



PROVEN WIRELESS  
CONTROLS THAT KEEP  
YOUR CREW AND  
EQUIPMENT SAFE.

- UP TO 40 FUNCTIONS
- FLEXIBLE DESIGN FOR CUSTOMIZATIONS
- FCC APPROVED
- SERVICE AVAILABLE



888-685-6327 sales  
877-257-1581 service



## Affordable, Industrial Wireless Control

Lodar is a global brand. We are Lodar USA located in Henrietta, Texas.

Lodar is an industry leader in the design and production of industrial wireless remote controls. Since 1984, the team at Lodar has reinvented and developed the radio remote system to suit the needs of working companies and individuals. With Lodar, quality and excellence come standard. Flexibility in the design allows us to easily modify the range, to meet the many requirements that are requested.

## Quality Comes Standard.

Lodar offers several product lines for industrial use. All systems are created with the utmost quality. Standard, off-the-shelf, Lodar Transmitters and Receivers are set up with:

- Matched Coding
- Momentary Outputs
- 30 Minute Timeout
- Horizontal Interlocks
- Internal Aerial
- Master Output (except on some 2 function models)
- 200 ft/60 m Range (150 ft/45 m for Mini Systems)
- 10 ft/3 m Wiring Harness (2/4/6 function systems)

**BUILT TO CONTROL HUNDREDS OF APPLICATIONS. SINCE 1984, LODAR HAS SPECIALIZED IN CONTROLLING HYDRAULIC, PNEUMATIC OR MANUAL VALVES, AND ELECTRIC SOLENOIDS.**



**Augers - Agriculture - Automation - Conveyors - Docking Systems - Gates - Hand Levers - Hoists - Hoppers - Hoofing - Pumping - Marine - Ramps - Recreation - Security - Seed Carriers - Towing - Trailers - Winches**



Mini systems are used across all markets. With an IP 65 water resistant rating, this transmitter may be small but can perform well in weather.

MINI	
FUNCTIONS	2 / 4
BATTERY	(2) AAA - 3V
PERFORMANCE	150 FT OPERATION
TRANSMITTER	IP 65



Lodar's longest-selling system is the standard line. From winches to automation, the standard is a good size that's ready to perform.

STANDARD	
FUNCTIONS	1 / 2 / 4 / 6
BATTERY	(1) 9V
PERFORMANCE	200 FT OPERATION
TRANSMITTER	IP 54



New to the Lodar product line, the Slim series is the thinnest transmitter available and can control up to 8 functions.

SLIM	
FUNCTIONS	2 / 4 / 6 / 8
BATTERY	2 x AAA - 3 volts
PERFORMANCE	200 FT OPERATION
TRANSMITTER	IP 54



The most industrial casing, the IP series offers the most versatility in terms of number of functions available to operate.

IP	
FUNCTIONS	2 / 4 / 6 / 8-10 / 12 - 16 / 18-20 / 22+ with Shift
BATTERY	(4) AAA - 6V
PERFORMANCE	200 FT OPERATION
TRANSMITTER	IP 65



The Lodar air actuator line has significantly improved the towing industry's ability to wirelessly control hand levers.

AIR ACTUATED SYSTEM	
FUNCTIONS	2 / 4 / 6 / 8-10 / 12 - 16 / 18-20
BATTERY	(1) 9V - 2-6 Functions (4) AAA - 6V - 8+ Functions
PERFORMANCE	200 FT OPERATION
TRANSMITTER	IP 54 - 2-6 Functions IP 65 - 8+ Functions



The Lodar electric actuator line wirelessly controls equipment that do not have air.

ELECTRIC ACTUATED SYSTEM	
FUNCTIONS	2 / 4 / 6
BATTERY	(1) 9V - 2-6 Functions (4) AAA - 6V - 8+ Functions
PERFORMANCE	200 FT OPERATION
TRANSMITTER	IP 54 - 2-6 Functions IP 65 - 8+ Functions



**VALVING REQUIRED**

Our PWM system connects directly to proportional valves with no additional components needed. Calibrate to the specified proportional movement.

PWM	
FUNCTIONS	Up to 12
BATTERY	(4) AAA - 6V
PERFORMANCE	200 FT OPERATION
TRANSMITTER	IP 65



**ADD ONS**

AERIALS	3' - 29' cord with assembly
COVERS	Fits standard or IP
WIRED CONTROLS	IP only for back up
LOCATORS	Holder with or without a sensor

★★★★★ 5-STAR CUSTOMER REVIEW

“Best investment I’ve ever made in my life.”  
~ TIMCO TRANSPORT



### Mini Systems

The Lodar mini transmitter is built to fit in the palm of your hand and offer superior wireless capability for the price. Though mini key fob wireless systems are tempting, choose safety first. Choose Lodar. The buttons are raised so they can be identified even when wearing a glove.



**Transmitter Variations**

- 2 Function
- 4 Function



**LED INDICATOR**

**WATER RESISTANT GASKET**

**MOST COMPACT RECEIVER**



**PVC ENCLOSURE**

TRANSMITTER SPECIFICATIONS		
SWITCH	Type	Silicone Rubber keypad with carbon pill
BATTERY	Type	2 x AAA – 3 volts
CURRENT DRAW	Quiescent	5mA
	Current Transmitting	30 micro amps
PROTECTION	IP Rating	65
	Registration Codes	Over 16 million
PERFORMANCE	Temp. Range	-10° C to + 40° C (13° F to + 104°F)
	Range Nominal	45m (150 ft) from Receiver, when driving a momentary output without signal drop out
	RF Radiated Power	0dBm
COMPLIANCE	FCC	FCC CFR 47 - part 15.231 See more in full spec sheet.
	Modulation	FM
	Frequencies	433.050 MHz to 434.790 MHz

RECEIVER SPECIFICATIONS			
SWITCH TYPE	Output Switching		MOSFET (Positive Switching)
SUPPLY VOLTS	Nominal		12/24 Volts DC
	Range		8 Volts to 36 Volts DC
AMPS	FET Rating		7.5 Amps
	System Rating		7.5 Amps
	Quiescent Current		31 mA 12V / 17 mA on Standby (Not SET)
	Power Rating		100W
AERIAL	Internal Antenna		Internal - 1/4 Wave Wire
	External Antenna		Optional (AC9860/1/2/3 & 9) (Order Separately)
OUTPUTS	Functions Available	Up to 8	Supply to Receiver is switched
PERFORMANCE	Functions	Yes	Momentary with horizontal interlocks
	Instant TX response	Yes	No perceivable delay
DIAGNOSTICS LED'S		Yes	Confirm 5 Volts, SET, Fault and all Outputs.
PROTECTION	Reverse Polarity	Yes	
	Safety		Diode protection, system monitoring using a secondary processor, overload protection by temperature sensor.

## Slim Systems

For those who prefer placing the wireless control in a pocket, the slim is about the size of a smart phone. The included case protects the transmitter if dropped.



### Transmitter Variations

- 2 Function
- 4 Function
- 6 Function
- 8 Function

LED INDICATOR

THINNEST TRANSMITTER DESIGN LODAR OFFERS



### Receiver Variations

- Receiver up to 8 functions
- Black PVC Enclosure



TRANSMITTER SPECIFICATIONS		
SWITCH	Type	12mm Dome Switch
BATTERY	Type	2 x AAA – 3 volts
CURRENT DRAW	Quiescent	5 mA
	Current Transmitting	30 mA
PROTECTION	IP Rating	54
	Registration Codes	Over 16 million
PERFORMANCE	Temp. Range	-40° C to + 80° C (-46° F to + 176° F) Use Lithium for lower temperatures.
	Range Nominal	200 ft from Receiver, when driving a momentary output without signal drop out
	Transmitted Power	< 0.4 mW Typical
COMPLIANCE	FCC	FCC CFR 47-part 15.109 See Full Spec Sheet.
	Modulation	FM
	Frequencies	433.050 MHz to 434.790 MHz

RECEIVER SPECIFICATIONS			
SWITCH TYPE	Output Switching		MOSFET (Positive Switching)
SUPPLY VOLTS	Nominal		12/24 Volts DC
	Range		8 Volts to 36 Volts DC
AMPS	FET Rating		7.5 Amps
	System Rating		7.5 Amps
	Quiescent Current		31 mA 12V / 17 mA on Standby (Not SET)
	Power Rating		100W
AERIAL	Internal Antenna		Internal - 1/4 Wave Wire
	External Antenna		Optional (AC9860/1/2/3 & 9) (Order Separately)
OUTPUTS	Functions Available	Up to 8	Supply to Receiver is switched
PERFORMANCE	Functions	Yes	Momentary with horizontal interlocks
	Instant TX response	Yes	No perceivable delay
DIAGNOSTICS LED'S		Yes	Confirm 5 Volts, SET, Fault and all Outputs.
PROTECTION	Reverse Polarity	Yes	
	Safety		Diode protection, system monitoring using a secondary processor, overload protection by temperature sensor.

## PWM Systems

Our PWM system connects directly to proportional valves for soft-start, soft-stop movement. Calibrate through programming to the specified proportional timing.

IP SERIES TRANSMITTERS CONNECT TO THE PWM SERIES UP TO 12 FUNCTIONS



PROPORTIONAL VALVING SOLD SEPARATELY

PWM RECEIVER	
CONNECTION - CASE	Deutsch HDP24 24 - 31 - PE Receptacle with pins
CONNECTION - HARNESS	Deutsch HDP26 24 - 31 - SE Plug with sockets
FREQUENCY	5000 hz
THRESHOLD	Adjustable
TOP LIMIT	Adjustable
DITHER FREQUENCY	10 - 200Hz
DITHER AMPLITUDE	0 - 20%
RAMP UP TIME - MAX	100 - 5000 milliseconds
RAMP DOWN TIME - MAX	100 - 5000 milliseconds
FLOW CONTROL ADJUSTMENT	Yes - Requires dedicated TX buttons
FLOW CONTROL START LEVEL	Adjustable between threshold and top limit

For full transmitter and receiver specifications visit [www.lodar.com](http://www.lodar.com)

★★★★★ 5-STAR CUSTOMER REVIEW

“ Best product ever made. ”  
~ TERRY



### Standard Systems

Lodar's standard transmitter has been the bestselling transmitter for the past 20 years. The tactile dome buttons are protected by a wipe clean overlay. Customization is available for transmitter function buttons on any order.



### Transmitter Variations

- 2 Function
- 4 Function
- 6 Function



INCLUDED SILICONE CASE



### Receiver Variations

- Keypad Up To 6 Functions
- Black PVC Enclosure



INCLUDED 10FT WIRING LOOM SUPPLIED AND FITTED - SCREW TERMINAL INTO PLUG AND SOCKET ON PCB - CABLE GLANDS

TRANSMITTER SPECIFICATIONS		
SWITCH	Type	12mm Dome Switch
BATTERY	Type	1x 9V Alkaline Manganese
CURRENT DRAW	Quiescent	15µA
	Operating	20mA
PROTECTION	IP Rating	54
	Registration Codes	Over 16 million
PERFORMANCE	Temp. Range	-10° C to + 40° C (13° F to + 104°F)
	Range Nominal	60m (200ft)
	Transmitted Power	1 mW Typical
COMPLIANCE	FCC	FCC CFR 47- part 15.231 433.9MHz
	Modulation	2-GFSK. Gaussian Frequency Shift Keying
	Frequencies	433.050 MHz to 434.790 MHz

RECEIVER SPECIFICATIONS		
SWITCH TYPE	Output Switching	MOSFET (Positive Switching)
SUPPLY VOLTS	Nominal	12/24 Volts DC
	Range	8 to 36V DC
AMPS	FET Rating	10A
	System Rating	10A
	Quiescent Current	31mA 12V/ 17mA 24V on Standby (Not SET)
	Overload Protection	10A (Auto Shut down)
AERIAL	Internal Antenna	Supplied and fitted
	External Antenna	Optional (AC9860/ AC9861/ AC9862/ AC9863 & AC9869)
OUTPUTS	Functions Available	2-6 Supply to Receiver is switched
PERFORMANCE	Simultaneous Outputs	Yes Programmable (Modify through configuration)
	Instant TX response	Yes Programmable (Modify through configuration)
DIAGNOSTICS	LEDs	Yes Confirm 5 Volts, SET, Fault and all Outputs
PROTECTION	Back EMF	Yes Diode protection on all outputs
	STOP Connection	Yes Internal Emergency Stop Connection

## IP Systems

From automation to towing, the Lodar IP transmitter has universal use across dozens of industries. Choose from a range of functions varying from 2 to 40 available. The large tactile dome buttons are protected by a wipe clean overlay.

### Transmitter Variations

- 2 Function
- 4 Function
- 6 Function
- 8-10 Function
- 12-16 Function
- 18-20 Function
- 22+ with Shift
- Stainless Option up to 6 Functions



### DEEP RECEIVER

2 cm deeper base allows extra wiring.

### FUNCTIONALITY

Fits 10 / 16 - 18 / 20+ functions

### KEY PAD

Available up to 6 functions.



CHANNELS	CHANNEL SELECTION	TECHNOLOGY
32	Fixed   Channel Hopping	Fixed Receiver

### Receiver Variations

- Keypad Up To 6 Functions
- Black PVC Enclosure

TRANSMITTER SPECIFICATIONS		
SWITCH	Type	Tactile Dome on PCB Keypad
BATTERY	Type	4 x AAA Alkaline Manganese (6 Volts) Use Lithium for lower temperatures
CURRENT DRAW	Quiescent	15µA
	Operating	20mA
PROTECTION	IP Rating	65
	Registration Codes	Over 16 million
PERFORMANCE	Temp. Range	-10° C to + 40° C (13° F to + 104°F)
	Range Nominal	60 meters (200 ft.)
	Transmitted Power	1 mW Typical
COMPLIANCE	EMC	FCC CFR 47-part 15.231 433.9MHz
	Modulation	2-GFSK. Gaussian Frequency Shift Keying
	Frequencies	433.050 MHz to 434.790 MHz

RECEIVER SPECIFICATIONS			
SWITCH TYPE	Output Switching		MOSFET (Positive Switching)
SUPPLY VOLTS	Nominal		12/24 Volts DC
	Range		8 Volts to 36 Volts DC
AMPS	FET Rating		10A
	System Rating		10A
	Quiescent Current		31mA 12V/ 17mA 24V on Standby (Not SET)
AERIAL	Overload Protection		10A (Auto Shutdown)
	Internal Antenna		Supplied and fitted
OUTPUTS	External Antenna		Optional AC9860/ AC9861/ AC9862/ AC9863 & AC9869
	Available Functions	22+	Supply to Receiver is switched
PERFORMANCE	Simultaneous Outputs	Yes	Programmable (Modify through configuration)
	Instant TX response	Yes	Programmable (Modify through configuration)
DIAGNOSTICS	LEDs	Yes	Confirm 5 Volts, SET, Fault and all Outputs.
PROTECTION	Back EMF	Yes	Diode protection on all outputs
	STOP Connection	Yes	Internal Emergency Stop Connection
	Registration Codes	Yes	Over 16 million

★★★★★ 5-STAR CUSTOMER REVIEW



“ Super fast shipping, super easy to connect with my system. ”  
~ FRANCIS

★★★★★ 5-STAR CUSTOMER REVIEW

“ Good system.  
~ WALT ”

**OPTIONS**

Control air or electric actutators wirelessly.

**SAFETY**

Operate hand levers wirelessly 200 feet away from accidents.

**Air Systems**

Wirelessly operate up to 20 hand levers with Lodar's air system. Connect the air cylinder and hoses to the hand lever and walk away from a crash site for increased safety.



**Air Variations**

- |                             |                       |
|-----------------------------|-----------------------|
| <b>Standard Transmitter</b> | <b>IP Transmitter</b> |
| • 2 Function                | • 8 Function          |
| • 4 Function                | • 10 Function         |
| • 6 Function                | • 12 Function         |
|                             | • 14 Function         |
|                             | • 16 Function         |
|                             | • 18 Function         |
|                             | • 20 Function         |

AIR CYLINDER SPECIFICATIONS	
BORE SIZE	32 mm
PORT SIZE	1/8"
STROKE	50 mm
FLUID	Compressed Air
ACTING	Double or Single Acting
CUSHION	Adjustable Type
OPERATING PRESSURE RANGE	21-120 PSI
MAX PRESSURE RANGE	135 PSI
BARREL MATERIAL	Stainless Steel SUS304
MAGNET	Built-In
AMBIENT TEMPERATURE	23°F - 140°F (-5°C - 60°C)
PISTON SPEED	(1.96 - 27.55"/Sec) 50 - 700 mm/Sec

**Electric Systems**

Control electric hand levers wirelessly by connecting the Actus electric actuator system to the system, 12V and a ground. No air required for operation.



**Electric Variations**

- Standard Transmitter**
- 2 Function
  - 4 Function
  - 6 Function



ACTUS ELECTRIC ACTUATOR SPECIFICATIONS	
WEIGHT	3.6 lbs
OPERATING VOLTAGE	10.3-16 VDC, 12VDC Nominal
STROKE	2.5"
CLUTCH CURRENT	0.6 amp
OUTPUT FORCE (HOLDING)	60 lbf @ 3 amp
OUTPUT FORCE (DYNAMIC)	150 lbs
CONSTRUCTION	Stainless Steel Output Shaft
	Industrial Grade Rod Seal
	Aluminum Die Cast Housing
	E-Coated for Corrosion Resistance
OPERATING TEMPERATURE	-40°F - 158°F (-40°C - 70°C)
MAX NO LOAD SPEED	1.5" / Sec

View transmitter and receiver specifications on pages 18-21.

★★★★★ 5-STAR CUSTOMER REVIEW

“Smartest move I ever made.”  
~ S&S MOBILE



**Customization | Transmitter**

Lodar's customization options range from button image printing with text or images or full private label offerings for significant quantities. The mini transmitter will allow changes to the faceplate, gasket color and external case color. The standard and IP transmitters offer changes to the faceplate only.

**COLOR**

Gasket Options



Case Options



**KEYPAD OVERLAY**

Change the whole labeling of the faceplate. Minimum order of 100 pieces required.

**STAINLESS**

Stainless faceplate available.



**BUTTON IMAGES**

Choose text or images. Visit [www.lodar.com](http://www.lodar.com) for thousands of options.

To the right shows an example of shift button.

To the left shows images.



**SOFTWARE**

**Shift Controls**

Shift between controls by pressing the Green Restart button. A second light comes on in the enclosure to operate the second bank of button images, matched with the correct Receiver outputs.

16F Transmitter with Shift Controls  
+ (2) 16F Receiver  
= 32 outputs

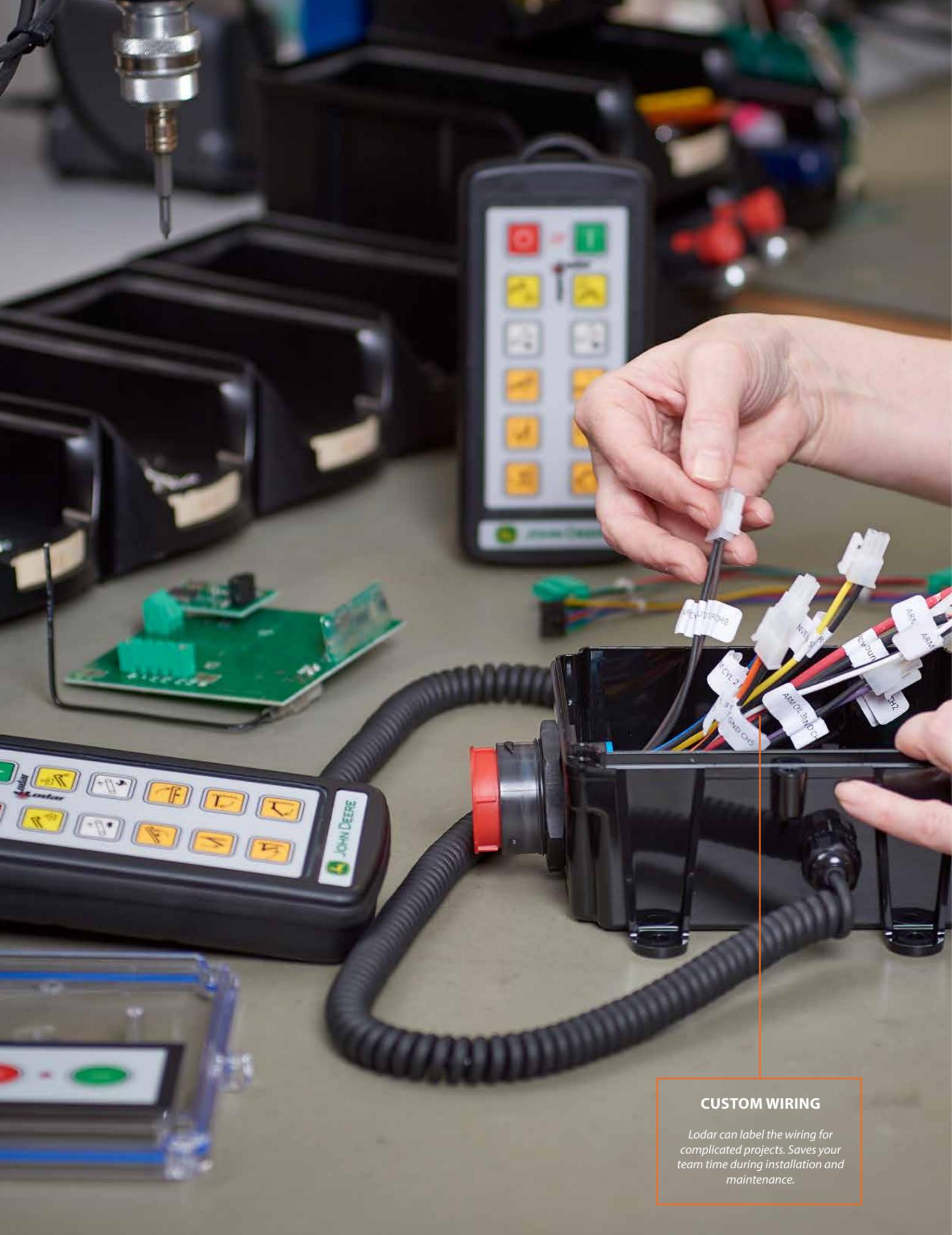
**Extend Controls**

Use when you want a smaller Transmitter but need more functions than it would normally give. This eliminates using the larger 16 function Transmitter; or a 10 function Transmitter that could effectively give you 20 outputs.

6F Transmitter + (1) 16F Receiver  
= 12 outputs

**CUSTOM LOGO**

Minimum order of 100 pieces required. The cost is effected by the number of colors and the qty ordered.



## Customization | Receiver

Below are examples of special fittings and special order requests that our team can accommodate. The turn around time once the order is placed is 2-3 weeks.

### OPERATING RANGE

Close proximity to operate up to 15 units at the same time.

A special fitting is added for 1,000 ft. operation.

### MULTIPLE RECEIVERS

Can be set with the same codes, allowing the Receivers to work simultaneously, at the press of a single button. Useful for the opening of multiple doors.



### EXTRA SWITCHES

Can be fitted to the enclosure and connected to a chosen function, to allow manual operation of said function(s). A useful backup option in the event of any radio failure.



### WIRING

**Standard**  
Include 10 ft/3 m Wiring Harness (2/4/6 function systems)

**Custom**  
10+ systems do not include wiring.  
Custom pre-wiring available for quantity orders.



### POTTING

A silicone gel coating, covering the electronic components. Ideal for very tough conditions, dealing with heavy vibration and extreme condensation

### AERIALS

Lodar is fitted with an internal aerial, to give a specified range. Sometimes, conditions or location of the Receiver reduces its performance so fitting an external aerial will restore the operating distance to the correct specification. The external aerial, of a specific length, will only restore the performance - it will not enhance it.



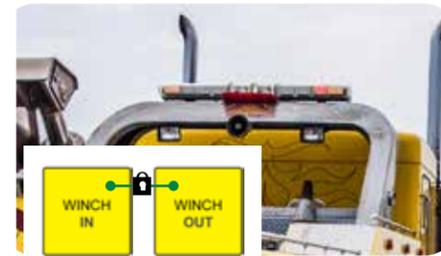
### CUSTOM WIRING

Lodar can label the wiring for complicated projects. Saves your team time during installation and maintenance.



## Customization | Software Configuration

The software and firmware within the Lodar receiver can be customized to optimize the use of the product for your specific requirements. We take off-the-shelf hardware and change the system to perform according to the specifications of your application. Here are a few customizations available:



**Interlocks** – Lodar comes standard with pre-programmed interlocks that limit functions from being used simultaneously. Remove some, or all, of the horizontal interlocks, on a function by function basis, or set them to work in whatever sequence you wish, vertically or horizontally. Useful if you wish to prevent two pieces of equipment being operated together.



**Timing** – For applications that have timed ladder logic, Lodar can change the timeout or timed limits for each function within milliseconds.

**Timeout** – Can be changed to suit your needs on a function by function basis. A useful safety feature, allowing you to set your own parameters.

**Timed Limits** – Delays can be added to any function so that the function activates when needed after the button has been pressed. Often used with the Master, asking the function to activate a few seconds after the Master engages.



**Latching** – Lodar's controls are momentary outputs. Change to latching outputs to allow the function to stay on without having to hold down the button. Great option for long cycle times.

**Push/Push Latching** – Press desired function button to turn latching on, press again to turn it off.

Common Uses:  
- Pumps

**Radio Latching** – Press desired function button to turn latching on, press alternative function button to turn it off which can in turn activate second function.

Common Uses:  
- Rotators  
- On / Off  
- Open / Close



NEED MORE?

Have a big idea and need a wireless system to control your equipment?  
We can change the firmware to suit your idea.

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[www.lodarus.com](http://www.lodarus.com)

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888-685-6327



### **Guarantee**

All Lodar includes a 5 year pro-rated warranty. We guarantee the highest quality and reliability.



### **Team**

We offer the highest quality customer service and quick custom wireless solutions.



### **Quality**

Lodar systems go through rigorous testing to ensure quality and safety standards are upheld.



### **Reliability**

Our wireless systems were made for those who depend on equipment that works the first time, every time.



## **LINE CARD**

*MINI*

*Up to 4 functions*

*SLIM*

*Up to 8 functions*

*STANDARD*

*Up to 6 functions*

*IP*

*Up to 40 functions*

*AIR OR ELECTRIC  
Hand lever operation  
up to 20 functions*

*PWM*

*Up to 12 functions*

*CUSTOM*

*Spec Development  
Software Configuration  
IP Shift and Stainless  
Button Images  
Accessories  
Potting  
Wiring*