Suspension Controls

INSTALLATION INSTRUCTIONS

650 Series
Height Control Valve
1/4” PTC FITTINGS
(H00650)

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QUESTIONS?
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SERVICE
1-800-222-6283

H18255 Rev B
10/21/21

IMPORTANT: IT IS IMPORTANT THAT THE ENTIRE INSTALLATION INSTRUCTIONS BE READ THOROUGHLY BEFORE PROCEEDING WITH THE INSTALLATION.

1. INTRODUCTION

Thank you for choosing a Link Suspension Control. We want to help you get the best results from this height control valve and to operate it safely. This instruction contains information to assist in the installation of the Height Control Valve. This instruction is intended solely for use with this product.

All information in this instruction is based on the latest information available at the time of printing. Link Manufacturing reserves the right to change its products or manuals at any time without notice.

Damaged components should be returned to Link with a pre-arranged Returned Materials Authorization (RMA) number through the Customer Service Department. The damaged component may then be replaced if in compliance with warranty conditions.

2. SAFETY SYMBOLS, TORQUE SYMBOL, and NOTES

⚠ DANGER	**DANGER indicates a hazardous situation which if not avoided, will result in death or serious injury.**
⚠ WARNING	**WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.**
⚠ CAUTION	**CAUTION indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.**
NOTICE	***NOTICE* indicates a potentially hazardous situation which, if not avoided, may result in property damage.**
TORQUE	***TORQUE* indicates named fasteners are to be tightened to a specified torque value.**
NOTE:	**A Note provides information or suggestions that help you correctly perform a task.**

3. SAFE WORKING PRACTICES

⚠ CAUTION

When handling parts, wear appropriate gloves, eyeglasses, ear protection, and other safety equipment.

⚠ CAUTION

Proper tightening of fasteners is important to the performance and safety of the suspension. Follow all torque specifications throughout the instructions.

4. PARTS INCLUDED

Part No.	Description	Qty.
H18426	Lever, 2.26” With .12 Offset	1
H18206	Mounting Stud M6 x 1 High Corrosion	1
H16661	¼” PTC Plug	1
H18107	Ball Stud, 10 mm	1
H18207	Nylock Nut M6 x 1 High Corrosion	2
H18255	650 Series Installation Instructions	1

Figure 1.

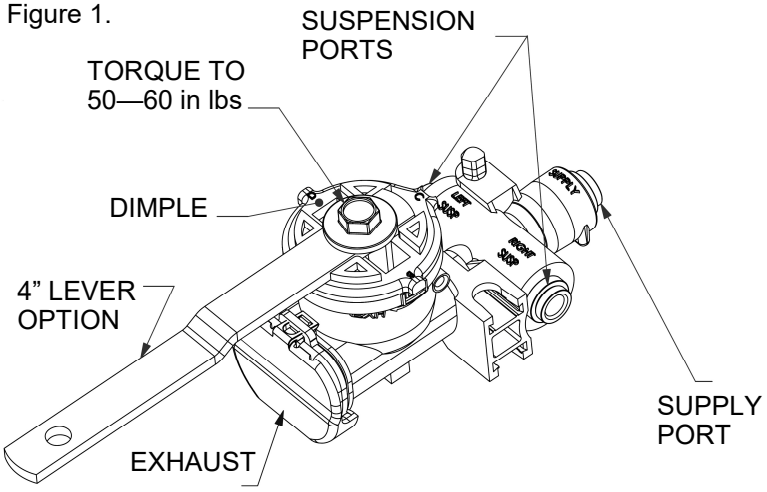
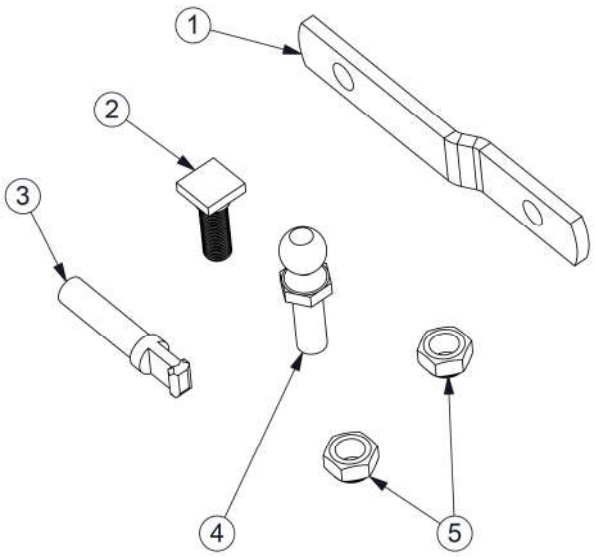


Figure 2.



5. DETERMINE MOUNTING AND VALVE ORIENTATION

5.1
Hold 650 HCV next to height control valve to be replaced and determine mounting orientation of the 650 HCV for best hose routings.

5.2
Determine location of the new valve mounting stud and proper lever length.

6. DETERMINE FILL AND EXHAUST ORIENTATION

6.1
Each side of the 650 HCV has arrows pointing toward the fill and exhaust directions. Please note the fill & exhaust arrows operate in the opposite directions depending on the orientation of the valve (See figure 6).

6.2
Align the dimple on the spindle in between fill and exhaust arrows on either side to find the neutral or zero position before installing the lever.

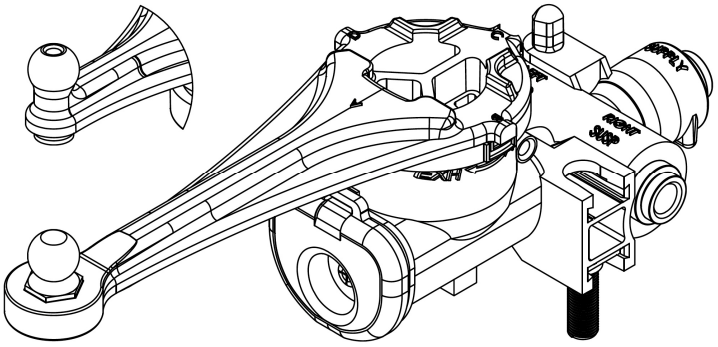


Figure 4a—650 SERIES EXAMPLE TO BE REPLACED

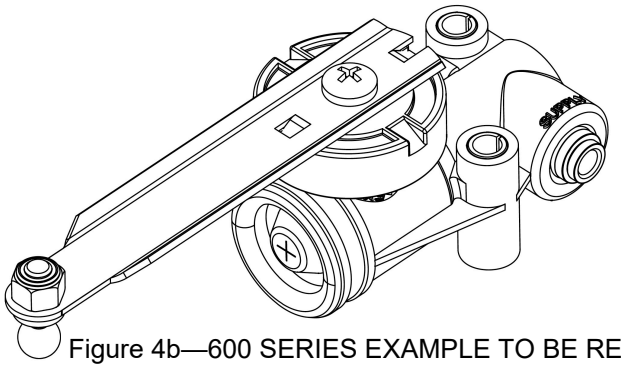


Figure 4b—600 SERIES EXAMPLE TO BE REPLACED

Figure 5.

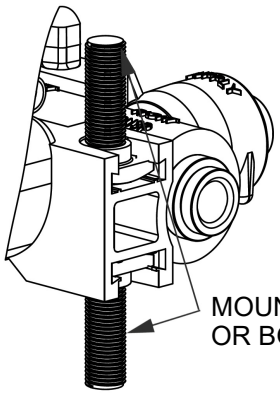
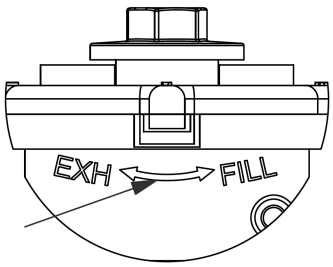
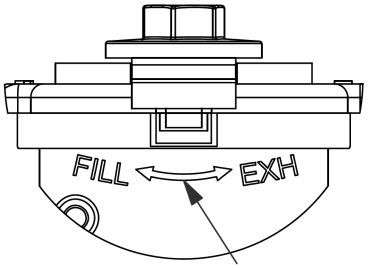


Figure 5.

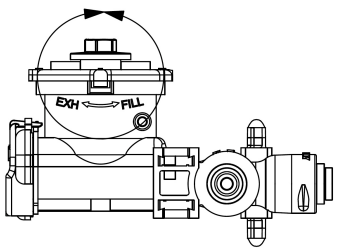
Figure 3.

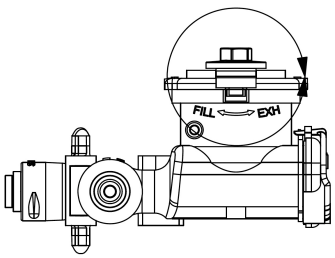


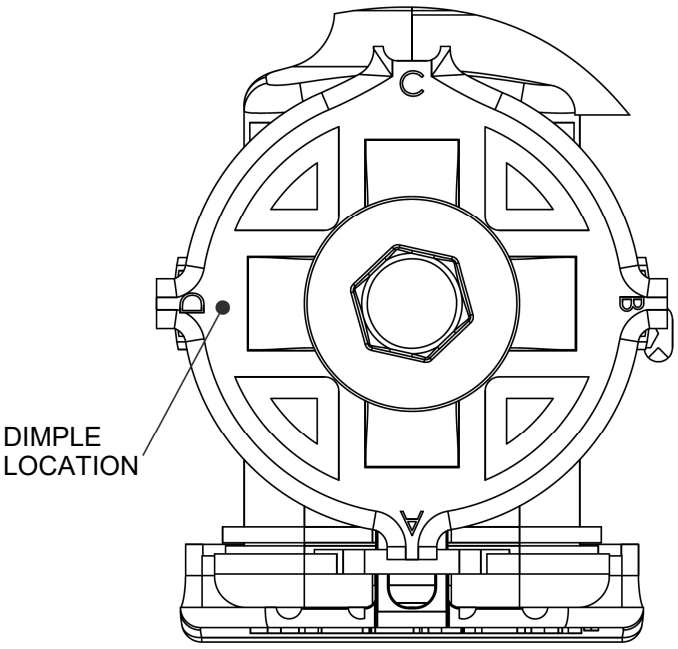
WHEN DIMPLE IS LOCATED ON THE RIGHT SIDE OF VALVE THE FILL/EXHAUST WILL BE IN THIS ORIENTATION.



WHEN DIMPLE IS LOCATED ON THE LEFT SIDE OF VALVE THE FILL/EXHAUST WILL BE IN THIS ORIENTATION.





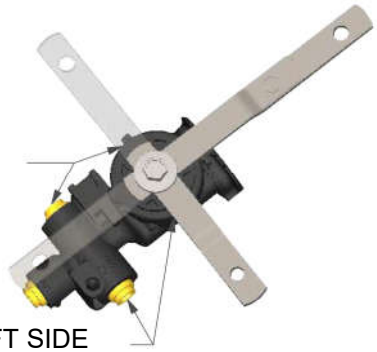


7. ASSEMBLE 650 HCV

7.1
Install the correct lever onto the valve to match old height control valve orientation and lever length. The lever can be mounted in one of four directions.

7.2
Tighten screw to 50 – 60 in lbs.

Figure 11.



7.3
Install mounting studs into the T-slots. Use a hammer and screwdriver to tap square head into the T-slot if needed.

7.4
Install ball stud in option required, & tighten nut to 60 – 80 lbs.

Figure 12.

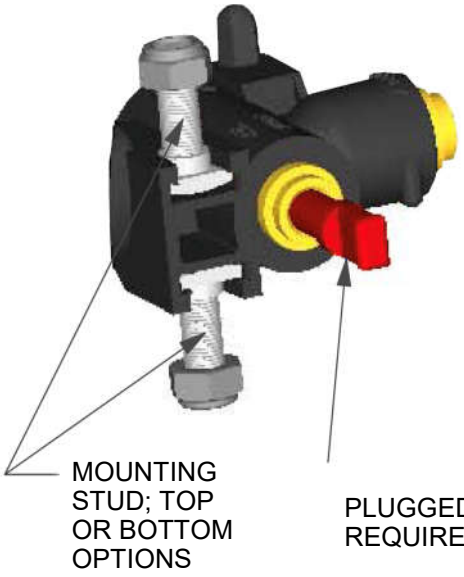
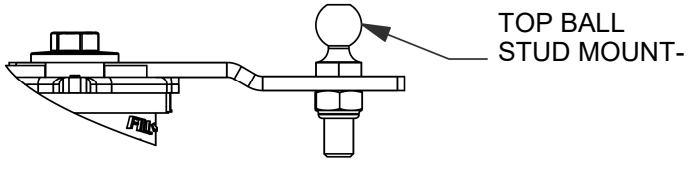
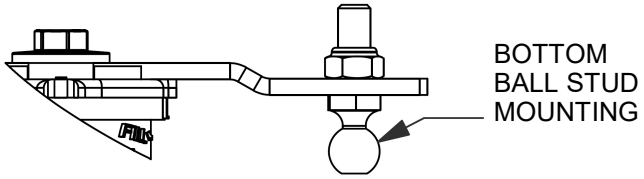


Figure 12.





8. INSTALL 650 HCV

8.1
Remove old height control valve and note the hoses and ports.

8.2
Attach 650 HCV to mounting bracket and tighten nut to 60 -80 in lbs.

8.3
Attach hoses into the proper ports by pushing the tubes into the push-to-connect (PTC) fittings. Use the plug included in this kit if only one suspension port is required. **Make sure hoses do not interfere with lever rotation.**

9. RIDE HEIGHT ADJUSTMENT

9.1
Note: Check the vehicle manufacture's ride height recommendations for correct ride height.

9.2
Reconnect linkage to end of lever and allow valve to air up to ride height.

9.3
Measure ride height.

9.4
Readjust ride height per vehicle manufacture instructions.

9.5
Double check the ride height measurement by exhausting air from the suspension and allowing the 650 HCV to air up to the ride height (disconnect and reconnect the linkage).

9.6
Remeasure ride height and adjust if necessary.

10. HCV TEST PROCEDURE

1. With minimum of 90 psi at the supply port, rotate the lever up (as indicated on the side of the valve 30^{o} to 45^{o}. Air should flow into the air springs.
2. Rotate the lever to the neutral position. Air flow should stop.
3. Rotate the lever down 30^{o} to 45^{o}. Air should exhaust from the air springs.
4. Rotate the lever to the neutral position. Air flow should stop.
5. If valve fails to flow air or shut off as specified, replace with a new one.

11. REASONS TO REPLACE THE HCV

1. HCV did not pass the test procedure
2. Air leaks form the HCV
3. HCV is damaged

12. TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE
Air springs flat	-Obstructed air line -Insufficient air pressure to suspension -Defective Pressure Protection Valve -Defective HCV (see test procedure) -Air leak in system -Lever/Dimple located incorrectly
Air springs raise to full height but do not exhaust	-Obstructed air line -Supply line installed in suspension port -Lever/Dimple located incorrectly -Defective HCV (see test procedure)
Air springs deflate when parked	-Leak in air system (check with soapy water) -Defective HCV (see test procedure)
Suspension will not maintain proper height	-Obstructed air line -Ride height out of adjustment -Defective HCV (see test procedure)
Hard ride	-Ride height out of adjustment (readjust per vehicle service manual)

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