



INSTALLATION INSTRUCTIONS FOR CBOVHKITMCK01



SALCO PRODUCTS, INC.

PDP2.02.2 - Rev 3

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Document #: CBOVHKITMCK01_II

Revision 0; 08/03/2017

TOOLS NEEDED

- ½” drill with a portable drill press attachment (ie. Rapidrill)
- Cutting fluid for drilling
- 11/16” drill bits (1/4” bits for a pilot)
- Reciprocating saw
- 15/16” socket and wrench, 1/2" socket and wrench
- File, center punch, angle grinder, black spray paint (for touchups to skid plate), contrasting spray paint (for marking holes)
- Drill fixture (Salco provided)
- Standard 5/8”-11 CS nuts (for temporary bolt-up of handle to verify fitup)





REMOVE HANDLE

Verify that the valve is in the fully closed position. Remove the spring pin holding the handle to the valve stem. Cut off the bracket that locks the handle in place using a reciprocating saw. Slide the handle out and remove.



REMOVE HANDLE SUPPORT

Cut off the two brackets that support the old handle using a reciprocating saw. Keep the cuts as close to the reinforcement pads as you can while avoiding cutting into the welds. Round over any sharp edges with a hand file. Touch up the exposed metal with black spray paint to inhibit rust.



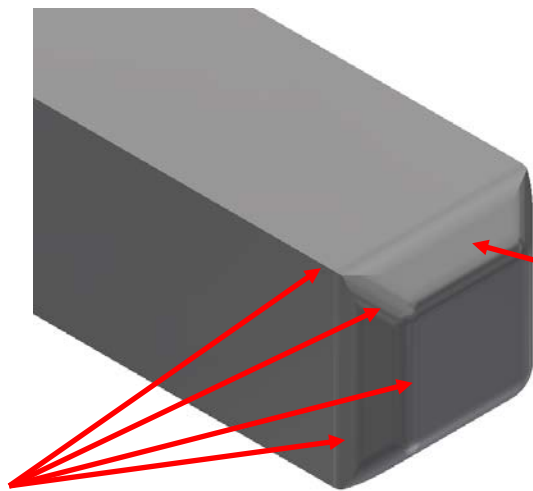
MARK HOLES FOR BRACKET

Slide the drilling fixture onto the valve stem, and press it flat against the face of the skid. Mark the three holes for the bracket using contrasting spray paint. Use a center punch to mark the center of the holes. Start each hole with a 1/4" pilot hole, followed up with the 11/16" drill bit. Touch up the exposed metal with black spray paint to inhibit rust.



ATTACH THE ADAPTER

Install the adapter (B45567) onto the valve stem. Be sure to place the spring (A45837) inside the adapter before installation. Install the bolt (HB516225S) into the adapter temporarily to keep the spring compressed. Measure from the outside face of the skid plate 1-1/2" along the adapter. Make a mark on the square portion of the adapter.



**1/8"-1/4" X 45° CHAMFER
ALL FOUR SIDES**

**ROUND OVER ALL OF
THESE EDGES TO AVOID
'CATCH POINTS'
(ALL FOUR SIDES)**

CUT ADAPTER AND CHAMFER

Away from the car, cut the adapter at the mark using an angle grinder. Keep the cut as square as possible. Use the grinder to add a 1/8"-1/4" X 45° chamfer on the four sides of the cut end. Round over all of the corners on that end as best as possible to avoid having any edges to catch on.



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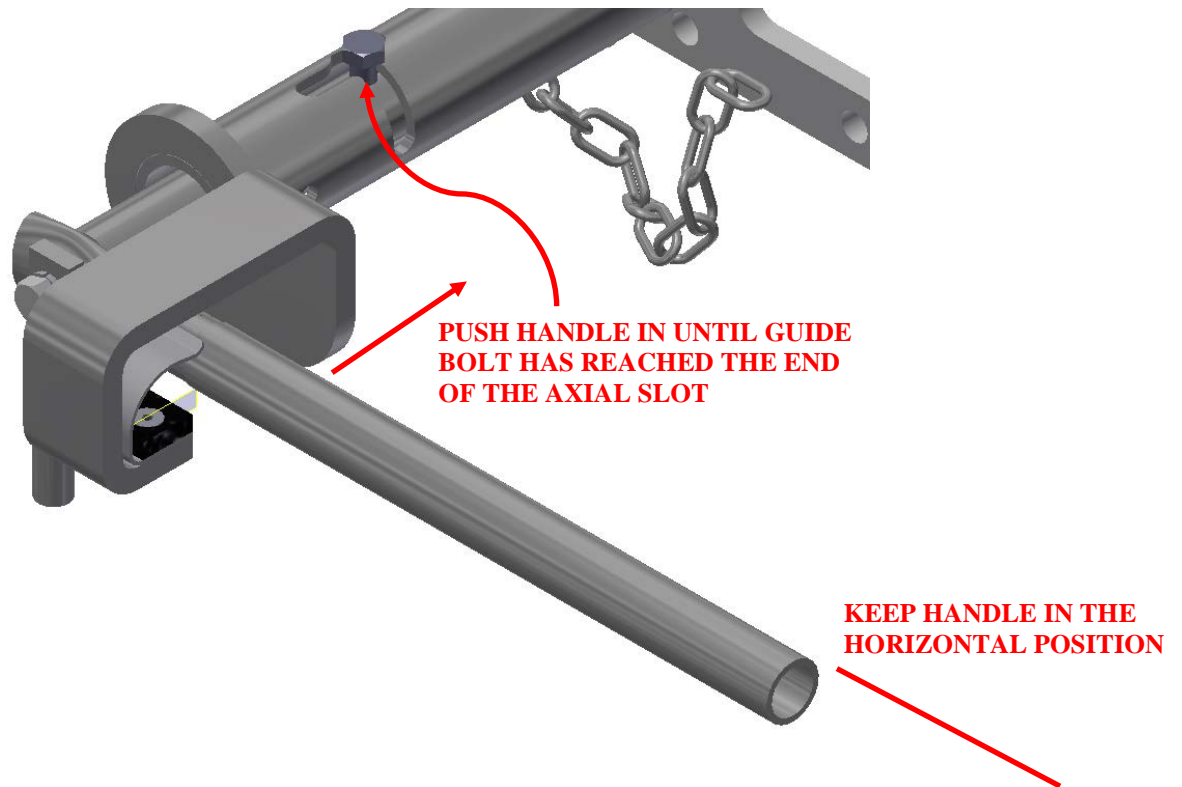
Revision 0; 08/03/2017



INSTALL ADAPTER

Install the adapter (B45567) onto the valve stem. Be sure to place the spring (A45837) inside the adapter before installation. Compress the spring and install the bolt (HB516225S) into the adapter. Secure the bolt (tool tight) using the supplied Nylon lock nut (EA103DN).





INSTALL THE HANDLE ASSEMBLY

Press the handle in until the guide bolt has reached the end of the axial slot. Keep the handle in the horizontal position. Bring the handle assembly to the car and insert the adapter into the pocket of the handle shaft. Press the handle assembly flat against the face of the skid. Keep the handle pressed in to ensure that the shaft stays aligned with the adapter.



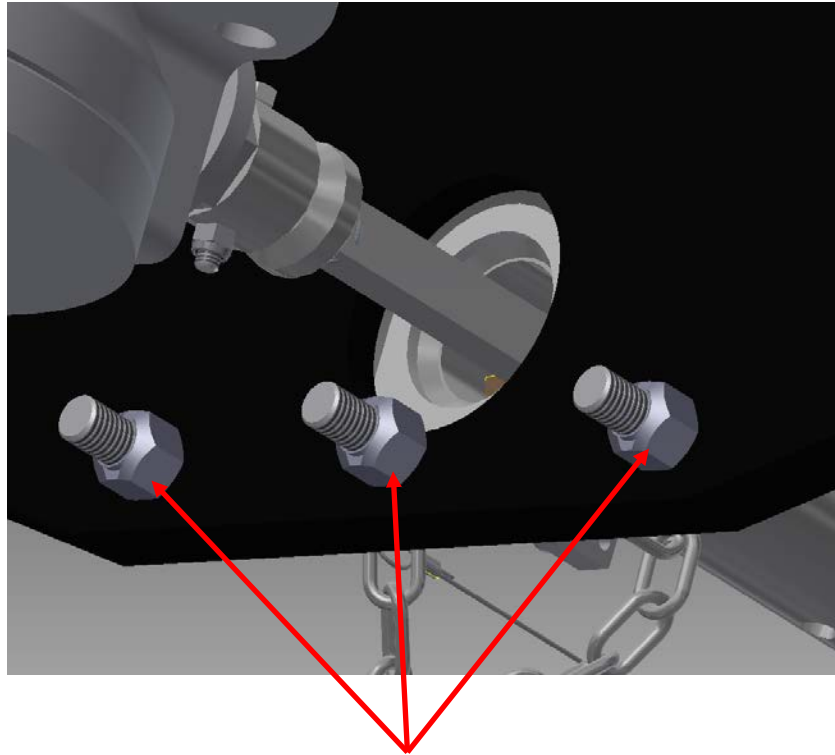
BOLT THE HANDLE ASSEMBLY IN PLACE

Install the three 5/8" bolts (GA20B) into the handle assembly. Secure the handle using standard, non-locking 5/8" nuts for the time being.



CYCLE THE HANDLE

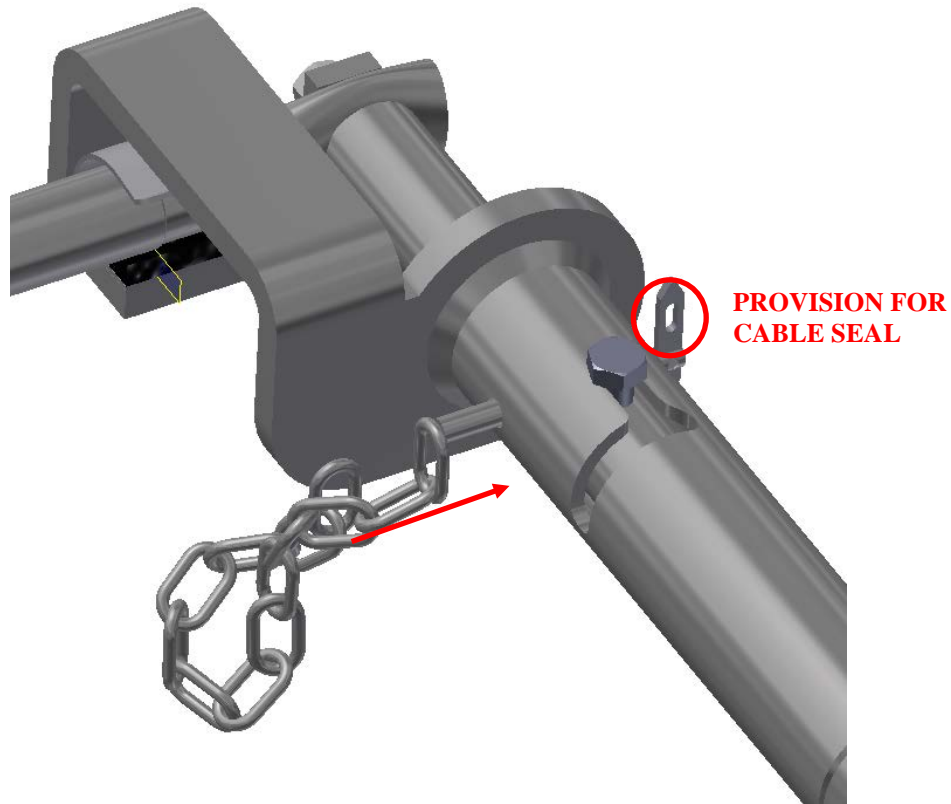
Cycle the handle several times in and out to ensure that the handle shaft and the adapter are properly aligned. If you experience resistance from the two rubbing, try loosening the three 5/8” nuts, adjusting the location of the handle bracket, and retightening. If the resistance persists, you may need to look at the chamfers and radii on the end of the adapter and make any further relief as needed.



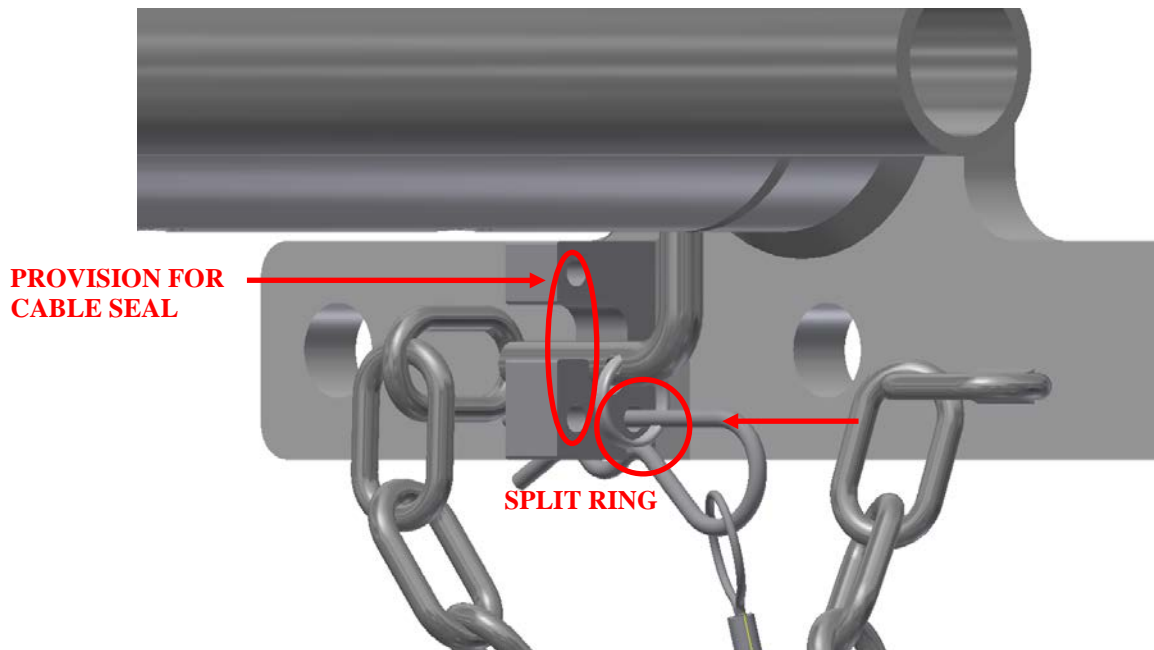
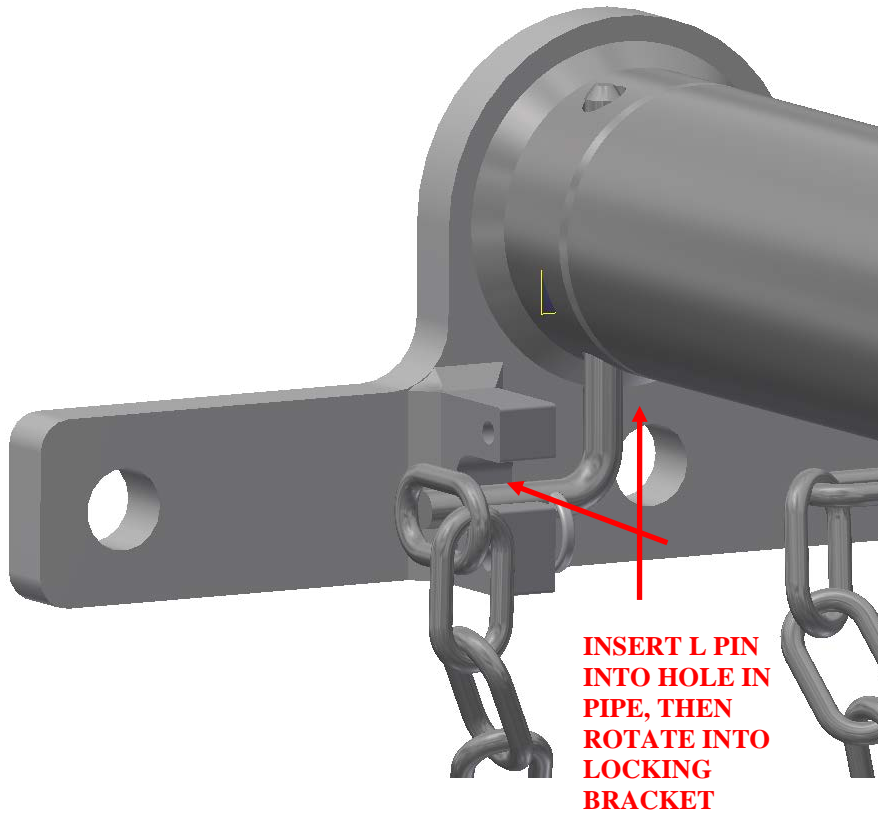
REPLACE 5/8" NUTS

Once the handle operates freely, replace the standard 5/8" nuts with the lock nuts included with the kit (LN77802). It is recommended that the nuts be replaced one at a time to avoid affecting the adjustments that were made to the alignment of the shaft and adapter.

HANDLE SECUREMENT



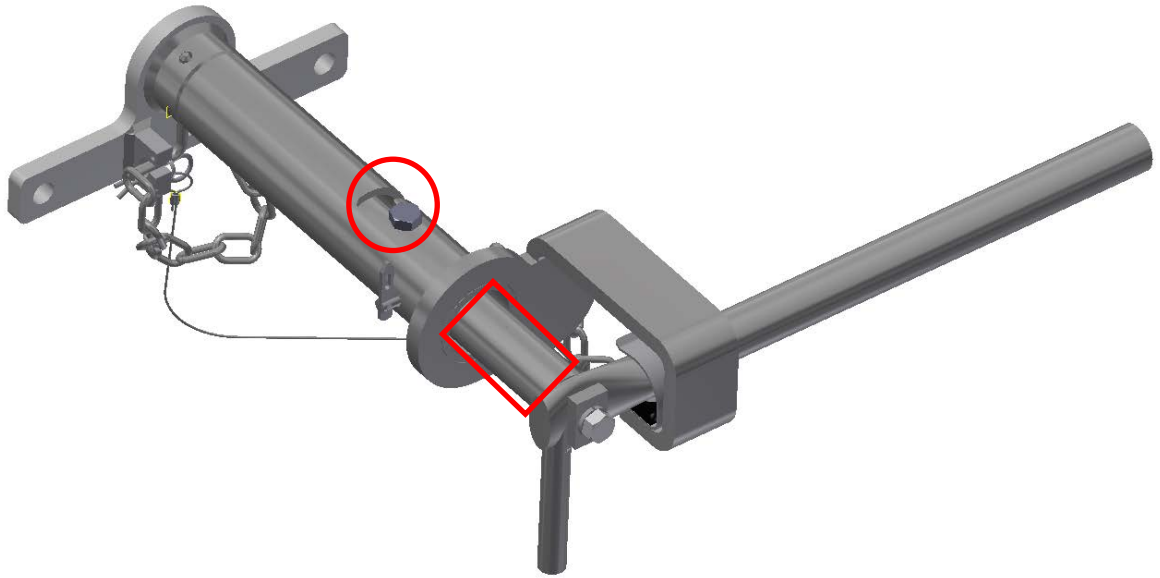
With the handle disengaged, slide the seal pin through the handle and shaft. This will prevent someone from being able to engage the shaft with the adapter. A cable seal can be installed through the eyelet of the seal pin flapper and around the pipe of the handle for tamper evidence.



With the handle disengaged, slide the L seal pin through the hole in the underside of the pipe near the base plate. Rotate the pin into the locking bracket. Slide the hairpin through the split ring (attached to the L pin) and into the rear hole at the bottom of the locking bracket. This hairpin will prevent the L pin from vibrating out of the locking bracket. The L pin is intended to prevent the adapter from rotating. This will prevent the valve from accidentally vibrating open or an individual from opening the valve with a wrench. A cable seal can be installed through the two front holes of the locking bracket for tamper evidence.



PAINING GUIDELINES



The axial slot, radial slot, and guide bolt should be masked prior to painting. Also, the exposed portion of the shaft, and well as the pocket area where the adapter engages the shaft are to be masked to avoid gumming up the handle operation. Do not paint the adapter.