



Wireless Hydraulic Control System

Installation and Operation Manual



Engineered and Manufactured by

BRAND
HYDRAULICS CO.
Made in the Heartland of America

2.4 GHZ
Extended Range

32-bit
Microprocessor



ISO 9001:2015 WITH DESIGN
Certificate #02.002.1



400 Series
6 Function Remote



400 Series
8 Function Remote



800 Series
4 Function Remote



900 Series
6 Function Remote



Landoll Part #	209101
Brand Part #	EWP0842

Landoll Part #	213505
Brand Part #	EWP0908

Landoll Part #	234702
Brand Part #	EWP1020

Landoll Part #	213503
Brand Part #	EWP0906

Loadoll
6 Function Remote



Wireless
Receiver



Cable
Harnesses



4 Output / 6 Output / 8 Output

Landoll Part #	213504
Brand Part #	EWP0907

Landoll Part #	209102
Brand Part #	EWP0843

Landoll Part #	235567 / 209103 / 213506
Brand Part #	EWP1021 / EWP0846 / EWP0912





400 Series Trailers

		Transmitter	Receiver	Cable Harness
6 Function	Landoll Part #	209101	209102	209103
	Brand Part #	EWP0842	EWP0843	EWP0846
8 Function	Landoll Part #	213505	209102	213506
	Brand Part #	EWP0908	EWP0843	EWP0912

800 Series Trailers

		Transmitter	Receiver	Cable Harness
4 Function	Landoll Part #	234702	209102	235567
	Brand Part #	EWP1020	EWP0843	EWP1021

900 Series Trailers

		Transmitter	Receiver	Cable Harness
6 Function	Landoll Part #	213503	209102	209103
	Brand Part #	EWP0906	EWP0843	EWP0846

Loadoll Trailers

		Transmitter	Receiver	Cable Harness
6 Function	Landoll Part #	213504	209102	209103
	Brand Part #	EWP0907	EWP0843	EWP0846



1 - Power ON Button

The "ON" button will send a message to the receiver placing it in the "ON" state. All function buttons on the transmitter will become operational. The function buttons will remain active until the "OFF" button is pressed.

2 - Power OFF Button

The "OFF" button will send a message to the receiver placing it in the "OFF" state. All function buttons on the transmitter will become non-operational. The unit should be turned OFF when not in use.

3 - Transmit Indicator LED

This LED will flash when either the power or a function button is pressed. It will continue to flash if a button is held down to indicate that it is continually transmitting.

4 - Low Battery Indicator

This LED will flash during a transmit when the battery is in need of replacement.

5 - Function Buttons

When a function button is pressed the receiver output will be active until the function button is released.

Your Landoll transmitter can operate two functions simultaneously as long as they are not opposing functions. The buttons are arranged so that opposing functions are located adjacent to each other in the same row. When two buttons in the same row are pressed the receiver will lock out both functions until one of the buttons is released. Any two non-opposing functions can be operated simultaneously.

6 - Seal Skirt

Protective skirt that surrounds the transmitter and seals the enclosure

7 - Compliance Label

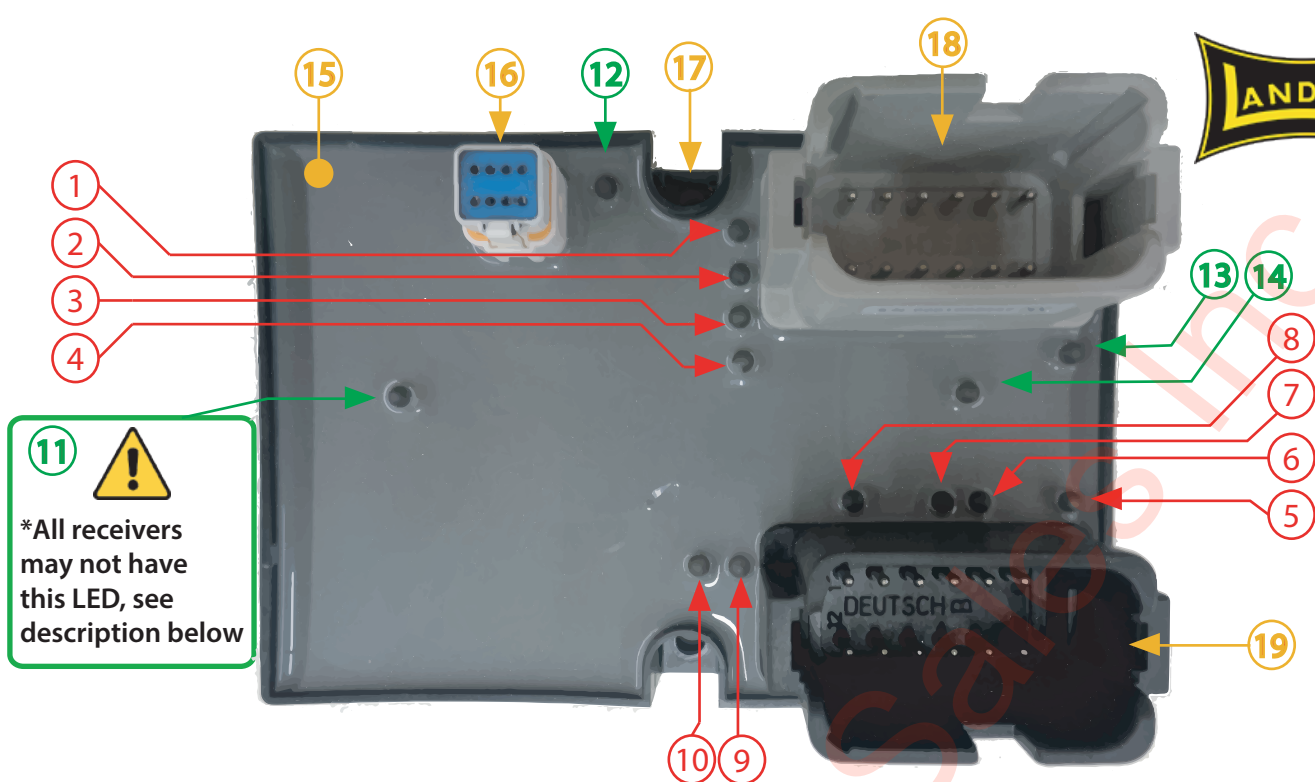
FCC and IC numbers. Do not remove this label

8 - Pairing Instruction Label

Instructions for pairing the transmitter to a receiver

9 - Product Label

Do not remove this label. Use this information when calling for technical support.



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*All receivers may not have this LED, see description below

Output LEDs

1 - Output 1 (Red)

This LED will be continuously illuminated when an output is being activated.

2 - Output 2 (Red)

This LED will be continuously illuminated when an output is being activated.

3 - Output 3 (Red)

This LED will be continuously illuminated when an output is being activated.

4 - Output 4 (Red)

This LED will be continuously illuminated when an output is being activated.

5 - Output 5 (Red)

This LED will be continuously illuminated when an output is being activated.

6 - Output 6 (Red)

This LED will be continuously illuminated when an output is being activated.

7 - Output 7 (Red)

This LED will be continuously illuminated when an output is being activated.

8 - Output 8 (Red)

This LED will be continuously illuminated when an output is being activated.

9 - Output 9 (Red)

This LED will be continuously illuminated when an output is being activated.

10 - Output 10 (Red)

This LED will be continuously illuminated when an output is being activated.

System Health LEDs

11 - Reset (Yellow)

THIS LED MAY NOT BE PRESENT ON YOUR RECEIVER. IT HAS BEEN DISCONTINUED ON NEWER MODELS.

This LED will flash occasionally if the receiver detects an error and automatically resets itself. Upon restart, the control will return to its original state and should not be of concern unless it happens continuously.

12 - Transmit (Green/Yellow/Red)

- The LED will rapidly pulse **Yellow** during the pairing window (10 seconds). The pairing process must be done during this window. When pairing, the LED will flash **Yellow** 3 times to indicate a successful pair -see pg 5 for pairing instructions
- The LED will pulse a **Dimmed Green** light when the unit is functioning normally
- The LED will flash **Green** every time a message is received from the transmitter
- If the LED is continually **Red**, a network error has occurred and the receiver needs to be powered off and back on

13 - Power Good (Green)

This LED will be continuously illuminated when power is provided to the receiver.

14 - Reverse Polarity (Amber)

This LED will be continuously illuminated when power is connected in the reverse direction. The receiver will not function in the state.

Connectors/Enclosure

15 - Encapsulated

Waterproof encapsulate completely sealing the circuit board inside.

16 - Programming Connector

Factory Use Only! **DO NOT** remove this plug.

17 - Mounting Holes

The receiver has two mounting holes. Mount with #8 Button Head Type screw.

18 - Power/Output Receptacle - A

Receptacle A - Gray.

19 - Output Receptacle - B

Receptacle B - Black.



Outputs 7-10 may not be used depending on the transmitter model being paired with the receiver.



Pairing Handheld with Trailer:

1. Disconnect power to trailer then reconnect
2. Once the Receive LED (shown at right) begins rapidly pulsing a Yellow color, press and hold the Green "ON" button on the handheld until the Receive LED flashes a sustained Yellow three times in succession. This indicates a successful pair.
3. Normal operation can now resume



The pairing steps above must be completed within 10 seconds of the trailer being reconnected

Output Operation:

Each button on the transmitter will activate one output on the receiver. Two operations are allowed simultaneously as long as they are not opposing functions. When opposing function buttons are pressed at the same time, the receiver will lock out those outputs until one of the buttons is released. Any two non-opposing functions can be operated at the same time.

On/Off Operation:

The "On" and "Off" button each will send a message to the receiver placing it in the corresponding state. Once in the off state, the receiver will shut down all outputs and only respond to an "On" signal.

The Transmitter, once placed in the off state, will also only respond to an "On" signal.

The "Off" button/message will override any state of the receiver and transmitter. Even if another button is pressed, the "Off" button will respond appropriately.

**Overcurrent Protection:**

A current draw over 10A will cause the control to shut down and lock out all outputs. During this time, the control will still receive messages, but will ignore them. The green Receive LED on the receiver will flash whenever a button is pressed on the transmitter, but no output LEDs will turn on. Possible causes for this are too heavy of a load, or a short circuit. Disconnect power to the receiver and reconnect to reset the receiver.

Multiple Pairs in Same Area:

The network design allows multiple pairs to be operated in the same area. Each transmitter and each receiver must be paired properly to ensure against interference.

Receive LED (#12 on Receiver Diagram pg. 4)

- ➔ When pairing, the LED will rapidly pulse **Yellow** to indicate that the 10 second pairing window is open. The LED will flash a sustained Yellow three times in succession to indicate a successful pair
- ➔ The LED will rapidly pulse a **Dimmed Green** light when the unit is powered on and functioning normally
- ➔ The LED will flash **Green** every time a message is received from the transmitter
- ➔ If the LED is continually **Red**, a network error has occurred and the receiver needs to be powered off and back on

Low Battery Operation:

The "Low Battery" indicator will flash when battery capacity is less than 10%. The transmitter will still function with a low battery for a limited time. If both the Transmit LED and Low Battery LED flash during a button press, the unit is still successfully transmitting, but will need a battery replacement soon. If upon a button press, only the Low Battery LED is pressed, then the battery is too depleted for the unit to transmit to the receiver and the battery will need replaced.

How to Change Internal Battery



- 1) Press the OFF button on the transmitter
- 2) Disconnect power from the receiver
- 3) Remove (4) screws from the back of the transmitter (See photo at right)
- 4) Separate the (2) halves of the transmitter

-- Do NOT remove the seal skirt from the enclosure base



Enclosure screw locations

- 5) Using a flathead screwdriver, gently pry the old coin cell battery from its holder.



When removing the battery, insert screwdriver underneath the battery from the open side of the battery holder. DO NOT attempt to pry the battery from the sides where the gold battery contacts are. See photos below.

CORRECT BATTERY REMOVAL



INCORRECT BATTERY REMOVAL



How to Change Internal Battery (cont)



Only use high quality, name brand 3V CR2450 Lithium batteries

- 6) Gently install the new battery into the holder. It should snap into the holder
 - a. Note the direction of the battery. The + Symbol must be facing up.
- 7) Place the (2) halves of the transmitter back together
 - a. Take your time and make sure seal fits correctly
 - b. Ensure that the ribbon cable does not get pinched between the (2) halves



Correct Battery Placement



DO NOT pinch flexible ribbon between (2) halves of enclosure

Incorrect Seal Skirt Placement



Correct Seal Skirt Placement



How to Change Internal Battery (cont)



8) Install the (4) screws back onto the transmitter

Do not over tighten

9) Turn the transmitter over and push the ON power button

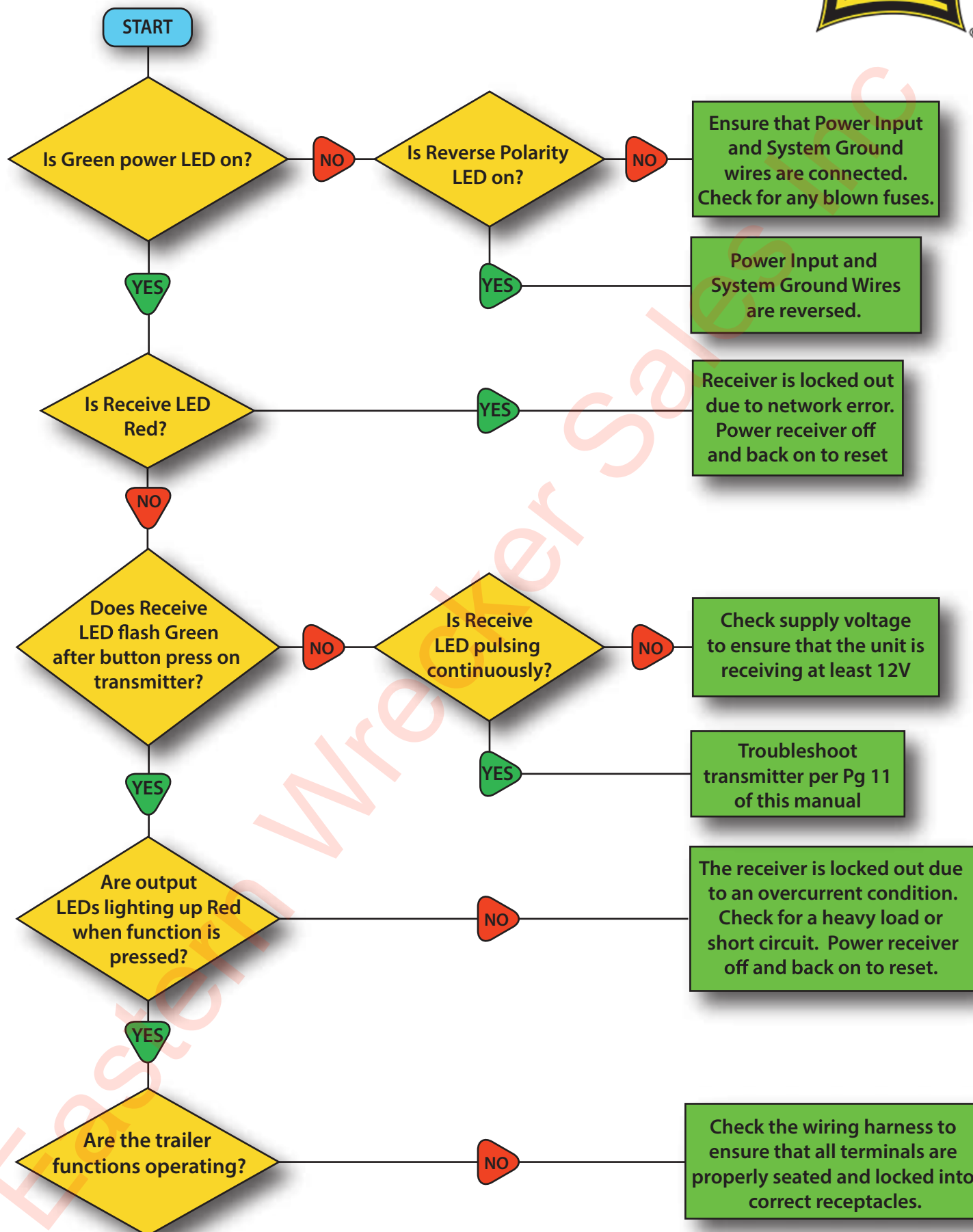
10) Push any function and confirm the "Transmit" LED illuminates

11) Push the OFF power button

12) Reconnect the power to the receiver

13) The system is now ready for normal operation

Landoll Receiver Troubleshooting



Landoll Transmitter Troubleshooting

