



## KOTR Replacement Valve Installation For Ridewell Applications

***For Part Description and Package Contents see last page***

### ***Removal of Old Valve***

**Caution:** Removal of a height control/leveling valve must be undertaken only by strictly following the vehicle or equipment manufacturer's service manual. The valve controls the air spring height and if precautions are not taken to properly block the vehicle or equipment in position, the suspended load can suddenly drop enough to cause injury or death.

Remove the valve following the vehicle manufacturer's instructions. Remove the control link if it shows evidence of damage or deterioration of the rubber ends.

### ***Inspection***

Before beginning the installation of a new Valve check all air line tubing, fittings, air shocks or springs and other components that are tied into the air system. Inspect for cuts, punctures or other damage that may cause an air leak or not allow the HCV to not function properly. Repair any problems before continuing with installation.

Inspect the HCV Control Link. Make sure that the rubber bushings are still flexible; if not, replace the Control Link when installing the HCV.

### ***Preparation***

Clean the surface where the HCV will mount. Make sure that dirt and debris are removed from the mounting holes. Preventing dirt from entering the HCV will ensure a long trouble free life from your new HCV.

If compression fittings were used it may be necessary to cut the old air line to remove the compression ferrule and nut, this may make the air line too short for the new installation. Replace any air lines that are too short to be routed properly.

The Valves are equipped with Push-to-connect fittings for ¼" Tubing. Push the outer ring in and insert the tubing until it is all the way into the fitting. Then release the outer ring to seal.

**Note:** Do not use thread sealant on any of the air line fittings. It is not required for a proper seal and can cause the HCV to malfunction if the sealant enters the HCV or other system components.

### ***Mounting Options***

Each Valve comes with a pre-assembled Adapter Plate to mount the Valve directly into the Ridewell mounting holes (horizontal pattern) so that no drilling is required. Note that the Plate can be rotated 180 degrees if the Valve needs to be mounted in a higher position.

On some older models the Ridewell Valves were installed using (vertical pattern) mounting holes to make the Ridewell valve mounting pattern match the KOTR/Delco valve pattern. In this case, the Adapter Plate is unnecessary and should be removed before installing the new valve. Just remove the two Flat head screws and nuts and discard with the Adapter Plate.

If for any reason the two mounting methods above do not work it will be necessary to drill two holes to mount the new valve – please see the drilling template on the last page. Standard mounting hardware is included with the valve kit. If you are replacing the control link with an adjustable link, use the old link as a guide to set the length of the new link (see link instructions). We recommend Kwik-Link<sup>®</sup> adjustable replacement links for all installations.

## ***Installation***

Attach the HCV in the original mounting location for the old valve (see note in previous section concerning the adapter plate). Tighten the two bolts and nuts.

Connect the control link to the valve arm using the supplied Mounting Bolt and Locknut. It is especially important to use the locknut with the "P" style Connector linkage that is unsupported (no steel sleeve in the center of the rubber) so that the Nut will not vibrate loose.

Tighten the attaching bolt and nut. Connect the other end of the Control Link to its mounting bracket or stud.

Referring to Figure 1, Page 3, connect the air spring air line to the top port on the KOTR Valve. Connect the supply air to the bottom port on the KOTR Valve (this port is next to the black exhaust tubing). Tighten the two air line fittings to 50-60 in-lb (5.5-6.5 N-M).

**Note:** Do not loosen the lock nut on the HCV control Arm as it is factory preset.

**Caution:** Before proceeding, refer to the vehicle or equipment manufacturer's instructions for pressurizing the height control system after a valve replacement. Sudden changes in height are possible if the correct procedures are not followed.

Pressurize the air system to normal operating pressures. Check air line connections using a soap-water solution and watch for bubbles which would indicate an air leak. If bubbles are present gently tighten the air line fitting until the bubbles stop. Do not use any type of sealant to stop leaks.

## ***Height Adjustment***

Check the equipment height per the equipment manufacturer's instructions and recommended height specification.

### **If adjustment is required:**

#### **For Fixed Length Control Links**

Loosen the Lock Nut on the side of the HCV Control Arm using a 7/16" hex wrench. Move the Lever Arm up to increase the height and down to reduce the height. Tighten Lock Nut to 70-80 in-lbs (8-9 N-M) and re-check the height. If it is necessary to make height adjustments greater than that allowed by the adjustment built into the valve overtravel mechanism, it will be necessary to change to a different length link.

#### **For Adjustable Length Control Links**

Do not loosen the Lock Nut on the HCV control Arm as it is factory preset. Follow the Control Link manufacturer's instructions to adjust the Control Link, which will then change the height of the vehicle or equipment.

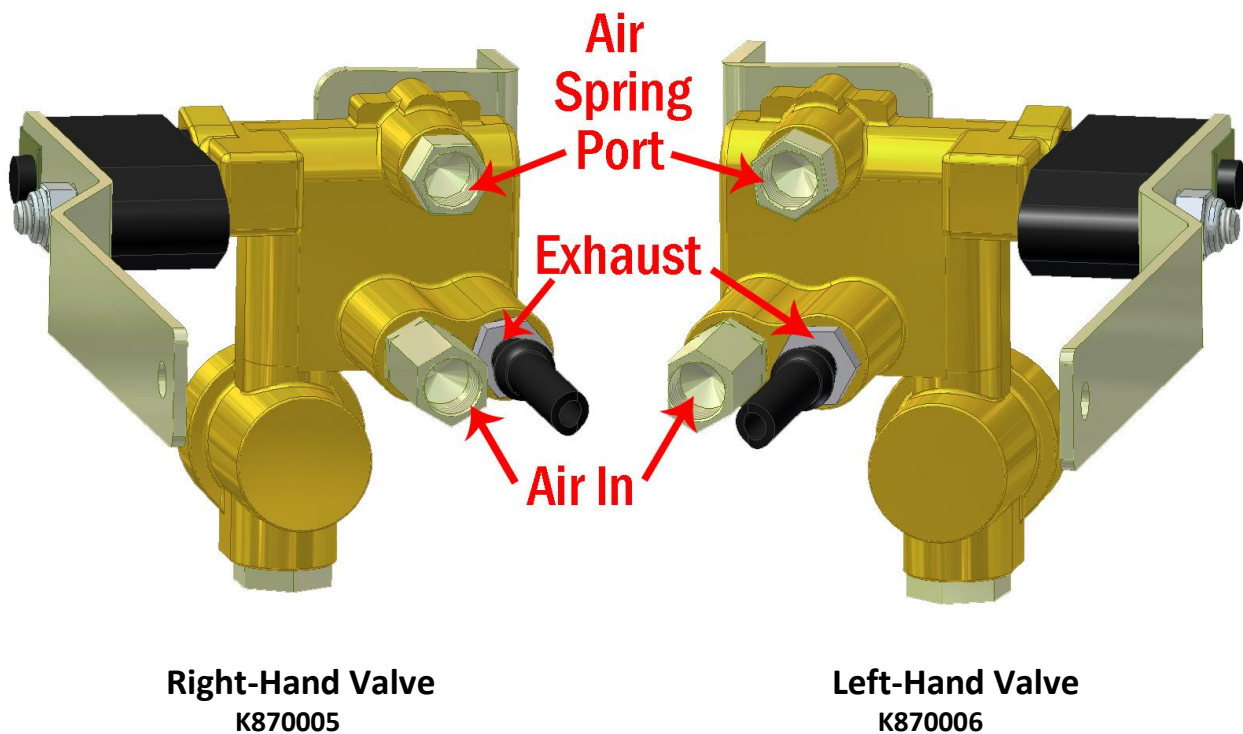
Adjustment instructions for the Kwik-Link adjustable length Linkage is supplied in its package or online at [www.levelingvalve.com](http://www.levelingvalve.com).

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### *Air Fitting Connections*

**Notes:** 1) Either valve can be used for Front (single valve) applications. Verify which Valve is appropriate for your application before ordering.

2) If both ports of the Ridewell valve were used (typically for Front Valve applications), you may need a Union Tee to connect the two air spring lines. We offer this Tee Union as KOTR part number K060013. It is not supplied with either Valve.



**Figure 1**

(Shown without Adapter Plate)

**Package Contents:**

**K870005 Height Control Valve Assembly (RH)**

Description: RH Height Control Valve with minimum dead-band and standard delay 1/4" Push to connect Tube fittings and Ridewell Mounting Bracket. Package includes:

Height Control Valve RH (1)

Mounting Bolt and Locknut (2)

Link Connecting Bolt and Locknut (1)

**K870006 Height Control Valve Assembly (LH)**

Description: LH Height Control Valve with minimum dead-band and standard delay 1/4" Push to connect Tube fittings and Ridewell Mounting Bracket. Package includes:

Height Control Valve Left Hand (1)

Mounting Bolt and Locknut (2)

**Link Connecting Bolt and Locknut (1)**

**Drilling Template for Ridewell Applications**

