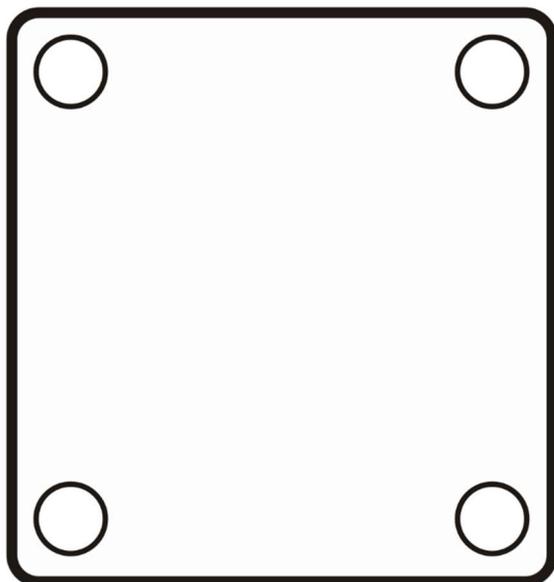




# "Notice"

**Always** install the proximity control box with the wires pointed toward the ground.

TOP

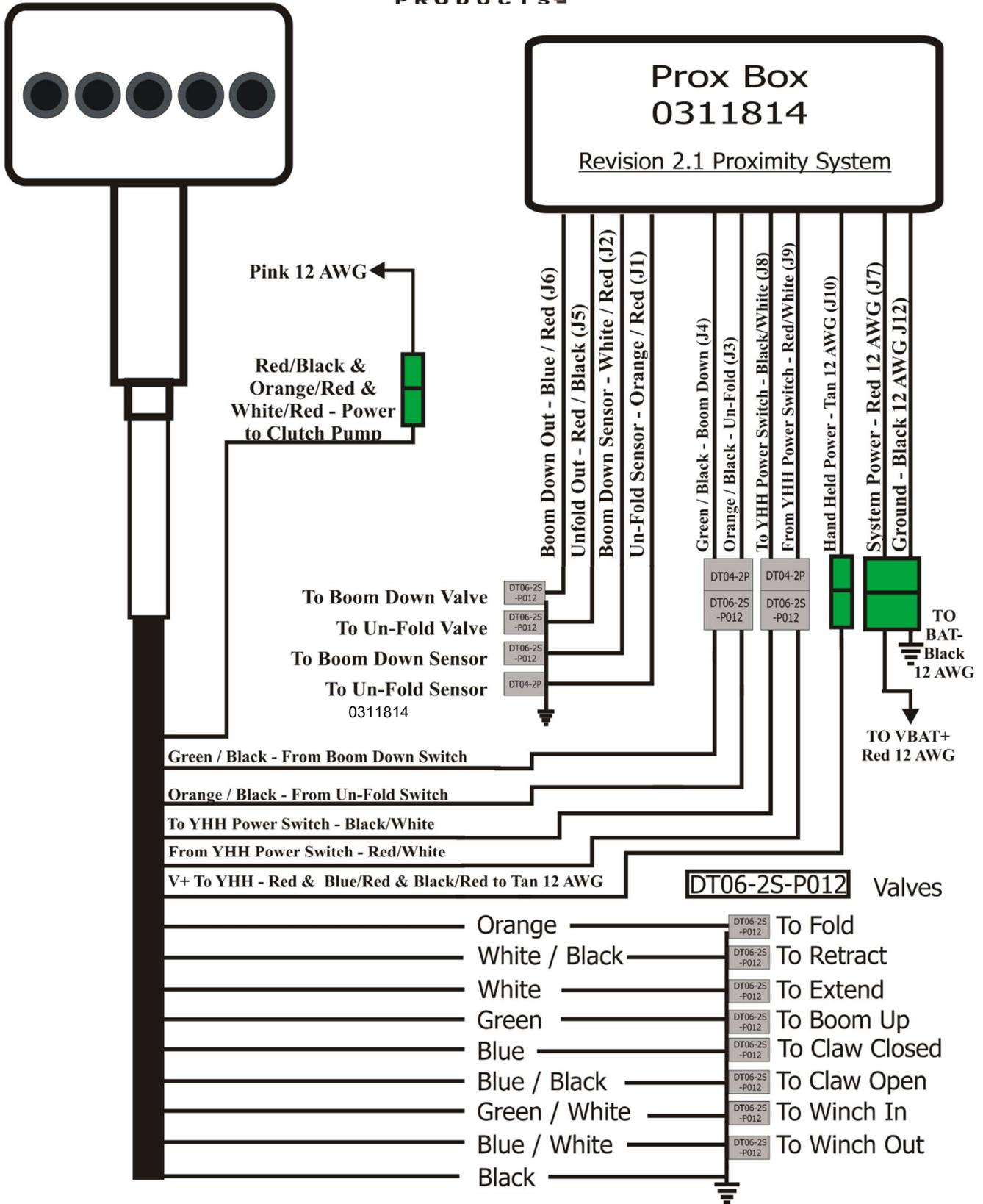


The preferred location of this box is inside the toolbox to isolate it from tire spray and potential wet conditions.

Always install this box with the cable gland pointed down and include a proper DRIP LOOP.

Bottom

124004505 /  
124004506



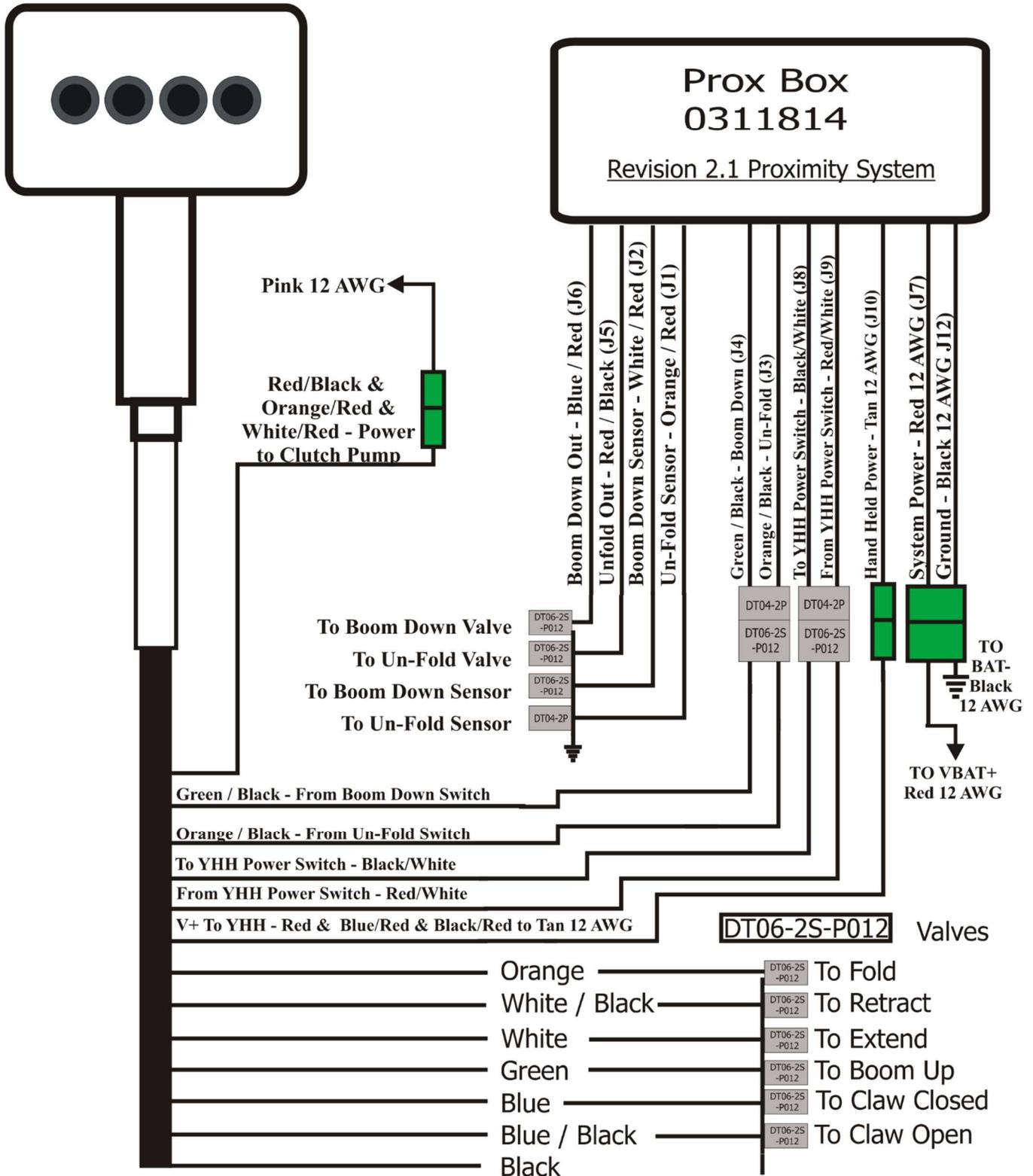
**Power Up Products**

82 Hardy Drive, Sparks, NV 89431

Phone: (800) 769-3749

Order Online at [www.powerup.com](http://www.powerup.com)

0911496



**Power Up Products**

82 Hardy Drive, Sparks, NV 89431

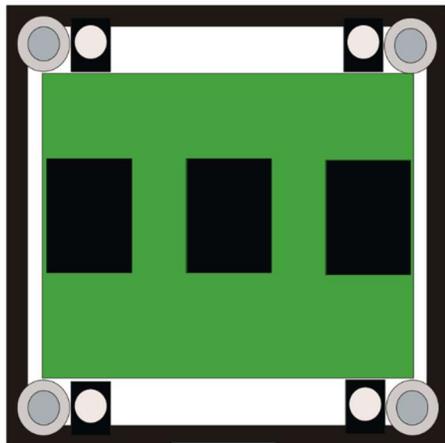
Phone: (800) 769-3749

Order Online at [www.powerup.com](http://www.powerup.com)



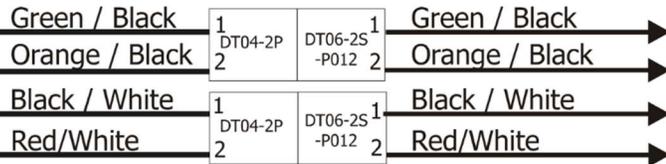
Proximity Box  
Wiring Diagram  
P/N 0311814

Revision 2.1 Proximity System

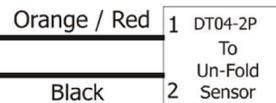


Deutsch  
Connectors

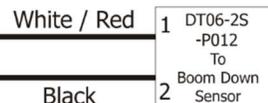
To Controller



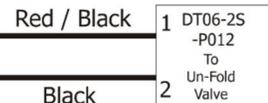
Deutsch  
Connector



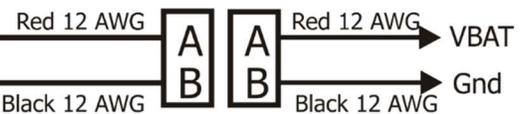
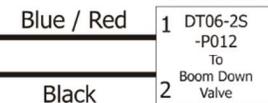
Deutsch  
Connector



Deutsch  
Connector



Deutsch  
Connector



YHH Out to Clutch Pump - Red/Black & Orange/Red & White/Red to Pink 12 AWG

YHH Power - Red & Blue/Red & Black/Red To Tan 12 AWG

**Power Up Products**

82 Hardy Drive, Sparks, NV 89431

Phone: (800) 769-3749

Order Online at [www.powerup.com](http://www.powerup.com)



# PN 124004505 / 124004506

## Wire Color Code

<u>Fold</u>	—————→	<u>Orange</u>
<u>Un-Fold</u>	—————→	<u>Orange/Black</u>
<u>Retract</u>	—————→	<u>White/Black</u>
<u>Extend</u>	—————→	<u>White</u>
<u>Boom Up</u>	—————→	<u>Green</u>
<u>Boom Down</u>	—————→	<u>Green/Black</u>
<u>Claw Close</u>	—————→	<u>Blue</u>
<u>Claw Open</u>	—————→	<u>Blue/Black</u>
<u>Winch In</u>	—————→	<u>Green/White</u>
<u>Winch Out</u>	—————→	<u>Blue/White</u>
<u>Power Out to Clutch Pump</u>	—————→	<u>Red/Black &amp; Orange/Red &amp; White/Red to 5" Pink</u>
<u>Handheld System Power</u>	—————→	<u>Red &amp; Blue/Red &amp; Black/Red to 5" Tan</u>
<u>Input to Power Switch</u>	—————→	<u>Black/White</u>
<u>Output From Power Switch</u>	—————→	<u>Red/White</u>
<u>Ground</u>	—————→	<u>Black</u>



# PN 0911496

## Wire Color Code

<u>Fold</u>	—————→	<u>Orange</u>
<u>Un-Fold</u>	—————→	<u>Orange/Black</u>
<u>Retract</u>	—————→	<u>White/Black</u>
<u>Extend</u>	—————→	<u>White</u>
<u>Boom Up</u>	—————→	<u>Green</u>
<u>Boom Down</u>	—————→	<u>Green/Black</u>
<u>Claw Close</u>	—————→	<u>Blue</u>
<u>Claw Open</u>	—————→	<u>Blue/Black</u>
<u>Power Out to Clutch Pump</u>	—————→	<u>Red/Black &amp; Orange/Red &amp; White/Red to 5" Pink</u>
<u>Handheld System Power</u>	—————→	<u>Red &amp; Blue/Red &amp; Black/Red to 5" Tan</u>
<u>Input to Power Switch</u>	—————→	<u>Black/White</u>
<u>Output From Power Switch</u>	—————→	<u>Red/White</u>
<u>Ground</u>	—————→	<u>Black</u>



## PN 0311814 - Proximity Box Harness Wire Color Code

<u>Function</u>	<u>Color</u>	<u>Box Terminal</u>	<u>Termination Point</u>
<u>To Un-Fold Sensor</u>	<u>Orange/Red</u>	<u>J01</u>	<u>P1 (Female)</u>
<u>To Boom Down Sensor</u>	<u>White/Red</u>	<u>J02</u>	<u>P1 (Male)</u>
<u>From Un-Fold Switch</u>	<u>Orange/Black</u>	<u>J03</u>	<u>P1 (Female)</u>
<u>From Boom Down Switch</u>	<u>Green/Black</u>	<u>J04</u>	<u>P2 (Female)</u>
<u>To Un-Fold Valve</u>	<u>Red/Black</u>	<u>J05</u>	<u>P1 (Male)</u>
<u>To Boom Down Valve</u>	<u>Blue/Red</u>	<u>J06</u>	<u>P1 (Male)</u>
<u>System Power</u>	<u>Orange &amp; White &amp; Green &amp; Blue to Red 5" Harness</u>	<u>J07</u>	<u>12awg Butt-Connector to Red 12awg</u>
<u>Input to Power Switch</u>	<u>Black/White</u>	<u>J08</u>	<u>P1 (Female)</u>
<u>Output From Power Switch</u>	<u>Red/White</u>	<u>J09</u>	<u>P2 (Female)</u>
<u>B+ to Handheld</u>	<u>Red &amp; Black/Red &amp; Green/White &amp; Blue/White to Tan 5" Harness</u>	<u>J10</u>	<u>12awg Butt-Connector to Tan 12awg</u>
<u>Ground</u>	<u>White/Black &amp; Blue/Black &amp; Black</u>	<u>J12</u>	<u>Splice to Black 16awg wire</u>



**0501789**

(124004505 STANDARD HANDHELD)

(124004506 SMALL HANDHELD)

## **INSTALLATION INSTRUCTIONS POWER TILT SELF LEVELING SYSTEM**

**THE SELF LEVELING SYSTEM USES PROXIMITY SENSORS TO PROVIDE A SIGNAL TO THE HYDRAULIC CONTROL VALVE TO STOP BOOM AND UNDERLIFT TILT MOVEMENT AT A DESIRED POSITION. IT ALSO OFFERS THE OPTION TO CONTINUE MOVEMENT OF THE BOOM AND UNDERLIFT BEYOND THE SENSORS BY RELEASING, THEN RE-INITIALIZING THE CONTROLLER SWITCH.**

### **A.1 HOW THE SENSORS WORK**

The sensor is a normally open switch controlled by a magnet. When a metal object (flag) passes in front of the magnet, the magnet closes the switch. Thus, sending a signal to a controller to interrupt the signal to the control valve which in turn stops the function movement.

### **A.2 PROXIMITY CONTROL BOX INSTALLATION**

- (a) Install the proximity control box following the instructions that came with your system.

**NOTE**  
**ALWAYS INSTALL THE PROXIMITY CONTROL BOX WITH THE WIRES POINTED TOWARD THE GROUND WITH A DRIP LOOP, AND PREFERABLY INSIDE THE TOOLBOX TO ISOLATE IT FROM TIRE SPRAY AND POTENTIAL WET CONDITIONS.**

### **A.3 BOOM LEVELING SENSOR INSTALLATION**

- (a) Mount sensor to the adjustable mounting bracket (Part Number 0807641) as shown in Figure A.1 (Note: DO NOT TIGHTEN)

**Power Up Products**

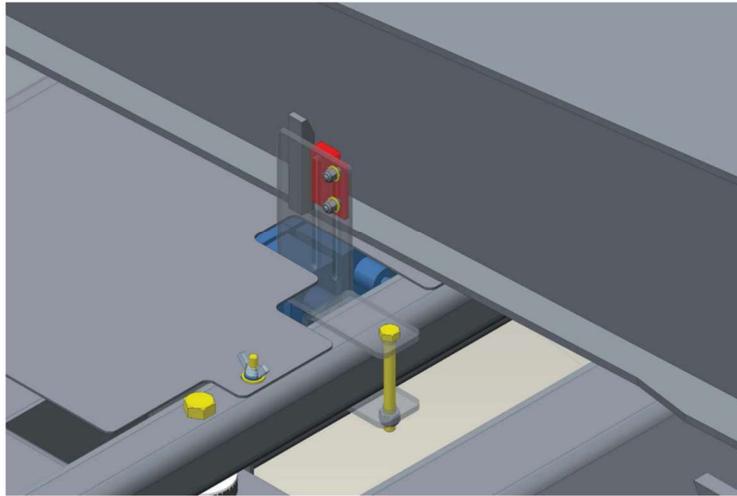
**Phone: (800) 769-3749**

82 Hardy Drive, Sparks, NV 89431

**Order Online at [www.powerup.com](http://www.powerup.com)**

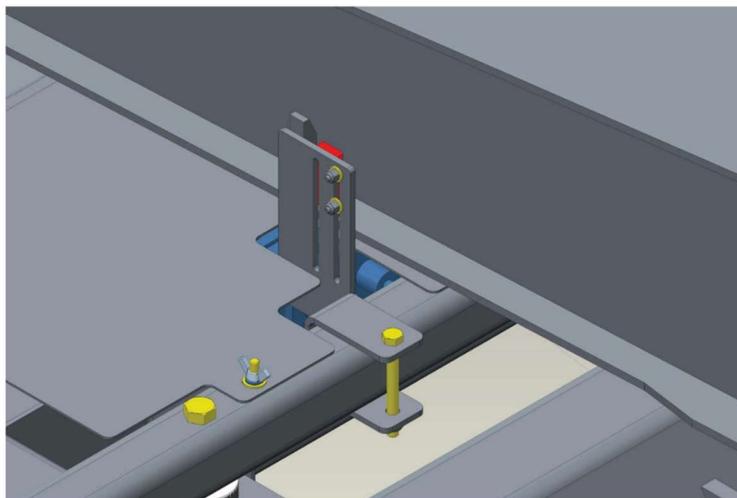


### A.3 BOOM LEVELING SENSOR INSTALLATION (cont'd)



**FIGURE A.1**

- (b) Install bracket with sensor mounted to body mounting tube as shown in Figure A.2.



**FIGURE A.2**

- (c) Adjust bracket leaving a 1/16" to 1/8" gap between boom bottom plate and guide on mounting bracket as shown in Figure A.3.



### A.3 BOOM LEVELING SENSOR INSTALLATION (cont'd)

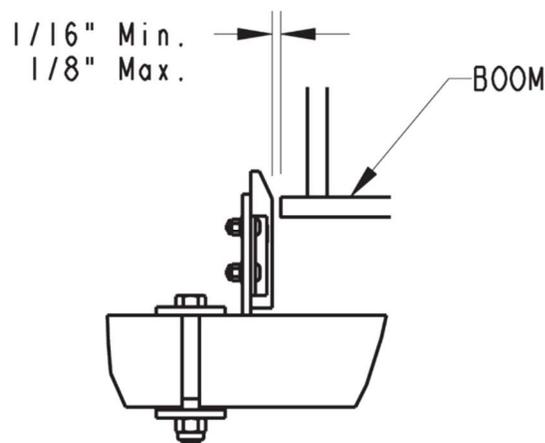


FIGURE A.3

- (d) Tighten bracket leaving the sensor loose for adjustment later.
- (e) Connect harness to sensor. (See Electrical Schematic)

### A.4 FOLD LEVELING SENSOR INSTALLATION

- (a) Install sensor in slots provided on stinger outer boom as shown in Figure A.4A or main boom as shown in Figure A.4B. (Note: DO NOT TIGHTEN)

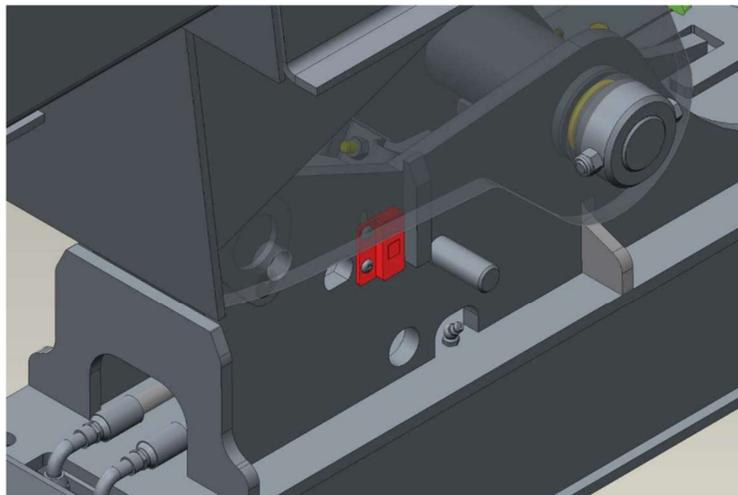
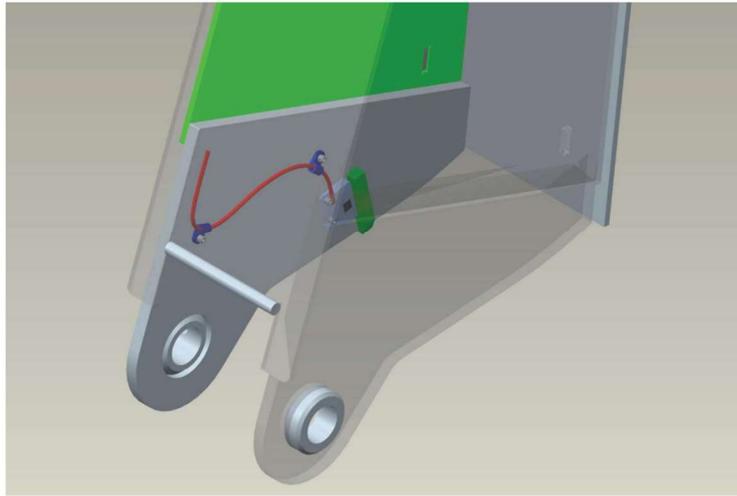


FIGURE A.4A

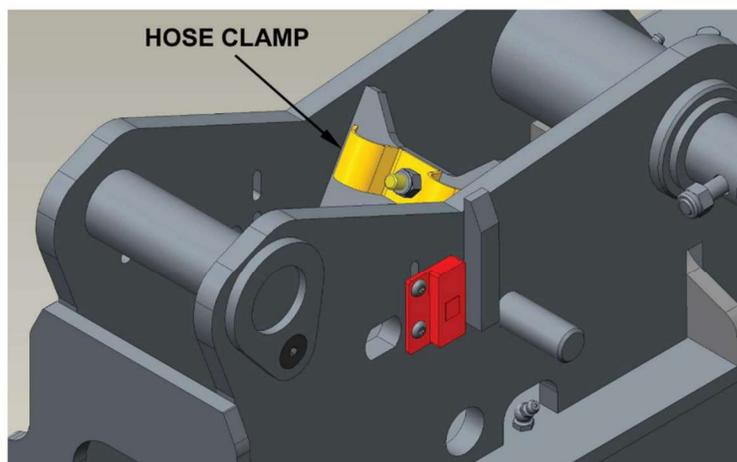


#### A.4 FOLD LEVELING SENSOR INSTALLATION (cont'd)



**FIGURE A.4B**

- (b) Connect harness to sensor. (See Electrical Schematic)
- (c) Operate fold function. Observe the harness through the entire fold movement to make sure it is not stretched or in danger of being snagged or cut. Harness should be allowed to move freely through the full fold motion. Secure harness to hose clamp as shown in Figure A.5. (Note: All excess harness length should be pulled through boom and stowed and secured under the control valve cover.)

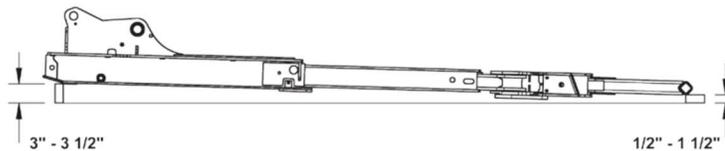


**FIGURE A.5**



## A.5 SENSOR ADJUSTMENT

- (a) Position chassis, with wrecker and body installed, on a level surface.
- (b) Lower stinger until it lays flat on the ground.
- (c) Lift heel of stinger outer boom 3 to 3-1/2" with tips of claws 1/2 to 1-1/2" off the ground, giving the stinger slight negative tilt. See Figure A.6.



**FIGURE A.6**

- (d) Slide sensors up / down in provided mounting slots until opposing flag (metal) surface passes in front of sensor magnet.
  - (1) Boom up / down sensor will be flagged by the bottom plate of boom as it passes by the sensor.
  - (2) Fold sensor will be flagged by the lower side plate of the boom as the sensor passes inside the boom.
- (e) Tighten sensors.
- (f) Operate the unit checking the height and levelness of the stinger. Re-adjust sensors as necessary.

## A.6 CONTROLLER OPERATION

After controller is installed and wiring complete as shown in the electrical schematic, turn the controller ON by pressing the red button on the controller. Pressing the button again will turn the controller OFF. This feature eliminates the need for a dash mounted switch. NOTE: The indicator light on the controller will illuminate when the controller is ON. See Figure A.7.



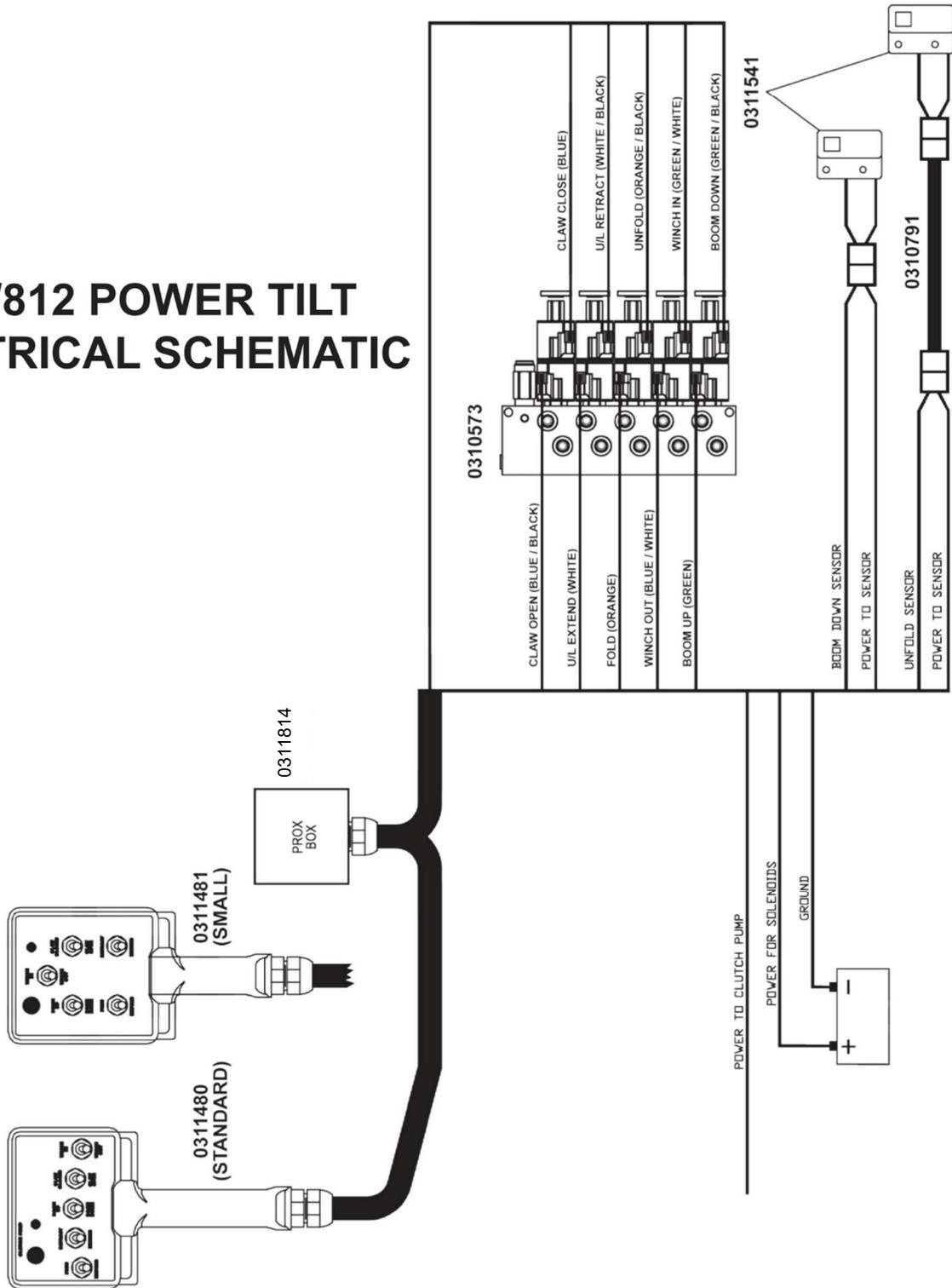
## A.6 CONTROLLER OPERATION (cont'd)



FIGURE A.7



# 810/812 POWER TILT ELECTRICAL SCHEMATIC



**Power Up Products**

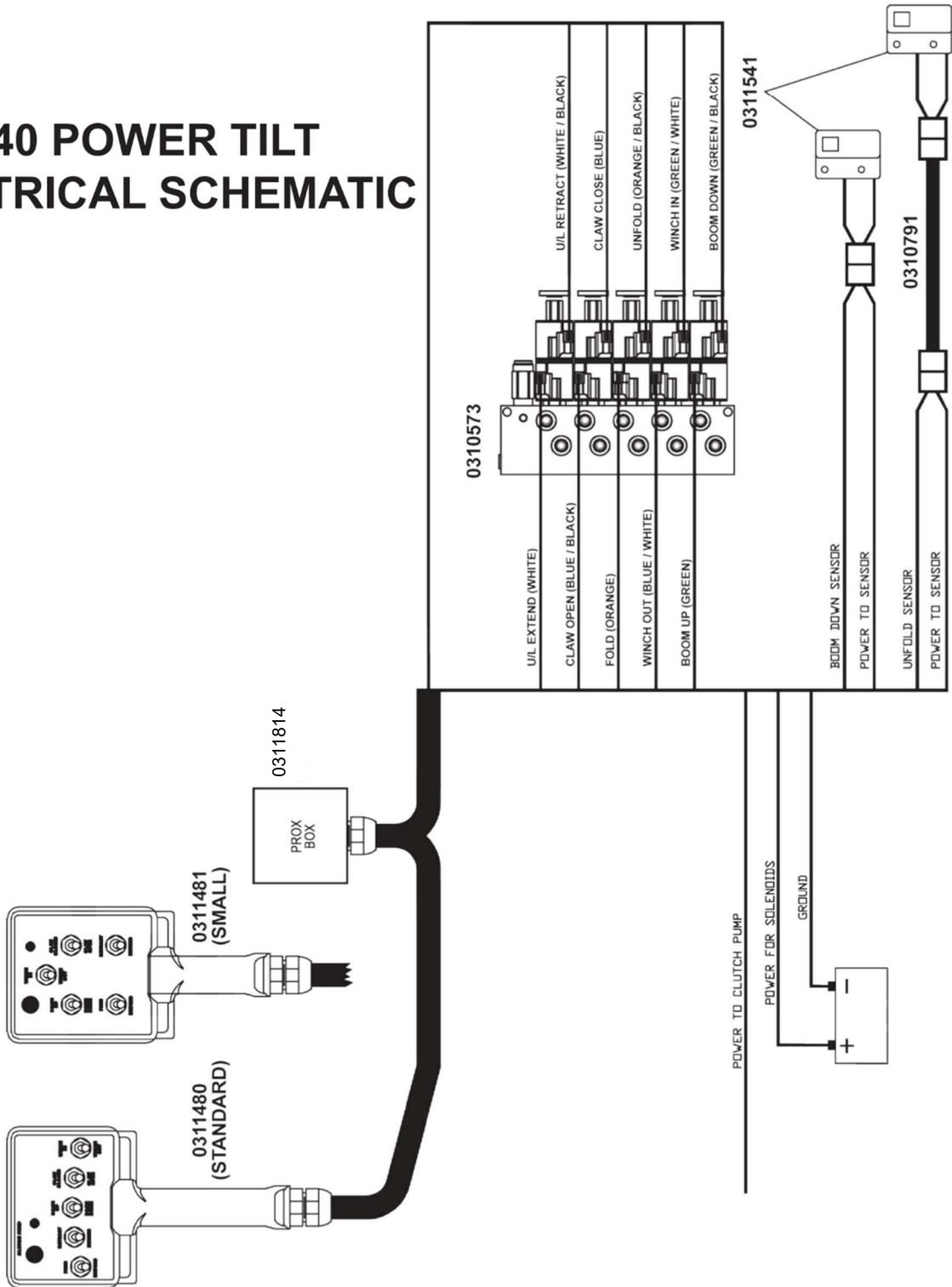
Phone: (800) 769-3749

82 Hardy Drive, Sparks, NV 89431

Order Online at [www.powerup.com](http://www.powerup.com)



# 440 POWER TILT ELECTRICAL SCHEMATIC



**Power Up Products**

Phone: (800) 769-3749

82 Hardy Drive, Sparks, NV 89431

Order Online at [www.powerup.com](http://www.powerup.com)