

**Suspension  
Controls**

**LINK<sup>®</sup>**

# INSTALLATION INSTRUCTIONS

## 500 Series Height Control Valve

H00500



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**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

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

## 3. SAFE WORKING PRACTICES

### CAUTION

When handling parts, wear appropriate gloves, eye-glasses, 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. SAFE WORKING PRACTICES

### CAUTION

#### 4.1

Air lines are pressurized and may blow debris, USE EYE PROTECTION.

## 5. VEHICLE PREPARATION

#### 5.1

Park the unloaded vehicle on a level surface.

#### 5.2

Securely block the tires.

#### 5.3

Drain all air from surge tank and air springs.

**NOTE:** Wear safety glasses when releasing pressurized air

#### 5.4

Clean area around the height control valve.

#### 5.5

Identify and label hoses connected to the height control valve (HCV).

## 6. REMOVE OLD HCV AND HARDWARE

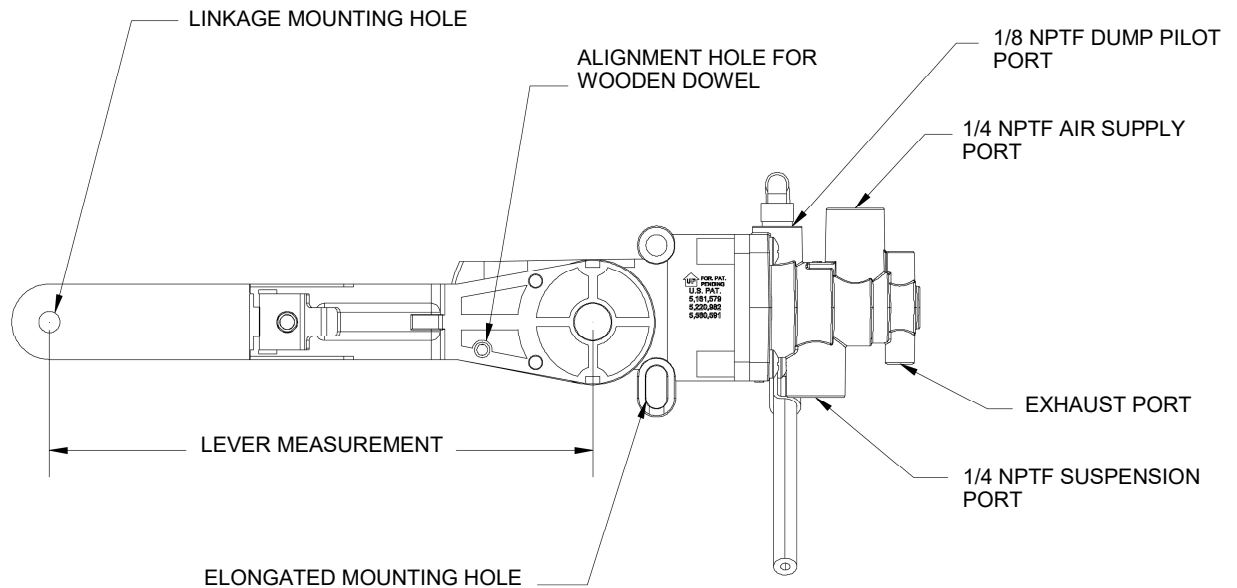
#### 6.1

Remove old HCV from the mounting bracket.

#### 6.2

Measure the lever length from the lever pivot to the linkage connection.

Figure 1.



## 7. H00500 HCV LEVER SELECTION

### 7.1

Select the H00500 HCV lever which is nearest the length of the old HCV lever (see drawing for how to measure lever length on the 500 HCV).

## 8. H00500 HCV BRACKET SELECTION

### 8.1

Use mounting bracket which will allow the linkage to be vertical  $\pm 5^\circ$ .

### 8.2

Move HCV or bottom link mount if needed to attain vertical  $\pm 5^\circ$ .

### 8.3

Make sure the lever and linkage are free of obstructions during extreme lever travel.

## 9. H00500 HCV MOUNTING

### 9.1

Mount the valve so that the elongated mounting hole is down.

### 9.2

Torque bolts to 60-80 in lbs.

### 9.3

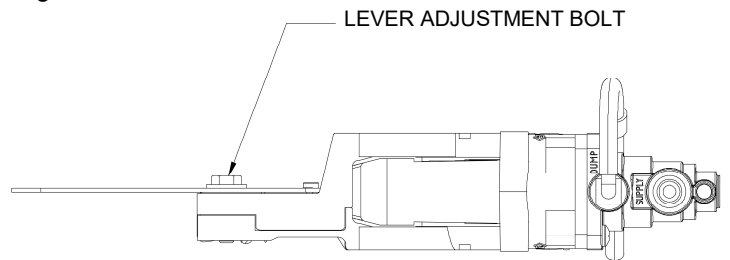
Use flat washer between bolt head (or nut) and valve casting.

## 10. H00500 HCV DUMP CONNECTION

### 10.1

The H00500 HCV is set-up to be used without the dump. If the dump pilot port is not used, skip to step 7. DO NOT REMOVE BARBED FITTING AND HOSE OR PLUG PORT.

Figure 2.



#### NOTES:

1. 60-80 IN-LBS. FOR ALL 14-20 NUTS AND BOLTS.
2. MOUNT VALVE WITH 1/4 DIAMETER BOLTS.

Figure 3.

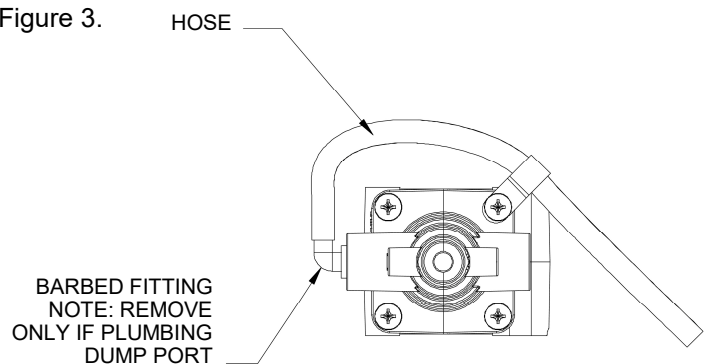
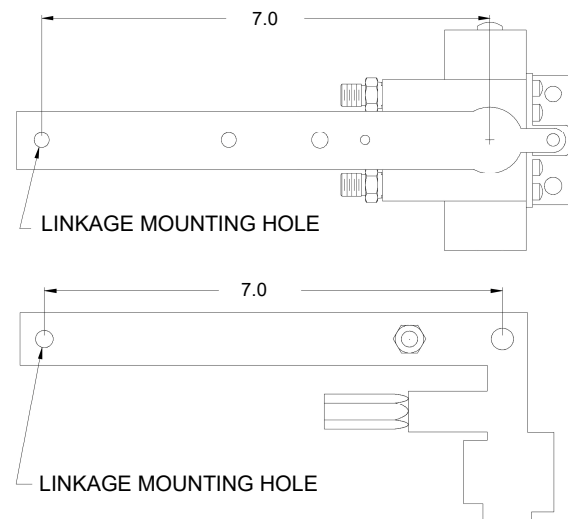


Figure 4.



## 10.2

If the dump option is to be installed on a truck without a dump system, purchase the Link Dump Kit (HPB500-3). The Dump Kit includes the following:

- Dash Toggle Valve
- Dash Name Plate
- Finger Guard
- Warning Light

## 10.3

How to add the dump option:

- Attach tractor air supply to the three-way valve inlet air port ("IN").
- Attach three-way valve outlet air port ("OUT") to the pilot port of the H00500 HCV.

**NOTE:** H00500 Dump port requires air pressure to operate dump.

**NOTE:** Do not plug the vent port of the three-way valve.

## 11. H00500 HCV HCV FITTING AND HOSE SELECTION

### 11.1

Purchase fittings which will provide easy hose attachment and will not kink hoses.

### 11.2

1/4" OR 3/8" OD hose can be used. For quicker fill and dump air flow, use 3/8" OD hose from the supply air tank to the H00500 HCV and 3/8" OD hose from the HCV to the air bags.

### 11.3

Attach hoses to ports as shown on 500 HCV drawing (i.e. air supply to supply port, air bags to suspension port).

**NOTE:** Do not apply pipe dope or tape to bottom 2 threads.

## 12. H00500 HCV LINKAGE ADJUSTMENT

### 12.1

Refill vehicle air system.

### 12.2

Raise suspension to ride height by rotating HCV lever 30° up (allow up to 6 seconds for air to flow). Return lever to center position when ride height is attained.

### 12.3

Insert wooden centering dowel into the alignment hole and engage in housing slot.

### 12.4

Measure the centerline of the lever link hole to the centerline of the bottom link mount hole.

## 12.5

When using the Link linkage kit (HPB450-3), subtract 1 5/8" from the above measurement and cut the rod to that length. Assemble the linkage.

## 12.6

Attach bottom rod end to link mount.

## 12.7

Remove wooden centering dowel.

## 12.8

Fill suspension to maximum extension and block suspension.

**NOTE:** DO NOT FILL AIR SPRINGS TO MAXIMUM AIR PRESSURE.

## 12.9

Attach the linkage to the lever.

- If the linkage doesn't attach, a longer lever is needed and/or a different mounting location is needed.
- If the linkage does attach, the lever angle must be less than 45°, but not less than 30°. If the lever angle is greater than 45°, a longer lever is needed and/or a different mounting location is needed.

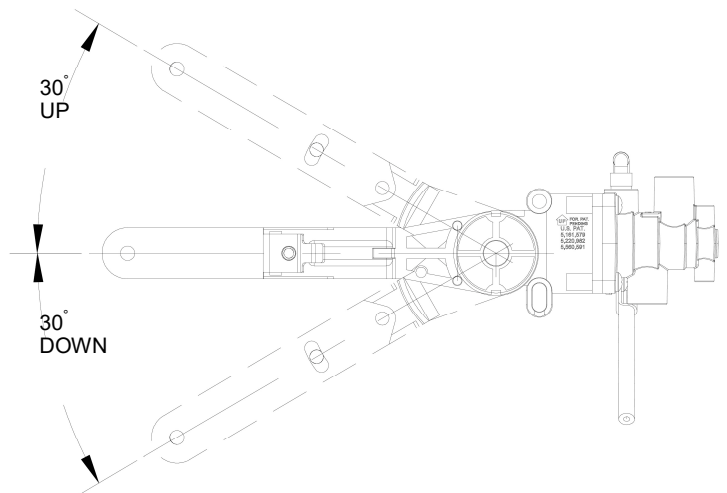
## 12.10

Remove blocks from suspension.

## 12.11

Drain all air from surge tank and air springs.

Figure 5.



## 12.12

Recheck the linkage connection with the suspension at maximum extension.

## 13. RIDE HEIGHT ADJUSTMENT

### 13.1

Refill vehicle air system and allow system to return to specified ride height.

### 13.2

Measure the ride height and adjust the lever as required. Recheck the ride height by exhausting suspension and reattaching linkage.

### 13.3

If the dump option is not installed, installation is complete.

## 14. TEST DUMP OPERATION

### 14.1

Set the three-way air valve to the dump position. The air should drain from the air springs.

### 14.2

Set the three-way air valve to the normal operating position. The suspension should return to normal ride height.

## 15. ADDITIONAL PARTS

### 15.1

**NOTE:** The following additional parts may be required

- 1/4" bolts, washers and nuts
- 1/4" or 3/8" OD Nylon air line
- 1/4" or 3/8" Hose fittings for 1/4-18 NPTF OR 1/8-27 NPTF ports
- Linkage kit
- Dump accessories (see step 10)

