ULTRARIDE®
BARKSDALE VALVE KIT
(Link Part No. 800M0197)

PROUDLY INSTALLED BY:

COMPANY: __________________________________________

INSTALLER SIGNATURE: ______________________________

DATE: _____________________

INSTALLATION GUIDE
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1. INTRODUCTION

IMPORTANT! It is important that the entire installation instructions be read thoroughly before proceeding with valve installation. It is important that the proper Appendix be referenced in connection with the original Link® UltraRide® application.

IMPORTANT! It is important that Lever assembly and orientation to the Height Control Valve be followed to ensure correct operation of Link® UltraRide® suspension.

IMPORTANT! Installation may require a modification of the Valve Linkage included in the kit to fit the intended application.

INTENDED USES

- This kit is intended for use in adding a second Height Control Valve to a Link® UltraRide® suspension which contains only a single Valve. Review the section showing the Air line routing using a 2 valve system to ensure proper connection of the air lines to the Air Control System.
- It can also be used in retrofitting an older UltraRide® suspensions that use a different Height Control Valve.

PRODUCT INSTALLER RESPONSIBILITIES

- Installer is responsible for installing the product in accordance with Link Mfg. specifications and installation instructions.
- Installer is responsible for providing proper vehicle components and attachments as well as required or necessary clearance for suspension components, axles, wheels, tires, and other vehicle components to ensure a safe and sound installation and operation.
- Installer is responsible for advising the owner of proper use, service and maintenance required by the product and for supplying maintenance and other instruction as readily available from Link Mfg.

INSTALLATION NOTES:

- Proper tightening of fasteners is required for proper operation. Need for proper Torque value is indicated by wrench symbol and values will be found in Torque table below. Failure to maintain proper torque may cause component failure resulting in accident or injury.
- Thread sealant should be used on any and all fittings that do not have thread sealant pre-applied.

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>FASTENER</th>
<th>TORQUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALVE MOUNTING</td>
<td>1/4 UNC NUTS</td>
<td>35-45 IN-LBS</td>
</tr>
<tr>
<td>RETROFITTING VALVE BRACKET</td>
<td>1/4 UNC NUTS</td>
<td>35-45 IN-LBS</td>
</tr>
<tr>
<td>PIVOT BALL</td>
<td>1/4 UNC NUTS</td>
<td>35-45 IN-LBS</td>
</tr>
<tr>
<td>LINKAGE</td>
<td>1/4 UNC NUTS</td>
<td>HAND TIGHT + 30° TO 60°</td>
</tr>
<tr>
<td>PIPE FITTINGS</td>
<td>1/4&quot; NPT Fittings</td>
<td>HAND TIGHT + 270° TO 450°</td>
</tr>
</tbody>
</table>
2. AIR LINE ROUTING SCHEMATICS

IMPORTANT! When connecting the airline during an installation the following procedure should be used to ensure proper airline function.
1. Be sure fitting and airline are free of debris and airline is cut squarely.
2. Insert tubing into fitting until it bottoms out.
3. Pull on tubing to ensure airline is properly attached.
4. Push in on tubing again to ensure full insertion.
5. Pull on tubing a second time to ensure proper attachment.

IMPORTANT! Thread sealant should be used on fittings without pre-applied thread sealant. Failure to properly apply thread sealant will result in air system leaks and reduced system performance and/or failure.

Figure 2-1 shows the layout of the Barksdale valve, Air Control system Solenoid, Fittings & Airline connections for a single HCV system.

Plumbing Diagram for Single Barksdale Height Control Valve

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FIG. 2-1
Figure 2-2 shows the layout of 2 Barksdale valves, Fittings & Airline connections for a Dual HCV system.
### BARKSDALE VALVE KIT PARTS LIST

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>13010064</td>
<td>VALVE-CONTROL, HEIGHT</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>13020090</td>
<td>AIRLINE-NYLON, .250 O.D., BULK</td>
<td>20 FT</td>
</tr>
<tr>
<td>2</td>
<td>13022077</td>
<td>AIR FTG / PLUG (1/4 NPT)</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>13025091</td>
<td>ELBOW, 1/4 TB 1/4 M-NPT, PUSH-IN DOT</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>13025563</td>
<td>UNION TEE, 1/4 TB, PUSH-IN</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>13029974</td>
<td>MUFFLER-EXHAUST, 1/4 M-NPT</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>13025046</td>
<td>CONNECTOR, 1/4 TB 1/4 M-NPT</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>14080808</td>
<td>1/4 X 1 UNC HEX CAP SCR (GR 5)</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>14700800</td>
<td>1/4 UNC HEX NUT (GR B)</td>
<td>6</td>
</tr>
<tr>
<td>9</td>
<td>14850800</td>
<td>1/4 LOCK WASHER</td>
<td>6</td>
</tr>
<tr>
<td>10</td>
<td>15000224</td>
<td>BALL-PIVOT, THREADED</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>15000271</td>
<td>LINKAGE-VALVE, HEIGHT CONTROL (7.13)</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>15000327</td>
<td>LINKAGE-VALVE, HEIGHT CONTROL, BARKSDALE</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>15000435</td>
<td>0.25 CORRUGATED LOOM, BULK</td>
<td>20 FT</td>
</tr>
<tr>
<td>13</td>
<td>80002113</td>
<td>BRACKET-MOUNT, HCV (For use with 8M000035)</td>
<td>1</td>
</tr>
</tbody>
</table>
NOTE: In all 4 possible orientations, the inlet port always points up on the vehicle and the exhaust port points down.

The C1 and C2 ports can both be connected to the air spring. When only one port is used, the other must be plugged.
5. VALVE LINKAGE APPLICATION CHART

IMPORTANT! Refer to modification procedure and table below for correct dimension and orientation of the linkage for intended application.

LINKAGE MODIFICATION PROCEDURE:
1. Remove Latching Ball Joint and Hex Nut from one end of linkage assembly.
2. Cut off excess threaded rod for intended application.
3. Replace Hex Nut and Latching Ball Joint onto linkage assembly.
4. Set center to center distance between Latching Ball Joints according to chart in the correct orientation.
5. Tighten Hex Nut against Latching Ball Joint to lock orientation and length.

<table>
<thead>
<tr>
<th>Base Suspension</th>
<th>Threaded Linkage Part #</th>
<th>Rubber-End Linkage Part #</th>
<th>Center to center Dimension</th>
<th>Threaded rod length (cut rod to length)</th>
<th>Ball Joint Orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>8M000035</td>
<td>15000246</td>
<td></td>
<td>4.000</td>
<td>3.000</td>
<td>180°</td>
</tr>
<tr>
<td>8M000063</td>
<td>15000231</td>
<td></td>
<td>2.120</td>
<td>1.120</td>
<td>180°</td>
</tr>
<tr>
<td>8M000070</td>
<td>15000264</td>
<td>150000327</td>
<td>6.250</td>
<td>5.250</td>
<td>90°</td>
</tr>
<tr>
<td>8M000075</td>
<td>15000270</td>
<td>150000327</td>
<td>7.000</td>
<td>6.000</td>
<td>90°</td>
</tr>
<tr>
<td>8M000078</td>
<td>15000271</td>
<td>150000327</td>
<td>7.130</td>
<td>6.130</td>
<td>90°</td>
</tr>
<tr>
<td>8M000080</td>
<td>15000271</td>
<td>150000327</td>
<td>7.130</td>
<td>6.130</td>
<td>90°</td>
</tr>
<tr>
<td>8M000085</td>
<td>15000262</td>
<td>150000327</td>
<td>6.000</td>
<td>5.000</td>
<td>90°</td>
</tr>
</tbody>
</table>
APPENDIX A
FOR FORD F450/550 PARALLELOGRAM ULTRARIDE®
PART NO. 8M000035

DRIVER’S SIDE VALVE ASSEMBLY
USE ORIENTATION #3 (SEE PAGE 7)

PLUG C2 PORT
APPLY THREAD
SEALANT

TO AIR SPRING

INLET PORT

DUMP PORT

EXHAUST MUFFLER

PASSENGER’S SIDE VALVE ASSEMBLY
USE ORIENTATION #4 (SEE PAGE 7)

PLUG C1 PORT
APPLY THREAD
SEALANT

TO AIR SPRING

INLET PORT

DUMP PORT

EXHAUST MUFFLER

80002113
MOUNT BRACKET

DRILL NEW 1/4" HOLE IN
ARM 3.5" FROM PREVIOUS
HOLE IF NEEDED

80002113
MOUNT BRACKET

DRILL NEW 1/4" HOLE IN
ARM 3.5" FROM PREVIOUS
HOLE IF NEEDED
APPENDIX B
FOR GMC 4500/5500 ULTRARIDE®
8M000070, 8M000075, 8M000078, 8M000080, 8M000085, 8M000087

Note: Valve Mount Brackets for 8M000087 are shown. Valve Mount Brackets for other suspension part numbers will have slightly different appearance, but Valve orientation / operation will be the same.

DRIVER’S SIDE VALVE ASSEMBLY
USE ORIENTATION #1 (SEE PAGE 7)

PASSENGER’S SIDE VALVE ASSEMBLY
USE ORIENTATION #2 (SEE PAGE 7)