The LRE12-001 kit is used on any two (2) axle trailer that features the MOR/ryde LRE suspension system. The kit provides a heavier duty shackle set up, grease-able bolts, and stronger spring eye bushings. This kit will provide longer life to the shackles and spring eye area.

TOOLS NEEDED FOR INSTALLATION:
• Jack Stands (minimum of two (2), four (4) are preferred)
• Floor Jack (minimum of one (1), two (2) are preferred)
• C-Clamp
• Hammer
• 9/16 Box Wrench
• 5/8 Box Wrench
• 11/16 Box Wrench
• 13/16 Box Wrench
• Socket Wrench (1/2” drive preferred) or Impact gun
• 9/16 Socket
• 5/8 Socket
• 11/16 Socket
• 13/16 Socket
• Drill and Reaming Bit or a thin file or rasp
• ¼ inch chisel or standard screw driver
• Centering pin

SUPPORT OF UNIT
The trailer should first be supported safely. This should be done by placing jack stands directly to the frame towards the front and the rear of the coach equally balancing the weight of the unit on all four points. The front landing gear may be used if only two jack stands are available. Be sure to raise the trailer to where all four tires are off the ground and the wheel can spin freely without resistance.

WARNING: THE UNIT SHOULD BE ON A LEVEL SURFACE. DO NOT ATTEMPT THIS INSTALL ON SOFT GROUND OR ON AN UNEVEN SURFACE. FOLLOW YOUR TRAILER MANUFACTURERS SPECIFICATIONS ON LIFTING AND SUPPORTING OF THE UNIT. PROPER CAPACITY JACKS AND SUPPORTS SHOULD BE USED AT ALL TIMES. DO NOT SUBSTITUTE BLOCKS OR OTHER ITEMS FOR JACKS.

NOTE: These instructions are based on lifting and supporting the entire weight of the trailer at once, this installation can be done by only supporting one side of the trailer at a time however the level of difficulty will increase. The best practice for this installation is to support the entire weight of the unit by jack stands/supports at one time.
**STEP 1:** Remove the wheels and tires on both sides of the trailer and place them out of the way.

The center tower portion is the frame hanger for the MOR/ryde LRE Shear spring, and the outside frame hangers are the positions for the front and rear leaf spring eyes. If your suspension assembly does not resemble this picture, please stop installation and contact MOR/ryde for a review of your unit to determine the proper kit needed for installation on your trailer.

**STEP 2:** Beginning on either side of the center equalizer, use the 13/16 socket and wrench to remove the four nuts fastening the bolts for the center equalizer, DO NOT REMOVE THE BOLTS.

**STEP 3:** Use the floor jack to support the forward axle, gently raise the axle to remove weight from the center equalizer.

**NOTE:** If using two floor jacks duplicate process of Step 3 for rear axle.

**STEP 4:** Remove the two bolts and shackle assembly from the front equalizer area.

**STEP 5:** Release the weight from the jack and repeat process for rear axle. Once finished, release the floor jack lowering the axle down. Both axles will be disconnected from the center equalizer at this time.

**STEP 6:** Using 9/16 socket and wrench, remove eight nuts and bolts holding the MOR/ryde LRE Rubber Shear Spring into the frame hanger. There are four on each side of the center frame hanger. Once all eight are removed you should now be able to lower the rubber shear spring out of the housing.

**STEP 7:** Using the 11/16 socket and wrench, remove the four nuts and bolts holding the LRE Shear Spring Brackets from the shear spring.

**NOTE:** At this point the disassembly of the center equalizer is complete.
WARNING: BRONZE BUSHINGS AND THE FASTENING BOLTS MAY NOT INSTALL EASILY AND AT TIMES WILL NEED TO BE HAMMERED INTO PLACE. DO NOT STRIKE THE ZERK FITTING DIRECTLY WITH THE HAMMER AS THIS WILL DAMAGE THE FITTING. PLACE A SECTION OF PIPE WITH AN INSIDE DIAMETER OF 3/8 OVER THE ZERK FITTING ENCIRCLING THE ZERK. STRIKE THE END OF THIS TUBE.

STEP 1: Using the 11/16 socket and wrench, install two of the new LRE43-001 Shear Spring brackets (c) onto the rubber shear spring using four of the new 7/16-14 x 1.25 Grade 5 Zinc Bolts (g) and four of the .44-14 Grade 2 Lock Nut (i). Torque rating on these is 45 foot pounds.

STEP 2: The shear spring is now ready for reinstallation into the center frame hanger. Position the shear spring into the center hanger and fasten into place using eight of the 3/18-16 x 1 Grade 8 Yellow Zinc Bolts (d) and eight of the 3/8-16 Grade 5 Zinc Lock Nuts (j). Torque rating on these is 40 foot pounds.

STEP 3: Using the chisel or standard screw driver remove the plastic bushing from the spring eye.

STEP 4: Insert one of the bronze bushings (b) into the spring eye. Installation of this may be difficult and may require the use of the C-Clamp to push the bushing into the spring eye. The file may also be used to “chamfer” or “round” the edge of the bushing to help insert it into the spring eye. Once bushing is installed, reaming tool may be required to allow bolt to insert easily.

STEP 5: Using the floor jack, raise the front axle up to where the spring eye is in position for the new shackle bracket/bolt assembly to be installed.

NOTE: The grease zerk may be installed to the inside or to the outside, this is done at customer preference. The grease exit hole location on the bolt should face down to allow for ease of grease flow.

STEP 6: Once the new shackle/bolt assembly is installed with the zerk fittings set to the preferred direction, attach the two hole shackle plate (a) and fasten using two of the 7/16”-20 Flange Lock Nut (e). The torque rating on this is 50 foot pounds.

STEP 7: Repeat Step 6 process for the rear side of the shear spring assembly.

STEP 8: Repeat Steps 1 through 7 for the opposite side of the unit for the LRE Shear Spring Assembly area.

NOTE: At this point the reassembly of the center equalizer is complete.
STEP 1: Using the 13/16 socket and wrench, remove the nut from the front spring eye.

STEP 2: Position the floor jack beneath the axle, raise slightly allowing the floor jack to hold the weight of the axle.

STEP 3: Remove the spring eye bolt and discard.

STEP 4: Release the jack pressure slowly allowing the axle and leaf spring eye to drop out of the frame hanger.

STEP 5: Using the chisel or a standard screw driver, remove the plastic bushing from the spring eye.

STEP 6: Insert the new bronze bushing (b) into the spring eye. A C-Clamp may be required for this Step.

STEP 7: Apply pressure to the floor jack helping to raise the axle and leaf spring back into the frame hanger. Use a centering pin to help center this.

STEP 8: Once centered, insert one 9/16”-7/16-20 Wet Bolt 2.90” long (h) and fasten with one 7/16”-20 Flange Lock Nut (e). Tighten with 13/16 socket and wrench, torque rating is 50 foot pounds.

NOTE: The grease zerk may be installed to the inside or to the outside, this is done at customer preference. Note the grease exit hole location on the bolt, this should face down to allow for ease of grease flow.

STEP 9: Repeat Steps 1-8 on the rear leaf spring eye.

STEP 10: Repeat Steps 1-9 on the opposite side.

NOTE: Once all four spring eye areas are installed the leaf spring eye area is complete.

At this point use NLGI Standard No 2 automotive grease to lubricate each fitting. Grease should flow easily through the zerk fitting, bolt cavity, and exit into spring eye bushing area. If grease flow is restricted, repeat the above Steps for the necessary bolt location and check the grease exit hole position of the bolt. The hole position may need to be altered to better allow grease flow. Once all grease fittings are accepting grease, reinstall the tires and remove the unit from the jack stands. Torque wheel bolts to correct torque specification.