



www.lodar.com

Catalogue Vol. 14

Welcome to Lodar®

Probably the best Radio Control System at an affordable price.

Twenty-five years ago Electric winches were operated by hard wired controls. All Hydraulic winches were controlled by levers. Television was now being operated remotely, so why not winches? "Infra red" was not suitable but "radio" proved to be a successful option. **A market was born.**

Europe immediately embraced this technology and soon most commercial vehicles were fitted with electro-hydraulic valves, to accommodate this remote radio switching option. America stayed with hydraulic simplicity. However, the persistence of a few radio control manufacturers slowly convinced the market to embrace this concept. US builders now regularly provide radio control as an option and, in many cases, as standard equipment. Today, the radio control industry is sophisticated and diverse, providing remote switching systems for a wide variety of applications.

Lodar® is an industry leader, focused on safety with new product being constantly developed to maintain a competitive edge. Lodar® has a dedicated service team. We recognize that customers demand prompt attention when something is not right – Lodar® provides that total support.

Go with your imagination - allow Lodar® to take control.

1. SAFETY

Is your team working in a safe environment? Stay away from danger zones – have control at 60 or 300 metre distance, depending on the model. Lodar® is made to the highest safety standards, with the ability to perform in the harshest of environments.

2. COST EFFECTIVE

Long wiring runs are expensive and incur labour costs. Lodar® can eliminate these costs by wiring the Receiver close to the valve controls. Lodar® pays for itself by decreasing manpower – two or three man jobs can be completed by one operator.

3. FAST AND KNOWLEDGEABLE SERVICE

Lodar's® dedicated Distributors will assist customers with installation, troubleshooting and warranty issues, and they will, if possible, resolve any issues over the phone. If necessary, they will ship a replacement system within 24 hours, allowing you to return the faulty system within 7 days.

4. WARRANTY

Our 5-year pro-rated warranty is exceptional.

For the first 2 years, the warranty is unlimited. Your Distributor will repair or replace free of charge, at our discretion, any product that is proved to be faulty due to poor manufacturing.

For the following 3 years, the warranty is pro-rated. We will replace faulty product with new product at an attractive discounted price.

5. CORPORATE LONGEVITY

Lodar®, the brand name, was created in the UK in 1988 by Skidmore 4WD Ltd. Martin Skidmore, a three-time National Land Rover Champion and Tim Halford, the main Superwinch distributor, found a need in the market for radio switching systems.

Over the years these two friends have built a global brand with an impressive list of Distributors, supplying a wide variety of industries. These Distributors are able to help customers find the best system for their individual needs

In 2013 Skidmore 4WD Ltd changed its name to Lodar® Ltd., to better reflect the direction of the company. In the US, after 20 years of trading as Lodar®, the name was changed to Lodar® USA.

6. ALLOW LODAR® TO TAKE CONTROL

Lodar® allows you to control, move, ramp up, start, switch, activate, deactivate or operate multiple functions at any given time.

Visit www.lodar.com and call your local Distributor for more information. Allow them to explain how Lodar® can improve your company's performance. **Lodar® Ltd is a registered ISO9001 and ISO14001 company.**



TRANSMITTERS



Mini
Functions: 2 / 4



Standard
Functions: 1 / 2 / 4 / 6



IP
Functions: 2 / 4 / 6 / 10 / 16 / 20



Stainless
Functions: 2 / 4 / 6

Shift
Functions: 40

RECEIVERS DC



Mini FETS
Functions: 2



Standard Relays
Functions: 2 / 4*



Standard FETS
Functions: 1 / 2* / 4 / 6



Deep FETS
Functions: 10 / 16 / 20*



NEW **Standard FETS Keypad**
Functions: 2* / 4* / 6*

RECEIVER AC



Standard Relays
Functions: 2* / 4*



* As Illustrated.

The Locator, shown holding the Transmitter, is an optional accessory. See page 11 for more information.

TRANSMITTERS

Choosing the right Transmitter is the first step to finding your Lodar® system. With up to 20 functions available (40 functions with Shift), Lodar® can satisfy operators across a broad range of industries.

FEATURES COMMON TO ALL TRANSMITTERS

- RED BUTTON – turns Receiver **off**
- GREEN BUTTON – turns Receiver **on**
- LOW BATTERY – fast flashing LED
- EASY CODING – over 16 million codes for safety



Mini

- Suitable for light industrial applications.
- IP 67 waterproof rating.
- Fits nicely in the palm of your hand.
- Facia Customisation Available.

SPECIFICATIONS

- SWITCH**
 - Rubber membrane with carbon contact
- BATTERY**
 - 2 x AAA alkaline manganese (3 Volts)
- CURRENT DRAW**
 - Quiescent: 4 micro amps
 - Operating: 20 milliamps
- PROTECTION**
 - Reverse Polarity: Protected
 - IP Rating: 67
 - Registration Codes: Over 16 million
- PERFORMANCE**
 - Temp. Range: -20°C to + 55°C (-4°F to + 131°F)
 - Range: 45 m (150 ft.) from the Receiver, when driving a momentary output, without signal drop out. 150 m (500 ft.) option available.
 - Transmitted Power: 1 mW Typical

COMPLIANCE
See page 7 for more information.



Standard

- Established in the Lodar® range for over 10 years.
- IP 55 water resistant rating.
- Large membrane buttons on a wipe clean surface.
- Enclosed with PVC LoCover, fits firmly in the hand.
- Function Button Customisation. – see page 6

SPECIFICATIONS

- SWITCH**
 - Tactile Dome
- BATTERY**
 - 1xPP9 alkaline manganese (9 Volts)
- CURRENT DRAW**
 - Quiescent: 4 micro amps
 - Operating: 20 milliamps
- PROTECTION**
 - Reverse Polarity: Protected
 - IP Rating: 55
 - Registration Codes: Over 16 million
- PERFORMANCE**
 - Temp. Range: -20°C to + 55°C (-4°F to + 131°F)
 - Range: 60 m (200 ft.) from the Receiver, when driving a momentary output, without signal drop out. 300 m (1,000 ft.) option available.
 - Transmitted Power: 1 mW Typical

COMPLIANCE
See page 7 for more information.



IP

- A robust Transmitter with IP67 waterproof rating.
- Large membrane buttons on a wipe clean surface.
- Function Button Customisation. – see page 6

SPECIFICATIONS

- SWITCH**
 - Tactile Dome
- BATTERY**
 - 4 x AAA alkaline manganese (6 Volts)
- CURRENT DRAW**
 - Quiescent: 15 micro amps
 - Operating: 24 milliamps
- PROTECTION**
 - Reverse Polarity: Protected
 - IP Rating: 67
 - Registration Codes: Over 16 million
- PERFORMANCE**
 - Temp. Range: -20°C to + 55°C (-4°F to + 131°F)
 - Range: 60 m (200 ft.) from the Receiver, when driving a momentary output, without signal drop out. 300 m (1,000 ft.) option available.
 - Transmitted Power: 1 mW Typical

COMPLIANCE
See page 7 for more information.



NEW! One Function Transmitter

Lodar® now offers a One Function wireless option. Turn the power ON/OFF to generators, water pumps, lights etc. The special One Function Receiver has two outputs, one momentary and one latching – take your pick.

See Standard Transmitter for full specification on page 4.



NEW! Stainless Transmitter

The Stainless Steel faceplate, with vandal proof security buttons, is designed to work in the harshest of environments. Ideal where the function buttons are in use 24/7.

This 6 function IP enclosure can either be used for 2 or 4 function operations or modified with “SHIFT” to give up to 12 functions. All with the relevant Receiver.

See IP Transmitter for full specification on page 4.



21-40 Function with SHIFT Option

The “SHIFT” option on this robust Transmitter allows a mode change by simply depressing the Green Restart Button. Different LED's on the Transmitter indicate the relevant mode, which will be matched with the required Receiver(s).

Fewer functions can also be operated this way when using smaller Transmitters with relevant Receivers. For example, if you feel a single 20 function Transmitter is too large then you can chose to have a 10 function Transmitter in mode format – 2 x10 functions.

See IP Transmitter for full specification on page 4.

The Locator is an optional accessory. See page 12 for more information.

RECEIVERS

MASTER OUTPUT - WHAT IS THAT?

Most models are fitted with a Master Output, giving an extra independent control from the Transmitter. Examples of use:

- An electro hydraulic power pack
- A clutch pump
- A dump valve

The Master Output is factory configured in a *continuous* mode, allowing the Receiver to be active all the time after pressing the Start button on the Transmitter. This Master Output can also be configured in a *parallel* mode, where it will turn on/off as the function buttons are operated (refer to Instructions). The Master Output can also be removed from operation on a function by function basis, if required. It is totally flexible in its application.

Mini RX 3 amp FET's

Compact Receiver for small spaces.



- **Functions:** 2
- **Material:** Black PVC Base & Clear Lid
- **IP Rating:** 67
- **Switching:** 3 amp FET's
- **Master:** Optional
- **Size:** 4.7 x 3.5 x 1.6 in.
- **Transmitters:** Mini / Standard
- **Range:**
 - 45 m (150 ft.) with Mini Transmitter
 - 150 m (500 ft.) option available
 - 60 m (200 ft.) with Standard Transmitter
 - 300 m (1,000 ft.) option available



Standard Receiver – 15 amp FET's

Clear Lid allows sight of LED's for fault finding.

- **Functions:** 2 / 4 / 6
- **Material:** Black PVC Base & Clear Lid
- **IP Rating:** 67
- **Switching:** 15 amp FET's
- **Master:** Optional
- **Size:** 5.9 x 4.7 x 2 in
- **Transmitters:** Mini/Standard/IP
- **Range:**
 - 45 m (150 ft.) with Mini Transmitter
 - 150 m (500 ft.) option available
 - 60 m (200 ft.) with Standard Transmitter
 - 300 m (1,000 ft.) option available

Deep Receiver – 15 amp FET's

Clear Lid allows sight of LED's for fault finding. 2 cm deeper base to allow for extra wiring. Same footprint as Standard Receiver.

- **Functions:** 10 / 16 / 20
- **Material:** Black PVC Base & Clear Lid
- **IP Rating:** 67
- **Switching:** 15 amp FET's
- **Master:** Optional
- **Size:** 5.9 x 4.7 x 2.75 in.
- **Transmitters:** Mini/Standard/IP
- **Range:**
 - 45 m (150 ft.) with Mini Transmitter
 - 150 m (500 ft.) option available
 - 60 m (200 ft.) with Standard Transmitter
 - 300 m (1,000 ft.) option available

NEW Keypad Receiver – 15 amp FET's

Clear Lid allows sight of LED's for fault finding. Back up keypad in the event of a lost Transmitter. Security Code option available.

- **Functions:** 2 / 4 / 6
- **Material:** Black PVC Base & Clear Lid
- **IP Rating:** 67
- **Switching:** 15 amp FET's
- **Master:** Optional
- **Size:** 5.9 x 4.7 x 2 in.
- **Transmitters:** Mini/Standard/IP
- **Range:**
 - 45 m (150 ft.) with Mini Transmitter
 - 150 m (500 ft.) option available
 - 60 m (200 ft.) with Standard Transmitter
 - 300 m (1,000 ft.) option available

Standard Receiver 5 amp Relays

Cost effective version of the 15 amp system.



- **Functions:** 2 / 4
- **Material:** Black PVC Base & Lid
- **IP Rating:** 67
- **Switching:** 5 amp Relays
- **Master:** Optional
- **Size:** 5.9 x 4.7 x 2 in
- **Transmitters:** Mini/Standard
- **Range:**
 - 45 m (150 ft.) with Mini Transmitter
 - 150 m (500 ft.) option available
 - 60 m (200 ft.) with Standard Transmitter
 - 300 m (1,000 ft.) option available

Lodar® meets the following safety standards.

Lodar® is built in the UK and complies with all relevant safety and operational standards.

- **EN 301 489-3** (1999/5/EC)
- **R&TTE** Low Voltage Directive 300.683
- **SAFETY** EN ISO 13849-1 2008 to Category 4 - replaces BS EN 954-1
- **EMC** BS EN 60204-1 2004/104/EEC ETSI 300-220 v1.1.1 Approval Mark e11 037601
- **FCC** Approval Granted 433.92 MHz F1D CE!
- **Spectrum** 418.00 MHz F1D CE!
- **Lodar® Ltd. is an ISO9001 and 14001 approved company.**

Warranty

Our 5-year pro-rated warranty is exceptional and rare.

For the first 2 years, warranty is unlimited. During that period our Service Department will repair or replace, free of charge and at their discretion, any product that is proved to be faulty due to poor manufacturing. The warranty period is taken from the date the goods leave our factory, although we will accept a later date if the Distributor can confirm date of purchase.

For the following 3 years, the warranty is pro-rated. During that period, they will replace faulty product with new product at an attractive discounted price. Each Distributor sets these prices.

Limited Warranty.

Lodar 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 authorized 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 authorized 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 authorized 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.

Inquiries

Any inquiries regarding compliance with Warranties provided herein may be addressed in writing to: *Lodar® Limited, 60 Sandwell Street, Walsall WS1 3EB, England.*

TRANSMITTER CUSTOMISING

Since Lodar® is used in many different applications, our Transmitters can be customised to fit your needs. The following customisations are possible:



MAGNETS
Lodar® Standard and IP Transmitters can be fitted with magnets to enable you to place the transmitter on a metal surface.

For OEMs buying in volume, we can private label the Transmitter with your brand. Tooling charges apply.

CONFIGURE LEGENDS
Choose the right legend to fit your applications. We have hundreds of options possible. Service is complementary.

Go to:
www.lodar.com/inserts.htm

WATCH THE VIDEO

Learn how to choose your legends by watching the video!

www.youtube.com/lodarsales

RECEIVER CUSTOMISING

All Lodar® is set up in the factory with momentary functions, horizontal interlocks and a 30 minute automatic timeout.

Lodar's® sophisticated software can be modified for a wide variety of applications providing endless possibilities.



SWITCHES
Add switches to the side of the Receiver to cut off power and control the system.

LATCHING
Where a function is being operated for an extended period it may be wise to consider a latching option – once pressed, the button will stay on until it is pressed again to turn it off. Latching is great for long winch lines or cycle times but you need to consider safety – you must be able to turn it off!

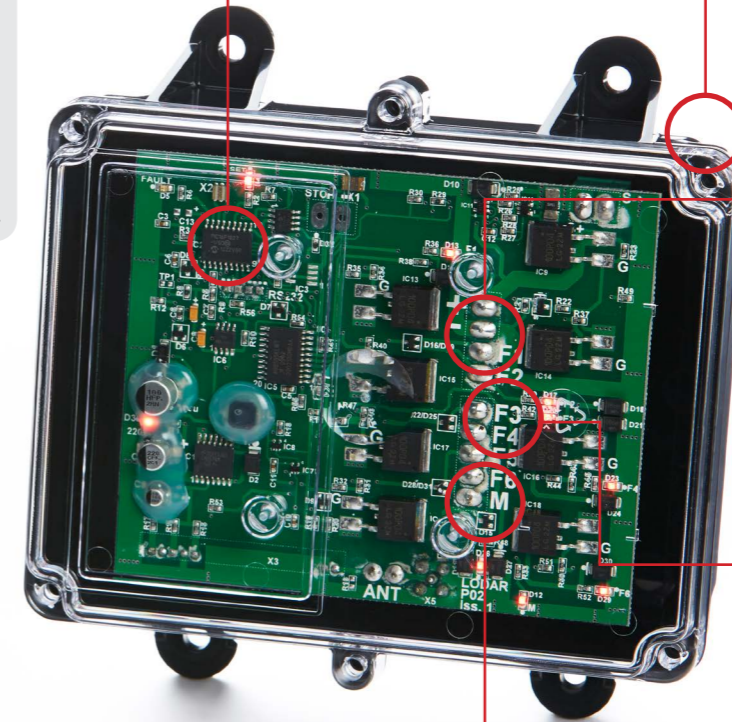
REMOVE INTERLOCKING
All Lodar® units are factory set with horizontal interlocking, that is to say you cannot activate an output on function two when function one is operational. A bad idea for a motor – it would not like to go both ways at the same time! A software change would allow either the removal of any interlocks, the establishment of vertical as opposed to horizontal interlocks or, in fact, any sequences that you might want.

TIMED LIMITS

Using software modifications, Receivers can be set to operate with a variety of timings. An example might be where a delay is required for a function to activate AFTER the Transmitter function button has been pressed.

REMOVE THE MASTER OUTPUT

You may wish to have the Master operational on certain functions and not on others – modified software can achieve this.



+ WIRING HARNESS

Lodar® 2 / 4 / 6 function systems come with a 10 foot wiring harness. We can make up any harness you wish, from your own wiring diagrams, to speed up installation in a production line. The use of SureSeal connections, shown above, can also provide a waterproof connection in the harness.

+ CONTROL MULTIPLE RECEIVER

Lodar® can be programmed to control multiple Receivers from the same Transmitter (e.g. to open a number of doors simultaneously). Alternatively, there may be a number of Receivers required in different locations - one Transmitter can be set up to operate each of them individually.

+ POTTING / RUGGEDISATION

Rough conditions? Potting protects the Receiver PCB board from extreme vibration. A silicone gel covers all the electronic components.

HOW DO I KNOW WHAT LODAR PART NUMBER TO ORDER?

There are dozens of Lodar® systems available and the part numbers can be overwhelming. By answering the following questions, you will help your distributor pinpoint the Lodar® that fits your needs.



1. RANGE

What distance do you want to work to?

- 60 m (200 ft.) 300 m (1,000 ft.)

2. FUNCTIONS

How many functions do you want?

For example, a winch will have 2 functions (IN/OUT)

- 2 6 10 14 18 20+
 4 8 12 16 20

3. TRANSMITTER

What Transmitter style do you like? *Check page 3-5 of the catalogue.*

- | | | |
|---------------------------------|------------------|-----------------|
| <input type="radio"/> Mini | 2 - 4 Functions | Waterproof |
| <input type="radio"/> Standard | 2 - 6 Functions | Water Resistant |
| <input type="radio"/> Stainless | 2 - 6 Functions | Waterproof |
| <input type="radio"/> IP | 2 - 20 Functions | Waterproof |
| <input type="radio"/> Shift | 20+ Functions | Waterproof |

4. AMPERAGE

What amperage are you switching? *Don't know - then the default is 15 amps.*

- 3 amps 5 amps 15 amps

5. ADDITIONAL QUESTIONS

Here are some additional questions:

| | | |
|-----|----|---|
| YES | NO | If you are ordering more than one system will they be working in close proximity to each other? |
| YES | NO | Are you mounting the Receiver in a confined space or in a tool locker, or something similar? |
| YES | NO | Are you going to need an additional function output, to maybe work a power pack? |
| YES | NO | Is there likely to be extreme vibration? |
| YES | NO | Will any of the functions need to be latching? |

AIR

Why do I need an Actuator System? Why can't I use a normal radio remote control system?

There are many trucks in the market where, historically, the only means of controlling the vehicle functions are by hydraulic valves with levers – and they continue to build these vehicles.

Working these functions by a radio remote control is becoming more and more popular. The obvious safety benefits, as well as the flexibility to manage the recovery with just a single operator, are together proving to be a necessity, not just an option.

With only hydraulic controls, however, there is nothing to switch; no electrical control at all. The only choice available, for those that want to convert to radio control, is to change to electro-hydraulic valves. This would provide an electrical switching option but at a cost that most operators would not consider.

The Air Actuator System by Lodar® will now allow your vehicle to be easily and inexpensively converted to the radio remote control option, by providing electrically operated air valves. These control the Air Actuator. The Actuator itself is fitted above the lever control rod, with one end attached to the rod itself and the other end to the chassis. The air supply is controlled through the air valves (see fitting drawing) which, in turn, are switched by the Lodar Radio Remote Transmitter/Receiver system.

Can you have more than one valve operated by this system?

Yes. We offer up to 16 functions (8 Actuators) for the ultimate vehicle control.

Discuss your requirements with your local Distributor.

What if I do not have an air supply on the vehicle?

The purchase of a small, inexpensive air compressor will resolve this problem.

It is always a good idea, anyway, to have an air supply available.

Can I operate the levers, even though there is an Actuator fitted?

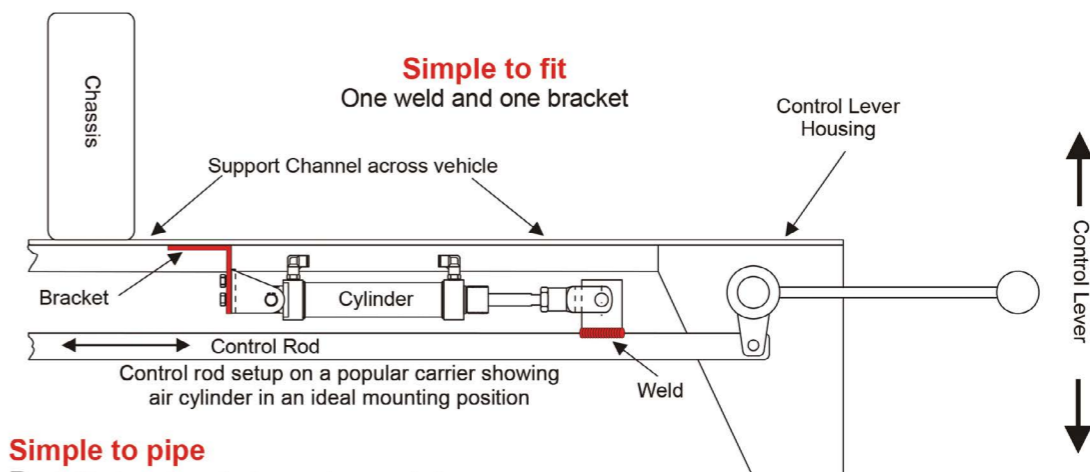
Yes, you can override the Actuator control at any time.

Can I fit this system to any vehicle?

As long as there is a control rod for the Actuator to be fitted to then this system is universal.



THE ACTUATOR



Simple to pipe

Push fit pipes to cylinder - colour coded
Connect blue pipe to the air supply

* For more detailed specification information about the actuators, go to www.lodar.com.

LOCATORS

Lodar® offers two styles of LoCator, housing the Transmitter when it's not in use. Choose between a basic LoCator or one with a buzzer and light, used to warn that the Transmitter is missing from its' holder. Alert settings are chosen on the back of the LoCator and can be customised.



- 9812 LoCator for Standard & IP Transmitters
- 9813 LoCator for Standard & IP Transmitters with Buzzer/LED

WATCH THE VIDEO

Learn about our LoCators by watching the video!
www.youtube.com/lodarsales

LOCOVERS

If the Transmitters are used in dusty or very dirty environments a LoCover might help prolong the life of the keypad. A lanyard is included.

Standard Transmitters are supplied with Part 9801.



- 9801 Silicone – supplied with all Standard Transmitters
- 9802 Clear Plastic IP67 - all Standard Transmitters
- 9804 Fabric/Clear Face - 2-6 Function Standard Transmitters
- 9805 Fabric/Clear Face - 2-6 Function IP Transmitters
- 9806 Fabric/Clear Face - 10 Function IP Transmitter
- 9807 Fabric/Clear Face - 16 Function IP Transmitter
- 9808 Fabric/Clear Face - 20 Function IP Transmitter



BACK UP SYSTEM

Lodar® has a range of hard wired remote controls that connect directly to the Receiver, ideal if the Transmitter is mislaid or damaged. These controls use the same enclosure as the IP Transmitters but have a high quality "curly" cable attached, stretching out from .45m to 4.5m. The cable will not lose its shape if used continuously.

- 9602 2 Function Wired Remote
- 9604 4 Function Wired Remote
- 9606 6 Function Wired Remote
- 9610 10 Function Wired Remote
- 9616 16 Function Wired Remote
- 9620 20 Function Wired Remote



EXTERNAL AERIALS

Lodar's® performance may be compromised if the Receiver is mounted in a position that causes the reception to be reduced, such as in a toolbox or deep in the chassis. Adding an external aerial maintains full operating range of 60/300 metres (200/1,000 ft.) in these adverse conditions. An external aerial is simply added to the SMA fitting on the PCB. An aerial will NOT increase the stated range.

Please note: you will need to request an SMA connector, if ordering a 2 function in the 90 or 91 series. It does not come as standard and will have to be soldered to the Receiver PCB.

- 9010 SMA Aerial Connector for 90 & 91 Series
- 9860 Aerial mast only
- 9861 Aerial with 1 m (3.3 ft.) of Cable & Aerial Mast
- 9862 Aerial with 1.6 m (5.3 ft.) of Cable & Aerial Mast
- 9863 Aerial with 3 m (10 ft.) of Cable & Aerial Mast
- 9869 Aerial with 9 m (30 ft.) of Cable & Aerial Mast



SOLENOIDS

Lodar® has a range of high quality solenoids, to carry loads that are well in excess of the 15 amp relays in the Receivers. Ask your local Distributor for more information.

- 9820 Solenoid 12 V, Motor Isolation (Continuously Rated)
- 9821 Solenoid 24 V, Motor Isolation (Continuously Rated)
- 9822 Solenoid 12 V, DC Motor Forward/Reverse Standard
- 9823 Solenoid 24 V, DC Motor Forward/Reverse Standard
- 9824 Solenoid 12 V, DC Motor Forward/Reverse Heavy Duty
- 9825 Solenoid 24 V, DC Motor Forward/Reverse Heavy Duty
- 9826 Relay 12 V Changeover
- 9827 Relay 24 V Changeover

TRANSMITTER AND RECEIVER SYSTEMS DC

Relays 5 amp

45 M (150 FT.) RANGE

- 90 0 00 2 Function Relay Receiver & Mini Transmitter
- 90 0 02 2 Function Relay Receiver + Master & Mini Transmitter
- 90 0 04 4 Function Relay Receiver + Master & Mini Transmitter

60 M (200 FT.) RANGE

- 90 1 00 2 Function Relay Receiver & Standard Transmitter
- 90 1 01 1 Function Relay Receiver & Standard Transmitter
- 90 1 02 2 Function Relay Receiver + Master & Standard Transmitter
- 90 1 04 4 Function Relay Receiver + Master & Standard Transmitter

150 M (500 FT.) RANGE

- 91 0 00 2 Function Relay Receiver & Mini Transmitter
- 91 0 02 2 Function Relay Receiver + Master & Mini Transmitter
- 91 0 04 4 Function Relay Receiver + Master & Mini Transmitter

300 M (1000 FT.) RANGE

- 91 1 00 2 Function Relay Receiver & Standard Transmitter
- 91 1 01 1 Function Relay Receiver & Standard Transmitter
- 91 1 02 2 Function Relay Receiver + Master & Standard Transmitter
- 91 1 04 4 Function Relay Receiver + Master & Standard Transmitter

FET's 3 amp

45 M (150 FT.) RANGE

- 11 0 00 2 Function FET Mini Receiver & Mini Transmitter
- 11 0 02 2 Function FET Mini Receiver + Master & Mini Transmitter

60 M (200 FT.) RANGE

- 11 1 00 2 Function FET Mini Receiver & Standard Transmitter
- 11 1 02 2 Function FET Mini Receiver + Master & Standard Transmitter

FET's 15 amp

45 M (150 FT.) RANGE

- 92 0 00 2 Function FET Receiver & Mini Transmitter
- 92 0 02 2 Function FET Receiver + Master & Mini Transmitter
- 92 0 04 4 Function FET Receiver + Master & Mini Transmitter
- 92 0 00K 2 Function FET Receiver + Keypad & Mini TX
- 92 0 02K 2 Function FET Receiver + Keypad, Master & Mini TX
- 92 0 04K 4 Function FET Receiver + Keypad, Master & Mini TX

60 M (200 FT.) RANGE

- 92 1 00 2 Function FET Receiver & Standard Transmitter
- 92 1 01 1 Function FET Receiver & Standard Transmitter
- 92 1 02 2 Function FET Receiver + Master & Standard Transmitter
- 92 1 04 4 Function FET Receiver + Master & Standard Transmitter
- 92 1 06 6 Function FET Receiver + Master & Standard Transmitter

- 92 1 00K 2 Function FET Receiver + Keypad & Standard Transmitter
- 92 1 02K 2 Function FET Receiver + Keypad, Master & Standard TX
- 92 1 04K 4 Function FET Receiver + Keypad, Master & Standard TX
- 92 1 06K 6 Function FET Receiver + Keypad, Master & Standard TX

- 92 2 02 2 Function FET Receiver + Master & IP Series Transmitter
- 92 2 04 4 Function FET Receiver + Master & IP Series Transmitter
- 92 2 06 6 Function FET Receiver + Master & IP Series Transmitter
- 92 2 10 10 Function FET Receiver + Master & IP Series Transmitter
- 92 2 16 16 Function FET Receiver + Master & IP Series Transmitter
- 92 2 20 20 Function FET Receiver + Master & IP Series Transmitter
- 92 2 02K 2 Function FET Receiver + Keypad, Master & IP Series TX
- 92 2 04K 4 Function FET Receiver + Keypad, Master & IP Series TX
- 92 2 06K 6 Function FET Receiver + Keypad, Master & IP Series TX

- 92 3 26 20F + 6F FET RX both + Master & 20F IP Shift Transmitter
- 92 3 30 20F + 10F FET RX both + Master & 20F IP Shift Transmitter
- 92 3 36 20F + 16F FET RX both + Master & 20F IP Shift Transmitter
- 92 3 40 20F + 20F FET RX both + Master & 20F IP Shift Transmitter

- 92 S 02 2 Function FET Receiver + Master & IP TX with Stainless KP
- 92 S 04 4 Function FET Receiver + Master & IP TX with Stainless KP
- 92 S 06 6 Function FET Receiver + Master & IP TX with Stainless KP

500 FT. RANGE

- 93 0 00 2 Function FET Receiver & Mini Transmitter
- 93 0 02 2 Function FET Receiver + Master & Mini Transmitter
- 93 0 04 4 Function FET Receiver + Master & Mini Transmitter

- 93 0 00K 2 Function FET Receiver + Keypad & Mini Transmitter
- 93 0 02K 2 Function FET Receiver + Keypad, Master & Mini TX
- 93 0 04K 4 Function FET Receiver + Keypad, Master & Mini TX

300 M (1000 FT.) RANGE

- 93 1 00 2 Function FET Receiver & Standard Transmitter
- 93 1 01 1 Function FET Receiver & Standard Transmitter
- 93 1 02 2 Function FET Receiver + Master & Standard Transmitter
- 93 1 04 4 Function FET Receiver + Master & Standard Transmitter
- 93 1 06 6 Function FET Receiver + Master & Standard Transmitter

- 93 1 00K 2 Function FET Receiver + Keypad & Standard Transmitter
- 93 1 02K 2 Function FET Receiver + Keypad, Master & Standard Transmitter
- 93 1 04K 4 Function FET Receiver + Keypad, Master & Standard Transmitter
- 93 1 06K 6 Function FET Receiver + Keypad, Master & Standard Transmitter

- 93 2 02 2 Function FET Receiver + Master & IP Series Transmitter
- 93 2 04 4 Function FET Receiver + Master & IP Series Transmitter
- 93 2 06 6 Function FET Receiver + Master & IP Series Transmitter
- 93 2 10 10 Function FET Receiver + Master & IP Series Transmitter
- 93 2 16 16 Function FET Receiver + Master & IP Series Transmitter
- 93 2 20 20 Function FET Receiver + Master & IP Series Transmitter

- 93 2 02K 2 Function FET Receiver + Keypad, Master & IP Series TX
- 93 2 04K 4 Function FET Receiver + Keypad, Master & IP Series TX
- 93 2 06K 6 Function FET Receiver + Keypad, Master & IP Series TX

- 93 3 26 20F + 6F FET RX both + Master & 20F IP Shift Transmitter
- 93 3 30 20F + 10F FET RX both + Master & 20F IP Shift Transmitter
- 93 3 36 20F + 16F FET RX both + Master & 20F IP Shift Transmitter
- 93 3 40 20F + 20F FET RX both + Master & 20F IP Shift Transmitter

TRANSMITTER AND RECEIVER SYSTEMS AC

Relays 5 amp

45/60 M (150/200 FT.) RANGE (Depends on choice of Transmitter)

- 96 1 00 2 Function AC Relay Receiver & Standard Transmitter
- 96 1 02 2 Function AC Relay Receiver + Master & Standard Transmitter
- 96 1 04 4 Function AC Relay Receiver + Master & Standard Transmitter

- 96 2 00 2 Function AC Relay Receiver & IP Transmitter
- 96 2 02 2 Function AC Relay Receiver + Master & IP Transmitter
- 96 2 04 4 Function AC Relay Receiver + Master & IP Transmitter

150 / 300 M (500/1000 FT.) RANGE (Depends on choice of Transmitter)

- 97 1 00 2 Function AC Relay Receiver & Standard Transmitter
- 97 1 02 2 Function AC Relay Receiver + Master & Standard Transmitter
- 97 1 04 4 Function AC Relay Receiver + Master & Standard Transmitter

- 97 2 00 2 Function AC Relay Receiver & IP Transmitter
- 97 2 02 2 Function AC Relay Receiver + Master & IP Transmitter
- 97 2 04 4 Function AC Relay Receiver + Master & IP Transmitter

TRANSMITTERS

45 M (150 FT.) RANGE

- 90 0 02TX 2 Function Mini Transmitter
- 90 0 04TX 4 Function Mini Transmitter

150 M (500 FT.) RANGE

- 91 0 02TX 2 Function Mini Transmitter
- 91 0 04TX 4 Function Mini Transmitter

60 M (200 FT.) RANGE

- 92 1 01TX 1 Function Standard Transmitter
- 92 1 02TX 2 Function Standard Transmitter
- 92 1 04TX 4 Function Standard Transmitter
- 92 1 06TX 6 Function Standard Transmitter

- 92 2 04TX 2 & 4 Function IP Transmitter (4 F Keypad only available)
- 92 2 06TX 6 Function IP Transmitter
- 92 2 10TX 10 Function IP Transmitter
- 92 2 16TX 16 Function IP Transmitter
- 92 2 20TX 20 Function IP Transmitter

- 92 3 20TX 20 Function IP Transmitter + Shift Function (10 Function TX)
- 92 3 32TX 32 Function IP Transmitter + Shift Function (16 Function TX)
- 92 3 40TX 40 Function IP Transmitter + Shift Function (20 Function TX)

- 92 S 06TX 6 Function IP TX + Stainless Keypad (HD)

300 M (1000 FT.) RANGE

- 93 1 01TX 1 Function Standard Transmitter
- 93 1 02TX 2 Function Standard Transmitter
- 93 1 04TX 4 Function Standard Transmitter
- 93 1 06TX 6 Function Standard Transmitter

- 93 2 04TX 2 & 4 Function IP Transmitter (4 F Keypad only available)
- 93 2 06TX 6 Function IP Transmitter
- 93 2 10TX 10 Function IP Transmitter
- 93 2 16TX 16 Function IP Transmitter
- 93 2 20TX 20 Function IP Transmitter

- 93 3 20TX 20 Function IP Transmitter + Shift Function (10 Function TX)
- 93 3 32TX 32 Function IP Transmitter + Shift Function (16 Function TX)
- 93 3 40TX 40 Function IP Transmitter + Shift Function (20 Function TX)
- 93 S 06TX 6 Function IP TX + Stainless Keypad (HD)

RECEIVERS

45/60 M (150/200 FT.) RANGE (Depends on choice of Transmitter)

- 90 00 RX 2 Function Relay Receiver
- 90 02 RX 2 Function Relay Receiver + Master Output
- 90 04 RX 4 Function Relay Receiver + Master Output

150/300 M (500/1000 FT.) RANGE (Depends on choice of Transmitter)

- 91 00 RX 2 Function Relay Receiver
- 91 02 RX 2 Function Relay Receiver + Master Output
- 91 04 RX 4 Function Relay Receiver + Master Output

45/60 M (150/200 FT.) RANGE (Depends on choice of Transmitter)

- 92 00 RX 2 Function FET Receiver
- 92 02 RX 2 Function FET Receiver + Master Output
- 92 04 RX 4 Function FET Receiver + Master Output
- 92 06 RX 6 Function FET Receiver + Master Output
- 92 10 RX 10 Function FET Receiver + Master Output
- 92 16 RX 16 Function FET Receiver + Master Output
- 92 20 RX 20 Function FET Receiver + Master Output

- 92 00 RXK 2 Function FET Receiver + Keypad
- 92 02 RXK 2 Function FET Receiver + Master Output & Keypad
- 92 04 RXK 4 Function FET Receiver + Master Output & Keypad
- 92 06 RXK 6 Function FET Receiver + Master Output & Keypad

150/300 M (500/1000 FT.) RANGE (Depends on choice of Transmitter)

- 93 00 RX 2 Function FET Receiver
- 93 02 RX 2 Function FET Receiver + Master Output
- 93 04 RX 4 Function FET Receiver + Master Output
- 93 06 RX 6 Function FET Receiver + Master Output
- 93 10 RX 10 Function FET Receiver + Master Output
- 93 16 RX 16 Function FET Receiver + Master Output
- 93 20 RX 20 Function FET Receiver + Master Output

45/60 M (150 / 200 FT.) RANGE (Depends on choice of Transmitter)

- 96 00 RX 2 Function Relay Receiver AC
- 96 02 RX 2 Function Relay Receiver AC + Master Output
- 96 04 RX 4 Function Relay Receiver AC + Master Output

150/300 M (500 / 1000 FT.) RANGE (Depends on choice of Transmitter)

- 97 00 RX 2 Function Relay Receiver AC
- 97 02 RX 2 Function Relay Receiver AC + Master Output
- 97 04 RX 4 Function Relay Receiver AC + Master Output

ACCESSORIES

- 9010 SMA aerial connector fitted to 90 & 91 series
- 9011 Stop & RS232 connectors fitted to 90 & 91 series

- 9160 3.1 m - 2 Core Round - 32/0.2 - 1.00mm2 - SureSeal connector
- 9161 6.15 m - 2 Core Round - 32/0.2 - 1.00mm2 - SureSeal connector
- 9170 3.1 m - 4 Core Round - 32/0.2 - 0.75mm2 - SureSeal connector
- 9171 6.15 m - 4 Core Round - 32/0.2 - 0.75mm2 - SureSeal connector
- 9180 3.1 m - 7 Core Round - 32/0.2 - 0.75mm2 - SureSeal connector
- 9181 6.15 m - 7 Core Round - 32/0.2 - 0.75mm2 - SureSeal connector

- 9604 4 Function IP Series - 4.5 m curly cable wired remote control
- 9606 6 Function IP Series - 4.5 m curly cable wired remote control
- 9610 10 Function IP Series - 4.5 m curly cable wired remote control

- 9616 16 Function IP Series - 4.5 m curly cable wired remote control
- 9620 20 Function IP Series - 4.5 m curly cable wired remote control

- 9801 LoCover Silicone Rubber & lanyard, 2/4/6F Standard Transmitters
- 9802 LoCover IP67, Clear & lanyard, 2/4/6F Standard Transmitters
- 9804 LoCover Fabric, ZIP & lanyard Standard Transmitters + Switch
- 9805 LoCover Fabric & lanyard, 2/4/6F IP Series Transmitters
- 9806 LoCover Fabric & lanyard, 10F IP Series Transmitters
- 9807 LoCover Fabric & lanyard, 16F IP Series Transmitters
- 9808 LoCover Fabric & lanyard, 20F IP Series Transmitters TX

**All supplied with a Lanyard*

- 9812 LoCator for Standard & IP Transmitters
- 9813 Lo-Cator Electronic for Standard & IP TX, + LED & Buzzer
- 9815 Lo-Cator magnets fitted to 9801 Lo-Cover
- 9816 Lo-Cator magnets fitted to any IP TX or Pendant

- 9820 Solenoid 12 Volt, Motor Isolation (Continuously Rated)
- 9821 Solenoid 24 Volt, Motor Isolation (Continuously Rated)
- 9822 Solenoid 12 Volt, DC Motor Forward/Reverse Standard
- 9823 Solenoid 24 Volt, DC Motor Forward/Reverse Standard
- 9824 Solenoid 12 Volt, DC Motor Forward/Reverse Heavy Duty
- 9825 Solenoid 24 Volt, DC Motor Forward/Reverse Heavy Duty
- 9826 Relay 12 Volt
- 9827 Relay 24 Volt
- 9828 Relay 12 Volt Changeover on PCB
- 9829 Relay 24 Volt Changeover on PCB

- 9831 DC Power Filter Kit 15 amp
- 9832 Switch with sealing hood - Receiver ON/OFF (S35)
- 9833 Switch with sealing hood - Receiver ON/Master output (S37)
- 9834 Switch with sealing hood - Manual override 9202RX (S39)
- 9845 9 Volt alkaline battery pack of 10

- 9860 Standard Aerial Antenna Only
- 9861 Standard Aerial assembly + 1 m (3.25 ft.) cable
- 9862 Standard Aerial assembly + 1.61 m (5.3 ft.) cable
- 9863 Standard Aerial assembly + 3 m (10 ft.) cable
- 9869 Standard Aerial assembly + 9 m (30 ft.) cable

- 9871 Potting for ruggedization "90 Series" Receivers 2,4 & 6 Function
- 9872 Potting for ruggedization "90 Series" Receivers 10,16 & 20 F
- 9873 Potting for ruggedization "80 Series" Receivers 10,16 & 20 F

- 9881 Software Configuration 2, 4 and 6 function Receivers
- 9882 Software Configuration 10, 16 and 20 function Receivers
- 9883 Software Configuration 80 series Receivers

ACTUATORS - AIR

60 M (200 FT.) RANGE: Air Actuator System with Standard Transmitter

- 11 1 50 2 Function Receiver/Transmitter/Actuator 12 Volt
- 92 1 54 4 Function Receiver/Transmitter/Actuator 12 Volt + Master
- 92 1 56 6 Function Receiver/Transmitter/Actuator 12 Volt + Master
- 92 1 58 8 Function Receiver/Transmitter/Actuator 12 Volt + Master
- 92 1 60 10 Function Receiver/Transmitter/Actuator 12 Volt + Master
- 92 1 66 16 Function Receiver/Transmitter/Actuator 12 Volt + Master
(24 Volt available on request for the same price)

- 9918 Air Valve only 12 Volt
- 9919 Actuator Kit 12 V - no Actuator 9920
- 9920 Actuator only - with elbows and brackets



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