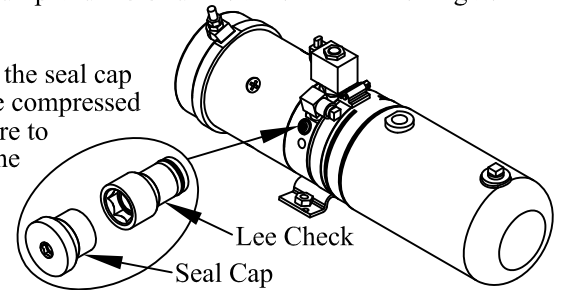
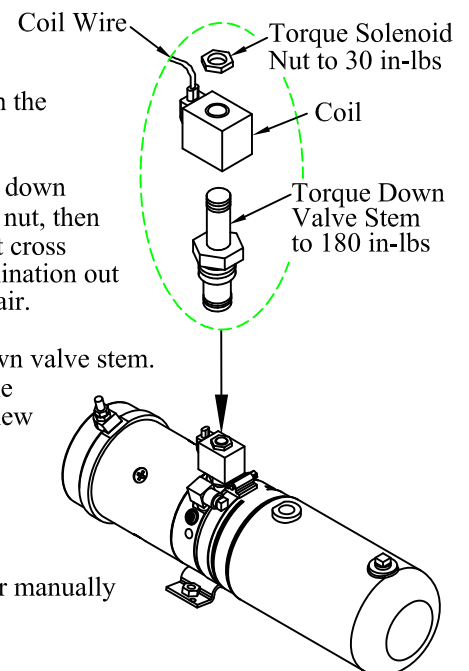


- Step 1. Keep body parts out of the mainframe during operation. Lower the platform to the ground and remove the box cover.
- Step 2. To avoid risk of a 12 volt electrical short, disconnect the #4 power cable from the positive side of the battery or manually trip the circuit breaker.
- Step 3. The pump and motor unit must be removed from the mainframe (Original Series only). Follow the pump and motor unit replacement / removal instructions in the service manual. The pump and motor unit can remain in the liftgate mainframe on Railgate and G2 series.
- Step 4. The Lee check is located below the hydraulic elbow or tee. Remove the seal cap with a 3/16" allen wrench to gain access to the Lee check valve. Use compressed air to blow any dirt or contamination out of the threaded hole. Be sure to wear eye protection when using compressed air. Carefully remove the the Lee check valve assembly with a 5/16" allen wrench. Use caution when removing the Lee check such that you do not cross thread the aluminum housing. Use compressed air to blow any further dirt or contamination out of the threaded hole.
- Step 5. Generously lubricate the aluminum housing threads, the o-ring on the Lee check, and the o-ring on the seal cap. Carefully install the new Lee check valve assembly being careful not to cross thread the aluminum housing. Torque the Lee check valve assembly to 50 ft-lbs. Reinstall the seal cap and torque to 50 ft-lbs.
- Step 6. **Original Series Only**
Reinstall the pump and motor unit in the mainframe. Tighten the pump and motor mounting bolts to 30 ft-lbs. Carefully route the electrical wiring harness to avoid pinching, abrasion, or wear areas. Use plastic ties as needed.
- Step 7. Reconnect the liftgate's main power cable to the positive side of the battery or manually engage the circuit breaker.
- Step 8. Test the liftgate for proper operation and check for hydraulic oil leaks.
- Step 9. Reinstall the box cover on the mainframe.



**MONARCH DOWN VALVE REPLACEMENT-
ORIGINAL SERIES, RAILGATE SERIES, AND G2 SERIES**

- Step 1. Keep body parts out of the mainframe during operation. Lower the platform to the ground and remove the box cover.
- Step 2. To avoid risk of a 12 volt electrical short, disconnect the #4 power cable from the positive side of the battery or manually trip the circuit breaker.
- Step 3. The down valve is located on top of the pump and motor unit. To remove the down valve assembly, cut the coil wire by the butt connector. Remove the solenoid nut, then the solenoid coil. Carefully remove the down valve stem such that you do not cross thread the aluminum housing. Use compressed air to blow any dirt or contamination out of the threaded hole. Be sure to wear eye protection when using compressed air.
- Step 4. Generously lubricate the aluminum housing threads and the o-ring on the down valve stem. Carefully install the new down valve stem being careful not to cross thread the aluminum housing. Torque the down valve stem to 180 in-lbs. Reinstall the new coil and nut. Torque nut to 30 in-lbs.
- Step 5. Reconnect the coil wire to the lower wire using the supplied heat shrink butt connector. Use a heat gun to shrink the connector.
- Step 6. Reconnect the liftgate's main power cable to the positive side of the battery or manually engage the circuit breaker.
- Step 7. Test the liftgate for proper operation and check for hydraulic oil leaks.
- Step 8. Reinstall the box cover on the mainframe.



DO NOT OVER TIGHTEN

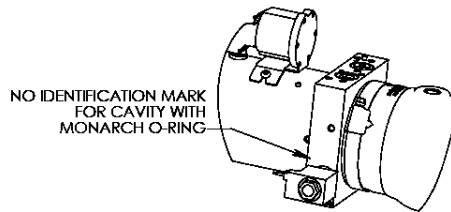
Over tightening of the release solenoid assembly will damage solenoid and cause internal hydraulic leakage.

Bucher Hydraulics North America (Monarch Hydraulics)
Valve Cavity / O-ring Identification and Compatibility
Size 8, 2-Way, 2-Position Valves

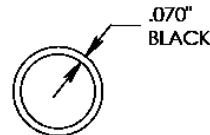
1. Majority of units manufactured prior to 2010

Typically manufactured with "Monarch-style" valve cavity, identifiable by:

- a) Cavity without identification mark



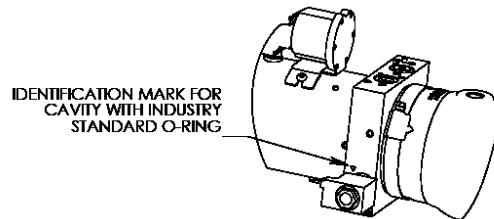
- b) Black O-ring, typically size 2-016 with .070" cross-section



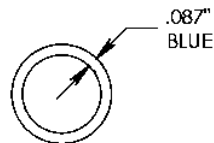
2. Majority of units manufactured in 2010 and beyond

Typically manufactured with "Industry standard" valve cavity, identifiable by:

- a) Cavity with identification mark – Greek letter delta (triangle) Δ



- b) Blue or black O-ring, size 3-908 with .087" cross-section



3. Valve replacement

- a) Cavity and O-ring must be matched correctly for proper sealing function, the rest of the valve is the same. If necessary, replace O-ring with the proper O-ring to match the valve cavity.
b) Monarch-style cavity requires size 2-016 O-ring
c) Industry standard cavity requires size 3-908 O-ring