

Professional Service Equipment



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WPLS - 160 Holding Valve Cartridge Replacement Instructions

Each Gray WPLS-160 lift system utilizes a hydraulic holding valve to lock fluid in the cylinder and hold up the load. The following instructions are the proper replacement procedures for the Holding Valve Cartridge in Gray's Wireless Portable Lift System, Model WPLS-160. Please follow the steps outlined to properly install this cartridge. 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	918-04120	Valve, Cartridge, Solenoid Blocking, w/ DC Coil

1. Prior to performing any work, make sure that the lift carriage is lowered all the way down to prevent an abundance of hydraulic fluid loss during the cartridge replacement.
2. Open the left hand cover and make sure that the Main Power Switch is turned to the OFF position. See Figure 1

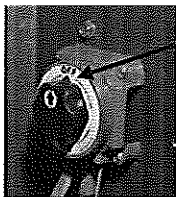


Figure 1

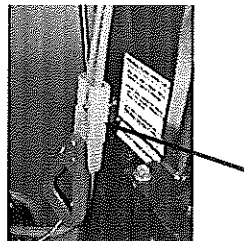


Figure 2

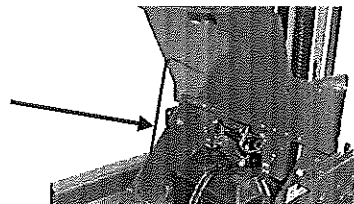


Figure 3

3. Open the left hand cover and locate the battery quick disconnect cable and separate the bottom half from the top half. See Figure 2.
4. Open the front cover and prop it up with the support rod. See Figure 3.
5. Loosen and remove the strap from the black battery box. Remove the black box containing the battery from the lift unit and set aside. Be careful, the quick disconnect handle does not fit through the hole in the base of the unit so make sure to not damage.
6. Disconnect the holding valve coil wire from the unit. See Figure 4.

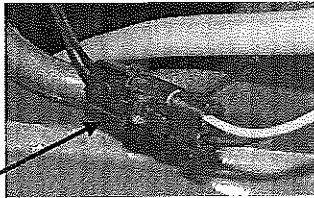


Figure 4

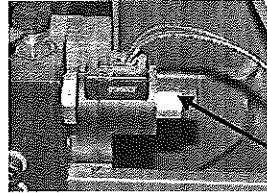


Figure 5

7. Loosen and remove the nut on the end of the holding valve cartridge. (5/8" wrench)
8. Slide the black coil off the end of the cartridge. Note orientation of coil and o-rings. See Figure 6.

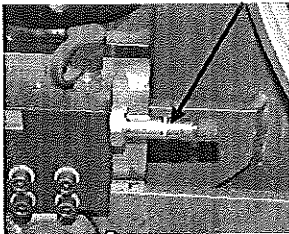


Figure 6

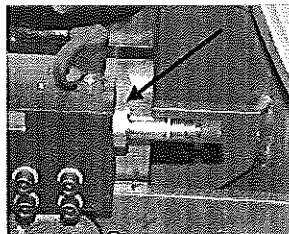


Figure 7

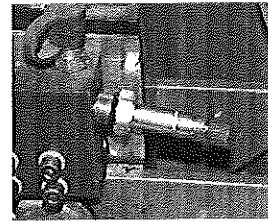
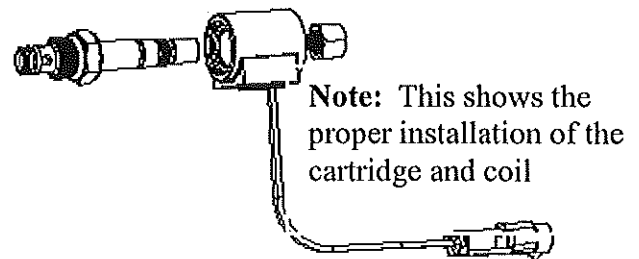


Figure 8

9. Have the new cartridge out and ready to install. Place rags or towels under cartridge to soak up excess oil. Loosen the cartridge from the holding valve block. This requires a 7/8" wrench. See Figure 7. Once this is loosened, pull the cartridge out quickly and replace. See Figure 8. Hydraulic oil will steadily leak out while doing this.



10. Tighten the cartridge to the block to **no more than 20 ft lbs.** Do not over-tighten to prevent damage to the holding valve block.
11. Install the black coil back onto the cartridge. Make sure that the coil is installed correctly, the coil wires should be up. See Figure 5.
12. Insert and tighten the nut on the end of the cartridge to **no more than 5 ft lbs.** Make sure not to over tighten. Be sure cartridge is not in released position. Push in red button and turn clockwise. The release position is in the counter clock-wise direction. See Figure 10

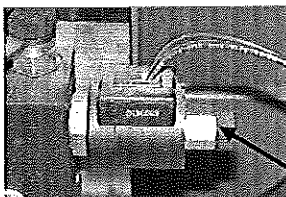


Figure 10

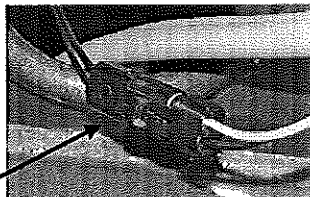


Figure 11

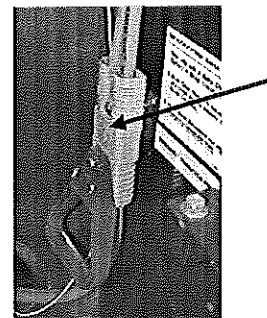


Figure 12

13. Re-connect the coil wires with the lift unit. See Figure 11. Clean up any oil spillage.

14. Place the black battery box back into the lift carriage and tighten the strap. Re-connect the battery cable. See Figure 12.
15. Close the front cover.
16. Open the right hand cover and locate the hydraulic oil reservoir. See Figure 13. Check the hydraulic oil in the reservoir by unscrewing the black oil fill plug and looking at the dipstick to ensure the oil level is okay. If not, add hydraulic oil to the reservoir. We recommend that you add a high-grade hydraulic fluid equivalent to Tellus T22 so the oil level just covers the dipstick.

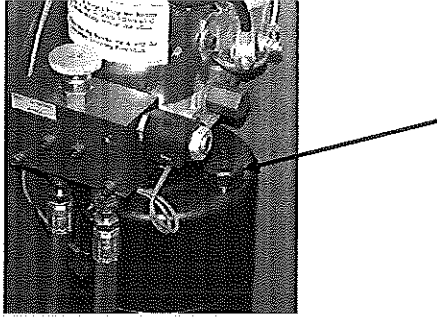


Figure 13

17. Close all covers.