

Professional Service Equipment



3501 S. Leonard Rd.
P.O. Box 728
St. Joseph, Missouri 64502
U.S.A.
Toll Free: (800) 821-7320
Phone: (816) 233-6121
Fax: (816) 233-7251
Email: parts@grayusa.com
www.grayusa.com

WPLS - 160 Down Stop Solenoid Replacement

Each Gray WPLS-160 lift unit is equipped with two mechanically locking down stops. These down stops are retracted during lowering using 12-volt solenoids. The following instructions are the proper replacement procedures for the Down Stop Solenoid in Gray's Wireless Portable Lift System, Model WPLS-160. Please follow the steps outlined to properly install the down stop solenoid. If you have any questions during this process, please contact Gray Customer Service immediately.

Check to make sure that all of the following items are included in your kit prior to proceeding:

Item	Qty	Part Number	Description
1	1	936-04174	Solenoid, Encapsulated, 12 VDC
2	4	204-00701	Washer, Flat, #8, Type A
3	4	203-00501	Nut, Hex, #4 – 40 UNC, Self Locking
4	4	202-00701	Screw, Pan Head, #8 -32 UNC X .750 Long

1. Open the right hand cover. Lift the WPLS-160 by raising up on the manual override toggle and depressing the raise button to raise the lift carriage 15-inches off the floor. See Figure 1.

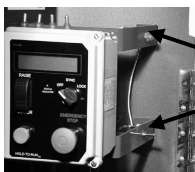


Figure 1



Figure 2

2. Open the left hand cover and turn the Main Power Switch to the OFF position. See Figure 2. This should be done before any work is performed on the lift.
3. Open the front cover and prop it up with the support rod. See Figure 3.

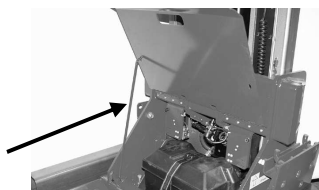


Figure 3

4. Remove the red and black wire leads connected to the down stop solenoid. See Figure 4

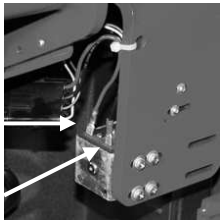


Figure 4

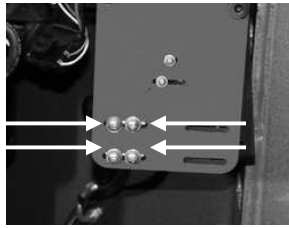


Figure 5

5. Remove the 4 screws and washers from the front of the down stop bracket. Remove the down stop solenoid. There will be a spring and washer over the plunger that is connected to the down stop. Note the orientation of these parts and be sure to re-use them during installation of the new solenoid. See Figure 5.
6. The washer and spring needs to be inserted on the plunger. Put the washer on first and follow up with the spring. The spring should be inserted so the narrow side touches the washer with the wider side contacting the solenoid. Push the plunger into the solenoid. See Figure 6

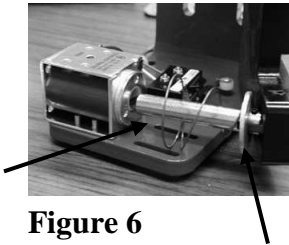


Figure 6

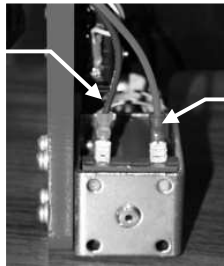


Figure 7

7. Attach the new solenoid using the same screws and washers until they are snug. Orient the solenoid terminal up. Use the same slots when re-attaching. Manually retract down stop unit it bottoms out the plunger in the solenoid. Slide the solenoid forward until down stop is flush or slightly protruding from edge of the down stop bracket.
8. Connect the red and black wire leads to the solenoid. See Figure 7
9. Check the solenoid by depressing the down stop back and forth to ensure that the plunger moves freely. If the down stop does not move freely, slightly loosen four solenoid screws and re-align solenoid with plunger until free movement, then retighten.
10. Open the left hand cover and turn the Master Power Switch to the ON position. See Figure 8
11. Close the front cover and lower the lift using the manual override toggle and opening the needle valve counter clockwise. See Figure 9. Make sure to close the needle valve by turning it clockwise. The lifts will not work properly without this valve being closed.



Figure 8

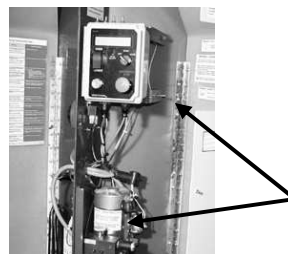


Figure 9