipment generates uses and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause interference to radio communications.

The limits are designed to provide reasonable protection against such interference in a residential situation. However there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna of the affected radio or television
- Increase the separation between the equipment and the affected receiver.
- Connect the equipment and the affected receiver to power outlets on separate circuits.
- Consult the dealer or experienced radio/TV technician for help.

### MODIFICATIONS

Changes or modifications not expressly approved by Skidmore 4wd Ltd. could void the users authority to operate the equipment