ROTA-FLEX™ PIN BOX

OWNER'S MANUAL

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Introduction

This document provides operation information for the Curt® Rota-Flex™ Pin Box.

Additional information about this product can be obtained from lippert.com/support or by downloading the free LippertNOW app. The app is available on Apple App Store® for iPhone® and iPad® and also on Google Play™ for Android™ users.
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NOTE: Images used in this document are for reference only when assembling, installing and/or operating this product. Actual appearance of provided and/or purchased parts and assemblies may differ.

Safety

Read and understand all instructions before installing or operating this product. Adhere to all safety labels.

This manual provides general instructions. Many variables can change the circumstances of the instructions, i.e., the degree of difficulty, operation and ability of the individual performing the instructions. This manual cannot begin to plot out instructions for every possibility, but provides the general instructions, as necessary, for effectively interfacing with the device, product or system. Failure to correctly follow the provided instructions may result in death, serious personal injury, severe product and/or property damage, including voiding of the Lippert limited warranty.

⚠WARNING

The "WARNING" symbol above is a sign that a procedure has a safety risk involved and may cause death or serious personal injury if not performed safely and within the parameters set forth in this manual.

⚠WARNING

Failure to follow instructions provided in this manual may result in death, serious personal injury and/or severe product and property damage, including voiding of the component warranty.

⚠CAUTION

The “CAUTION” symbol above is a sign that a safety risk is involved and may cause personal injury and/or product or property damage if not safely adhered to and within the parameters set forth in this manual.

⚠CAUTION

Always wear eye protection when performing service, maintenance or installation procedures. Other safety equipment to consider would be hearing protection, gloves and possibly a full face shield, depending on the nature of the task.

Operation

Hitching Procedure

⚠WARNING

Failure to follow these instructions may result in death or serious injury.

⚠WARNING

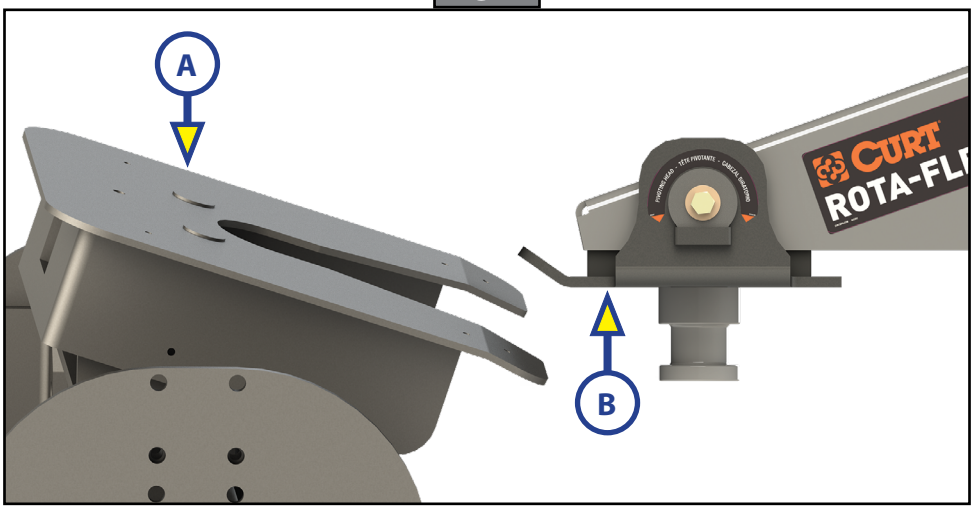
Working between the tow vehicle and trailer can be dangerous. Failure to properly secure the tow vehicle and trailer from movement can result in serious personal injury or death and serious product damage. Make sure tow vehicle and trailer are secured from movement. Make sure all safety precautions are followed to prevent personal injury or product damage.

1. Place chocks firmly against the front and rear of each trailer wheel to prevent possible movement either forward or backward.
2. If necessary, lower the tow vehicle's tailgate.

NOTE: Clearance of the lowered tailgate to the trailer needs to be monitored during hookups, since some combinations of tow vehicle and trailer have little or no clearance.

3. Using the trailer landing gear, adjust trailer height per the manufacturer's recommendation so the bottom of the trailer's pin box (Fig. 1B) is 1/2" to 1" below the top portion hitch skid plate (Fig. 1A).

Fig. 1



⚠WARNING

Do not attempt to hitch the trailer by using trailer jacks to lower the trailer and kingpin onto the hitch opening. This could result in the kingpin coming to rest on top of the skid plate instead of within the hitch opening, which may result in death or serious injury.

NOTE: During the hitching maneuver, the bottom of the trailer's pin box should come into contact with the hitch skid plate ramp.

4. Open the jaw on the 5th wheel head. Refer to the manufacturer's instructions for proper 5th wheel hitch latch operation.
5. Back the tow vehicle slowly toward the trailer until the tow vehicle's hitch contacts the bottom of the pin box and the kingpin slides into the receiver.
6. Latch 5th wheel hitch in closed position per the instructions of the 5th wheel hitch manufacturer.
7. With the trailer wheels still chocked, make sure:
   A. The landing gear is resting on firm, level ground.
   B. The landing gear fully supports the trailer's weight.
   C. The tow vehicle is stationary and in park with the emergency brake on.
   D. The bottom of the pin box is resting on top of the hitch.
   E. There is no space between the mating surfaces.
8. If space exists between the pin box and hitch, the trailer has not been properly hitched. Do not tow the trailer. Instead, repeat the hitching steps 1-7 until the trailer is properly hitched.
9. Connect any electrical cables between the tow vehicle and trailer.
10. Do not tow the trailer until a Pull Test has been conducted. Go to the Pull Test section in the manual.

Pull Test

⚠WARNING

Review hitch manufacturer recommendations for Pull Test prior to proceeding and adjust accordingly.

⚠WARNING

Failure to perform a pull test may result in severe property damage, serious personal injury or death. Failure to secure tow vehicle and trailer from movement during procedure could result in severe property damage, serious personal injury or death. Make sure tow vehicle and trailer are properly secured against movement during the procedure.

1. Make sure the trailer wheels are chocked, the trailer landing gear is resting on firm ground to support the trailer and the tow vehicle is in park with the emergency brake engaged. Double check tailgate is lowered.
2. Return to the cab of the tow vehicle, release the emergency brake and then apply the trailer brakes.
3. Slowly pull the trailer forward with the tow vehicle.
   A. If the tow vehicle is properly hitched, the wheel chocks and trailer brakes should keep the truck from moving forward.
   B. If the trailer is not properly hitched, the trailer will separate from the hitch and the truck will move forward while leaving the trailer behind. If this happens, repeat the Hitching Procedure.
4. After successfully performing the Pull Test, fully raise the landing gear per manufacturer's recommendations.
5. Raise the tailgate of the truck.
6. Check and inspect all electrical circuits for proper operation, including clearance lights, turn signals and stop lights.
7. Remove and store all trailer wheel chocks.

Troubleshooting

What is happening?	What should be done?
Trailer not level.	Adjust pin box or hitch accordingly.
Excessive bottoming of skid pad assembly. Chucking in tow vehicle.	Inspect the rubber compression bumpers to ensure they are in place. Check trailer brakes for proper operation. If above is satisfactory, it may be necessary to install a shear spring with a different spring rate.
Skid pad assembly does not return to neutral position when disconnected from tow vehicle.	Check for loose or torn rubber shear spring.
Excessive noise from pin box area.	Verify that the pin box is securely attached to the 5th wheel. If the kingpin is excessively worn, the skid pad will need to be replaced. Hitch mechanisms can also cause noise. Verify that unwanted noise is not coming from the hitch. The hitch manufacturer can provide guidelines for this check.

Maintenance

- Inspect kingpin for excessive wear (annually).
- Inspect the skid pad to ensure a neutral (centered) position. When the trailer is disconnected from the tow vehicle, an equal gap of approximately 1 - ¼" should be observed between the lip of the skid pad and the rubber compression bumpers. It is normal to be able to slightly move and twist the skid pad assembly with hand force.
- Inspect the retainment rods for excessive wear. The retainment rods may show surface scratch marks as an indication of occasional contact, but the scratches, if present, should be minimal.
- Inspect the plastic glide pads for excessive wear. The glide pad thickness should be no less than ¾".
- Periodically check the torque values of all bolts.
- Check bearing and grease once per season. If more grease is needed, add it to the bearing assembly. Use any of the recommended brands in the chart below.

⚠WARNING

Do not mix lithium, calcium, sodium or barium complex greases. Mixing these incompatible compounds can create a corrosive and/or toxic chemical with fumes that can result in a serious health risk if exposed to skin or lungs. When converting from one grease to another, make sure all old grease is removed completely prior to applying new grease.

Approved Sources - Bearing Grease	
Mobil Oil	Mobilgrease HP
Exxon/Standard	Ronex MP
Kendall Refining Co.	Kendall L-427
Ashland Oil Co.	Valvoline Val-plex EP Grease
Pennzoil Prod. Co.	Premium Wheel Bearing Grease 707L

Please recycle all obsolete materials.

For all concerns or questions, please contact Lippert
Ph: 432-LIPPERT (432-547-7378) | Web: lippert.com | Email: customerservice@lci1.com

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Follow proper safety practices. If in doubt, consult a professional RV technician.