

**Link**® **UltraRide**®  
Chassis Air Suspension

**GM C4500/C5500 4X2 &  
16,000-19,500 GVW RANGE**

**2006-NEWER MODELS**

DANA MODEL 80 (11K), & S110 (13.5K) REAR AXLE

*Link Part No. 8M000105*

081017  
80002201

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**Please read this manual before operating you UltraRide® suspension and keep it for future reference.**



223 15th Street N.E.  
Sioux Center, Iowa 51250

For questions with your UltraRide suspension, please contact us toll free at (800) 222-6283

Visit [www.LinkMfg.com](http://www.LinkMfg.com)

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## Congratulations on your new UltraRide!

Thank you for choosing the Link UltraRide chassis air suspension for your vehicle. When properly installed, UltraRide will substantially improve ride and handling in your medium duty vehicle. With no lubrication required and only periodic maintenance as indicated in this manual, your new UltraRide suspension will provide you with many miles of reliable, trouble free service.

In the unlikely event of a suspension malfunction between regular vehicle maintenance intervals, immediate corrective action should be taken to prevent further suspension damage. Our website, [www.linkmfg.com/ultraride/urdealers.html](http://www.linkmfg.com/ultraride/urdealers.html) will help you locate a Link dealer near you.

### SAFETY

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#### **Warning symbols in this guide**

Instructions that when not followed can result in injury to yourself or others or damage to the vehicle are highlighted by the warning triangle symbol. These comments should be read and observed.

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## OPERATION

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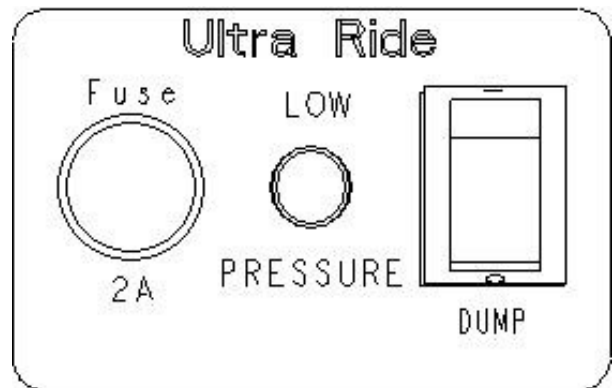
Your Link UltraRide chassis air suspension is fully automated and requires no manual intervention during normal vehicle operation. Ride height is controlled by the air control kit with the air compressor activated as necessary whenever the ignition key is in the ON position and system air pressure is below a preset minimum.

## CONTROL PANEL

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The dashboard mounted control panel includes three components that perform the following functions:

- The 2 ampere fuse on the left side of the control panel protects the electrical circuits on the UltraRide air kit. If your compressor does not start when the vehicle ignition is in the ON position and the reservoir pressure is low, check this fuse.



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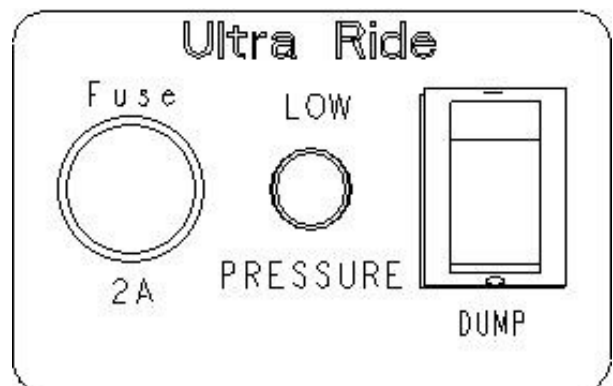
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- ❑ The Low Pressure Warning Light located in the center of the control panel indicates a severe loss of reservoir air pressure (below 60 psi) when the light is energized. The Low Pressure Warning Light may be on at vehicle start-up or briefly after the DUMP feature has been used; however, should it remain on for more than 5-7 minutes or should it come on while the vehicle is in motion, immediate action should be taken to determine and correct the source of air loss. Failure to take immediate corrective action may cause severe damage to suspension components.
- ❑ The DUMP switch located on the right hand side of the control panel causes air to be exhausted from the air springs when in the on position. This function may be used to raise or lower your vehicle for hitching or unhitching a towed vehicle. The normal position for this switch is OFF.



NEVER operate your vehicle with the DUMP switch in the ON position and/or the air springs deflated. Severe damage to the air springs and suspension components may result.

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## MAINTENANCE

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Under normal driving conditions, your UltraRide requires very little maintenance. However, a few simple preventative actions will extend suspension life and reliability. To reduce down time, most of these actions may be performed at normal vehicle service intervals. **Failure to perform scheduled maintenance may result in loss of warranty coverage.**

If your vehicle requires professional service, your authorized dealer can provide the necessary parts and service. Refer to your installer or the nearest dealer (located by either contacting Link Customer Service at (800) 222-6283 or online at [www.linkmfg.com](http://www.linkmfg.com).)



Before any maintenance or service is performed on an UltraRide chassis suspension, system air pressure must be relieved by pulling the air reservoir drain valve cable. Failure to do so may result in serious injury.

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**CHECK AT EVERY VEHICLE SERVICE INTERVAL:**

- Check Design Height (11.10 ±¼")
- Check for air leaks around fittings.
- Check tire pressures.
- Visually check for loose, worn, or damaged components.

**CHECK AFTER THE FIRST 1000 MILES:**

- Recheck & tighten any loose fasteners.
- Check for any loose or worn components.

**CHECK EVERY 30,000 MILES:**

- Check lower control arm, sway bar, and lateral control rod (panhard bar) bushings for wear. Replace is necessary.
- Check and re-torque all fasteners (refer to Torque Table)

**CHECK ANNUALLY:**

- Check shock absorbers for oil leaks and function

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## MAINTENANCE

TORQUE TABLE		
LOCATION	FASTENER	TORQUE
FRAME MOUNTED FRONT HANGER	1/2 UNC NUTS	100 FT-LBS
FRAME MOUNTED UPPER AIR SPRING BRACKET	1/2 UNC NUTS	100 FT-LBS
FRAME MOUNTED LATERAL CONTROL ROD BRACKET	1/2 UNC NUTS	100 FT-LBS
AXLE MOUNTED LATERAL CONTROL ROD BRACKET	5/8 UNF NUTS (U-BOLT)	150 FT-LBS
LATERAL CONTROL ROD	5/8 UNC NUTS	160 FT-LBS
AIR SPRING TOP STUD	3/4 UNC JAM NUTS	50 FT-LBS
AIR SPRING BOTTOM	1/2 UNC BOLTS	30 FT-LBS
LOWER SHOCK MOUNT (Bracket to Spring Arm)	1/2 UNC NUTS	100 FT-LBS
TRAILING ARM AXLE LOCATION	M20 FLANGE NUTS (U-BOLT)	275 FT-LBS
FRONT TRAILING ARM PIVOT BOLTS	3/4 UNC NUTS	275 FT-LBS
SHOCK ABSORBER BOLTS	9/16 UNC NUTS	115 FT-LBS
AIR CONTROL BOX	5/16 UNF NUTS	20 FT-LBS

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# *UltraRide* – TROUBLE SHOOTING GUIDE

<b>SYMPTOM</b>	<b>POSSIBLE CAUSES</b>	<b>CORRECTIVE ACTION</b>
<b>Vehicle sags when unused</b>	<input type="checkbox"/> Air fitting leaks <input type="checkbox"/> Air fitting defective <input type="checkbox"/> Height control valve defective <input type="checkbox"/> Air spring defective	<input type="checkbox"/> Remove fitting, apply joint compound, and re-install fitting. Do not over-tighten and do not use Teflon tape. <input type="checkbox"/> Replace air fitting. <input type="checkbox"/> Replace height control valve. <input type="checkbox"/> Replace air spring.
<b>Rough Ride</b>	<input type="checkbox"/> Air spring over-inflated. <input type="checkbox"/> Shock absorbers defective. <input type="checkbox"/> Tires over-inflated.	<input type="checkbox"/> Adjust height control linkage to maintain proper air spring ride height. <input type="checkbox"/> Replace shock absorbers. <input type="checkbox"/> Set tire inflation per vehicle owner's manual.
<b>Inconsistent handling</b>	<input type="checkbox"/> Air spring under-inflated. <input type="checkbox"/> Shock absorbers defective. <input type="checkbox"/> Tires incorrectly inflated. <input type="checkbox"/> Lateral control rod bushings damaged.	<input type="checkbox"/> Adjust height control linkage to maintain proper air spring ride height. <input type="checkbox"/> Replace shock absorbers. <input type="checkbox"/> Set tire inflation per vehicle owner's manual. <input type="checkbox"/> Replace lateral control rod.
<b>Suspension makes popping sound</b>	<input type="checkbox"/> Loose components	<input type="checkbox"/> Inspect components for damage and re-torque fasteners per torque table.

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## WARRANTY

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Link UltraRide warrants their suspension's fabricated structural components against failure under normal use for period of three (3) years or 36,000 miles\*, whichever occurs first. This warranty period begins with the date of installation to the original owner. Under this warranty Link UltraRide will replace or repair any part that by its inspection is determined to be defective. In addition, for a period not to exceed twelve (12) months \*\* Link UltraRide will provide a labor allowance, which it determines to be adequate to properly replace or repair defective structural parts and or components.

All parts or components thought to be defective must be returned with company authorization, freight prepaid, to Link UltraRide. A complete written explanation of claimed defects and circumstances of failure, the serial number, and date of installation must accompany these returns. Link UltraRide must authorize labor allowance prior to initiation of repairs.

\*Purchased components and/or accessories other than the fabricated structure are warranted for one (1) year or 12,000 miles, whichever occurs first. This warranty period begins with the date of installation to the original owner.

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**Limitations**

Link UltraRide accepts no warranty responsibility for:

- Incidental or consequential damages or loss of time or profits resulting from product failure.
- Damage resulting from owner or operator abuse, misuse or neglect.
- Failure due to improper installation.
- Component parts manufactured by others for Link UltraRide, beyond those companies' implied or expressed warranty.
- Compressor components under severe service applications – ask for details.

Suspension and axle must be operated within the range specified by axle and suspension manufacturers. Please check vehicle specifications and intended usage to insure axle will be within Gross Axle Weight Rating (GAWR). NO alteration of any suspension component is permitted. Use of vehicle in any situation or condition in excess of GAWR will void warranty.

This warranty is in lieu of any other warranty, obligation, or liability on the part of Link UltraRide and no other person is authorized to make any representation or warranties beyond those expressed herein. All implied warranties of fitness and merchantability for any particular purpose are hereby excluded. There are no other warranties of fitness which extend beyond the description on the face hereof.

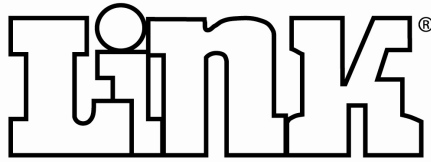
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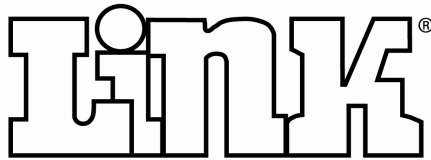
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Questions? Contact this Professional Installer :

Company : \_\_\_\_\_  
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Phone : \_\_\_\_\_

Installer : \_\_\_\_\_ Date : \_\_\_\_\_



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