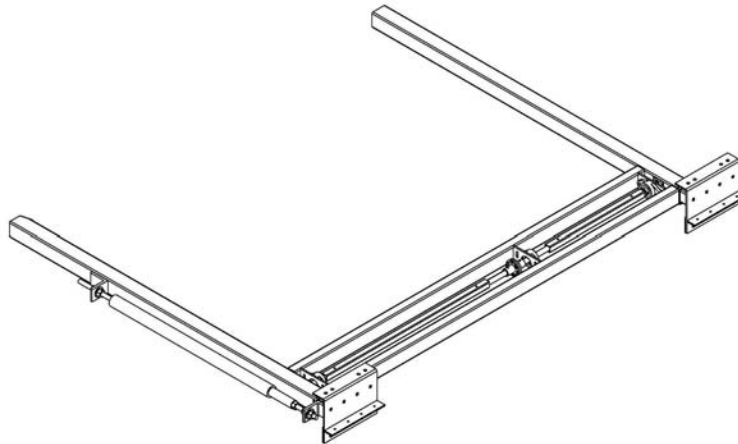




Equalizer Systems  
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## Forest River Slide-Out Retrofit Guide

This guide only applies to coaches equipped with Equalizer Systems shaft timed slide-out system 7257. Additionally, this retrofit is not applicable for all floor plans equipped with this slide-out system. Please contact Equalizer Systems for relevant floor plan information.



### Warning

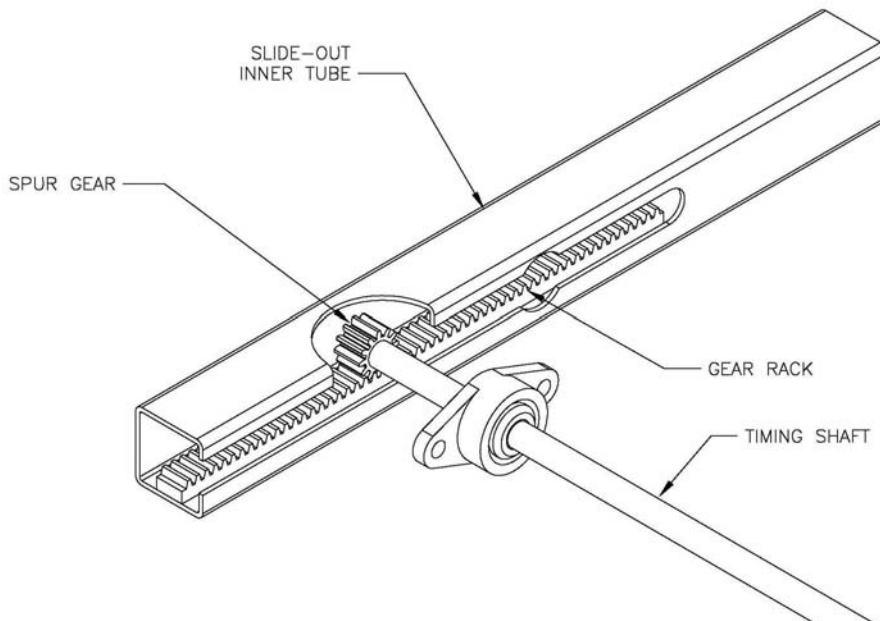
- **This retrofit procedure involves welding.**
- **Use all necessary precautions and safeguards to protect the motorhome electrical systems from damage due to welding energy.**
- **Equalizer Systems accepts no liability for any damages caused by or related to improper welding procedures or techniques.**
- **Please read and understand the entire instruction manual before starting the procedure.**
- **If you have any questions, please contact Equalizer Systems Technical Support at (800)846-9659 ext 339.**

## Summary

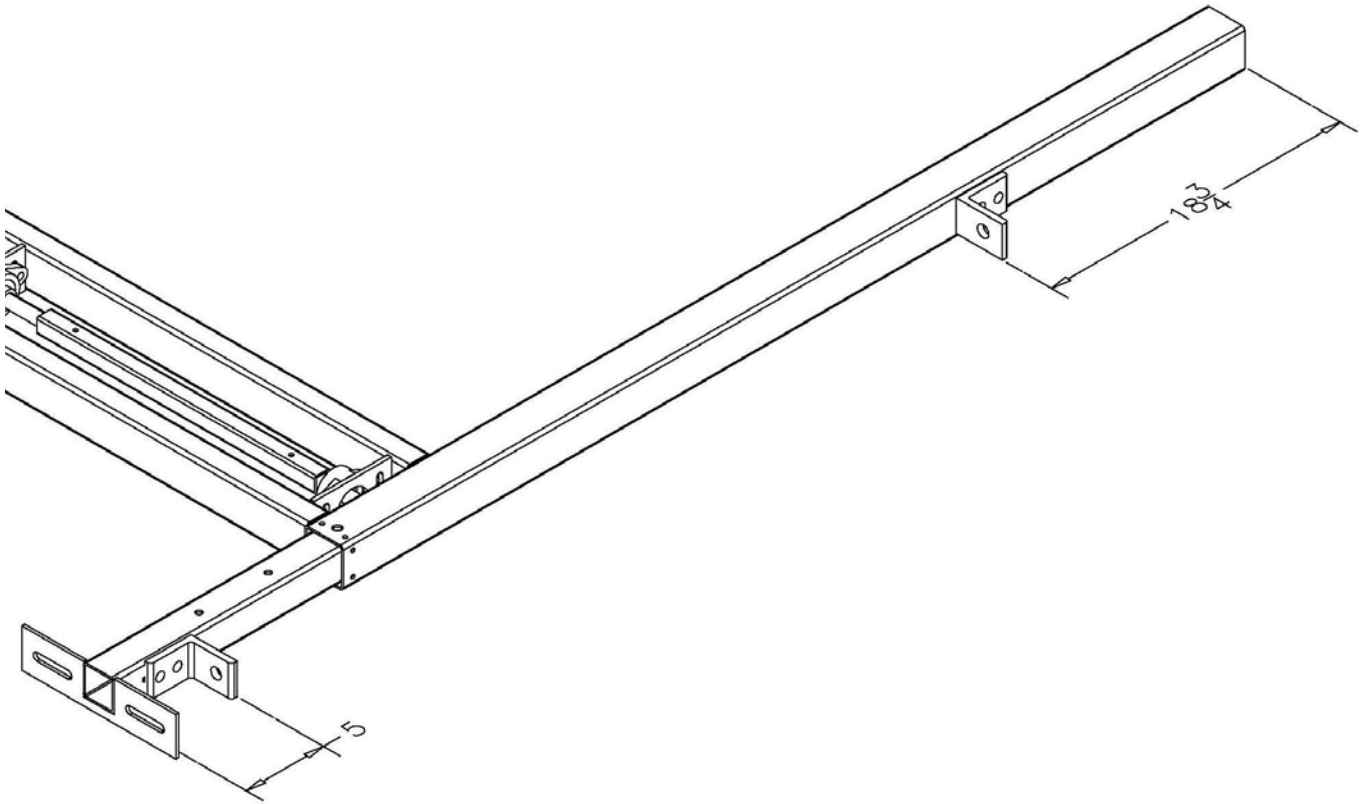
This retrofit removes the timing shaft assemblies and adds a second hydraulic cylinder slide-out rail and two flow dividers to the kitchen slide-out system. Brackets are welded to the forward inner and outer tubes to attach the new hydraulic cylinder in a manner similar to the existing cylinder located at the rear of the slide-out mechanism.

## Retrofit Instructions

- 1) Extend slide out fully support the box and disconnect inner tubes from the slide-out box.
- 2) Disconnect rod end of the existing cylinder.
- 3) Retract the cylinder.
- 4) Remove timing shaft assemblies. This task must be performed with the slide tubes almost fully retracted. There are cutouts in the outer and inner tubes of the slide rail assembly. These cutouts allow the gear to be removed and are in alignment when the slide is almost fully retracted.
  - Position the slide-out to line up the gear removal cutouts.
  - Disconnect the timing coupler in the center of the two shafts.
  - Loosen the setscrews on the shaft collars or bearings (depending on model).
  - Remove the bolts from the bearings.
  - Remove the shafts from the coach.



- 5) Attach the supplied cylinder mount brackets to forward inner/outer tubes.  
Note: the brackets are supplied in two different sizes. It is important to mount them in the proper locations to maintain cylinder alignment.
- Weld bracket, part number 3038, on inner tube at 5 inches from end, as shown in diagram.
  - Weld bracket, part number 2955, to outer tube at  $18 \frac{3}{4}$  inches from the end, as shown in diagram.

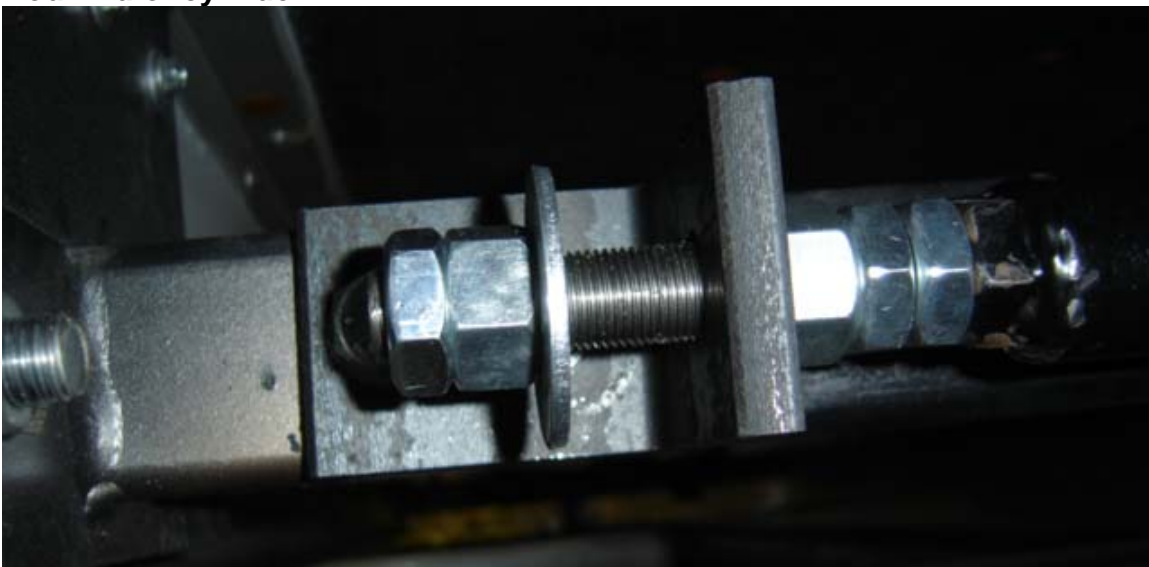


- 6) Mount new cylinder
  - Preliminary adjust the new cylinder
    - Match the adjustment of the existing rear cylinder in relation to the outer tube of the slide-out. Usually 7 inches from end of outer tube to the gland end of the cylinder.

**Base End of new cylinder**

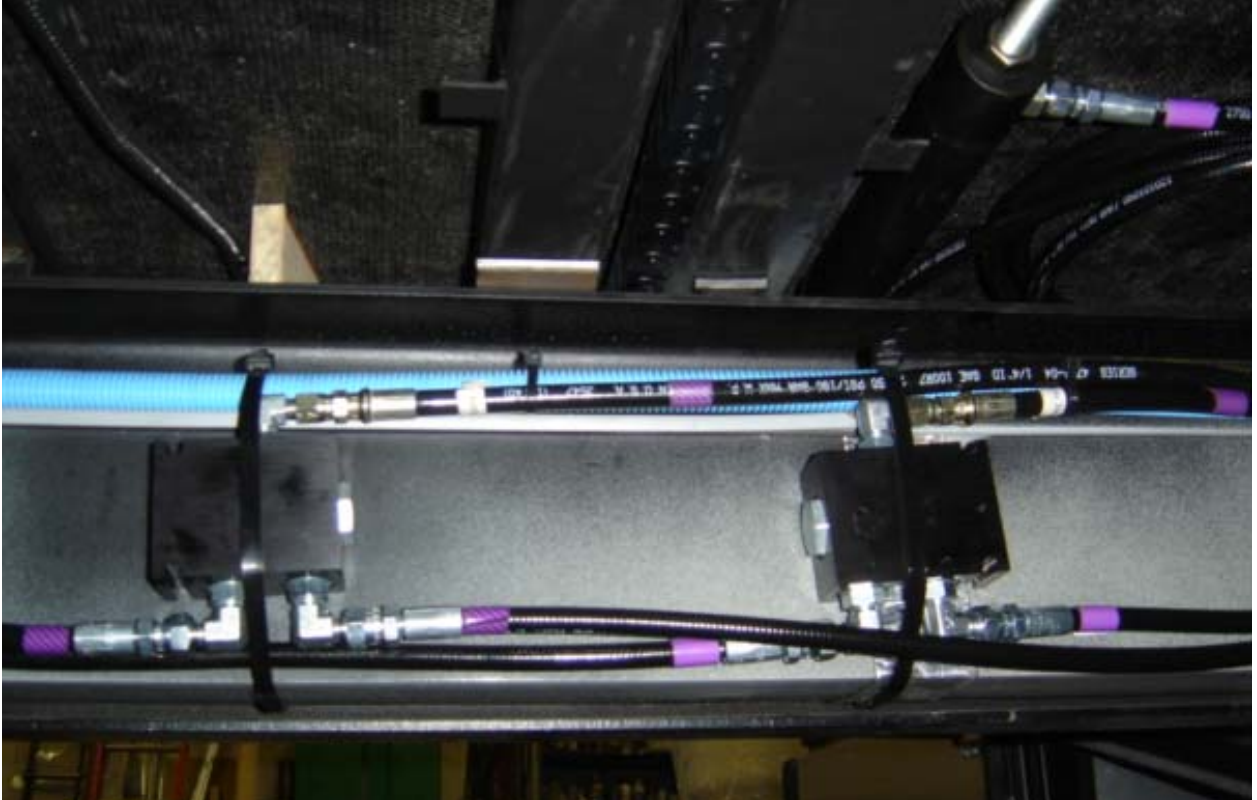


**Rod End of cylinder**



7) Install flow dividers

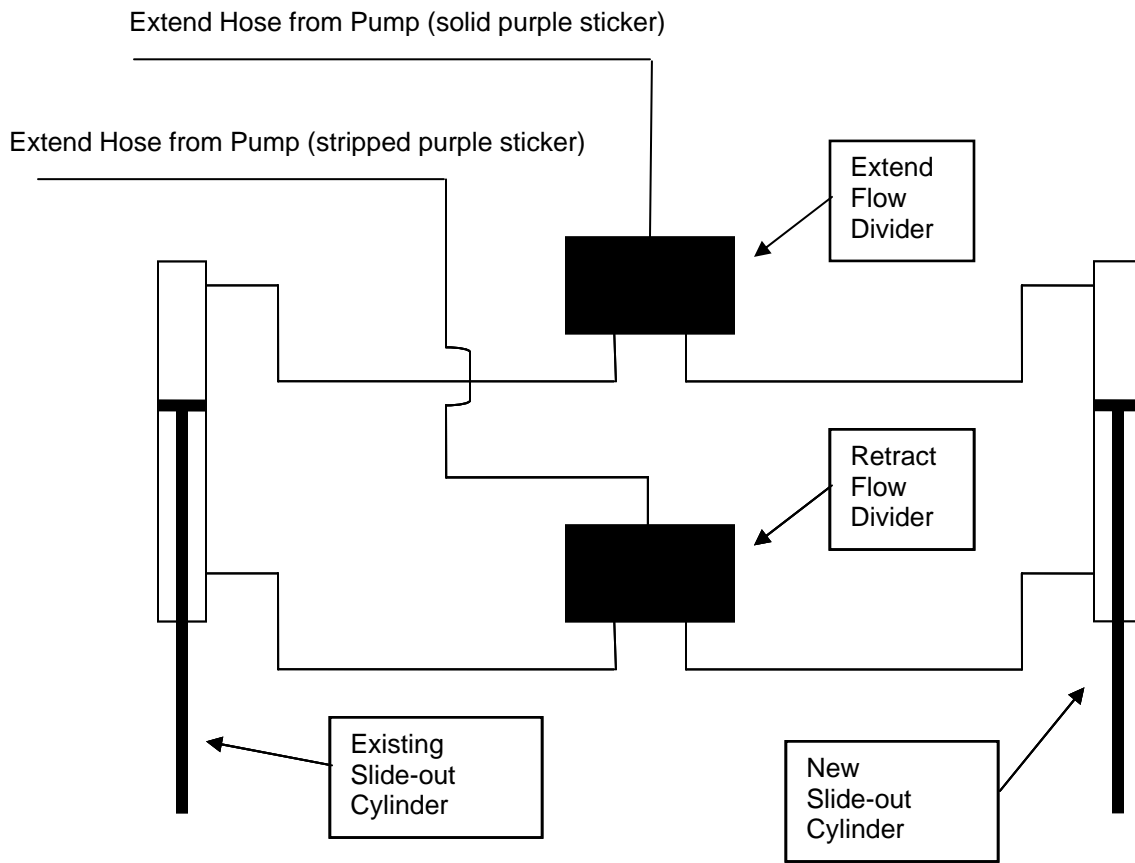
- Flow dividers can be conveniently mounted on the inside of the main chassis frame rail using wire ties. Make sure that the selected mounting location is within reach of the hoses to the existing slide-out cylinder.



8) Plumb- see the following diagram.

- Remove Anti-creep valve assembly from rod end of existing cylinder
  - Cylinder may need to be loosened and rotated to allow valve assembly to spin.
- Install 90 degree restrictor fitting (2205) into the rod end port of the existing cylinder.
- Hoses- connect hoses as shown in the following diagram.
  - Connect each of the existing cylinder hoses (from the pump) to a flow divider.
  - Connect the supplied striped purple hoses to the retract (rod end) ports of slide-out cylinders and to the retract flow divider,
  - Connect the supplied solid purple hoses to the extend (base end) ports of slide-out cylinders.

**Caution: Do not over-tighten fittings!!!**

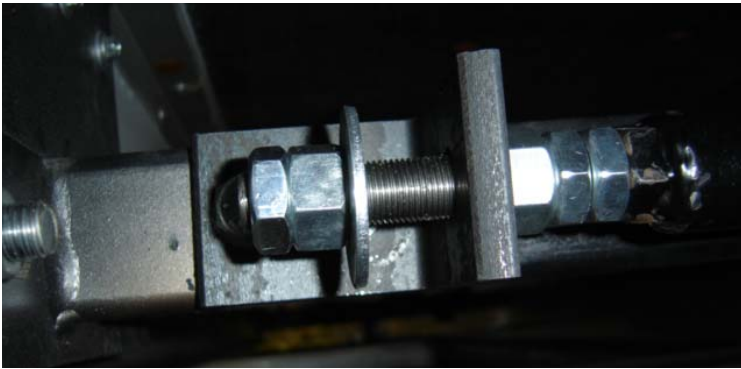


9) Purge the system

- With the slide-out still disconnected from the slide room, run the cylinders to full extension and then to full retraction at least three times. If one cylinder lags behind, continue to press the slide-out switch and run the pump until the lagging cylinder catches up. Run the system until the slide-out rails are in time with each other.
- Check for leaks at all connections throughout this process.

## 10) Final Adjustments

- Attach the slide mechanism to the slide room and test.
- Adjust the cylinder mounting position and stop tube to obtain proper in and out sealing. Note: It is important that the system be adjusted that the cylinder is fully stroking or being stopped by the stop tube at the end of range of motion. This ensures that the slide-out flanges will not be damaged by the force generated by the hydraulic cylinder. It may be necessary to leave a gap between the nuts on the rod end of the hydraulic cylinder. Make sure to double nut the end of the cylinder.



- Ensure the inner rail to slide box dimensions meet the criteria in the following diagram.

A critical factor for slide out operation is proper room height adjustment. It is important to maintain weight on the slide out rail mechanism through the range of motion.

### **Non-Flat or Above Floor Slide Out:**

See Figure 1.

Dimension from bottom of slide box to top of inner rail:

$$B \geq A$$

B must be equal to or greater than A

Typically  $B = A (+\frac{1}{8}'' , -0'' )$

