

INSTALLATION MANUAL

16600

Level of Difficulty

Moderate

Weight Capacity

Gross trailer weight (GTW)	20,000 lbs.
Vertical load	5,000 lbs.

Parts List

Item	Qty	Description
1	1	Base weldment
2	1	Upper weldment
3	1	Lower coupler assembly
4	1	Lube plate
5	2	Hex head cap screw, 1/2"
6	2	Nylock nut, 1/2"
7	1	Bushing
8	1	Hex bolt, M20
9	1	Nylock nut, M20
10	1	Flat washer, M20
11	4	Spacer, 0.094"
12	4	Base rail mounting clip
13	4	Base rail mounting pin, 1/2"

Tools Required

Ratchet	Torque wrench
Socket set	--

Torque Specifications

1/2" bolt	65 ft.-lbs.
M20 bolt	300 ft.-lbs.

Use above torque setting unless otherwise noted

Product Registration

CURT stands behind our products with industry-leading warranties. Provide feedback and help us to improve our products by registering your purchase at: warranty.curtgroup.com/surveys

NOTICE

Before you begin installation, read all instructions thoroughly.

Proper tools will improve the quality of installation and reduce the time required.

To help prevent damage to the product or vehicle, refer to the specified torque specifications when securing hardware during the installation process.

⚠ DANGER ZONE PRECAUTIONS

Block all trailer tires in front and behind with appropriate wheel chocks. Do not substitute objects such as, but not limited to: stones, wood blocks, etc. Front trailer lifting jacks must be supporting the trailer and resting on a firm and level surface.

Towing vehicle must be stationary with automatic transmission in park (manual in neutral), emergency brake applied and engine off.

⚠ WARNING

Fully instruct and demonstrate the operation of this 5th wheel hitch to the end user. Include the importance of observing all warnings contained herein, including warning labels on 5th wheel hitch main body. Provide this manual in its entirety to the end user. Serious injury or death may result if the warnings above are not observed.

Do not expose hands, body parts or clothing between the truck and trailer or the truck's bed sides and trailer. If you must place any part of your body under trailer or between truck and trailer, you must:

1. Block all trailer tires with wheel chocks.
2. Make sure trailer landing gear / jacks are resting on a firm, level surface.
3. Towing vehicle must be stationary with auto transmission in park (manual in neutral), emergency brake applied and engine off.

Never exceed the towing capacity (trailer and contents combined) of any towing system component or your vehicle.

Improperly coupled trailers can separate or drop without notice, causing serious injury or death. To reduce the chance of serious injury or death:

Never attempt to couple trailer without reading and following all instructions thoroughly.

Always follow operating instructions to secure trailer to tow vehicle. Make sure the hitch is secure before towing.

Prior to towing, ensure all components and hardware are structurally sound and secure.

Always chock the trailer to prevent movement while coupling the hitch.

Always ensure lynch pins are installed through handle before towing.

Always perform a pull test prior to towing. See 'pull test' later in this instruction manual.

Never position anyone under the trailer's kingpin area during coupling and uncoupling.

The 5" offset adds more turning clearance than traditional over-axle 5th wheel hitches, which may lessen the need for a slider. However, each truck-trailer configuration is different. Be sure to review each configuration and always ensure adequate trailer-to-cab clearance when maneuvering.

Do not torque upper M20 head pivot bolt (#8). The nut is designed to only make contact but not apply clamping force. If bolt is torqued, it could cause bolt to fail causing hitch separation during use leading to severe injury or death. If hitch head appears loose, the 20mm bolt can be removed and inspected for damage. If any cracks or damage is visible, immediately discontinue use of hitch.

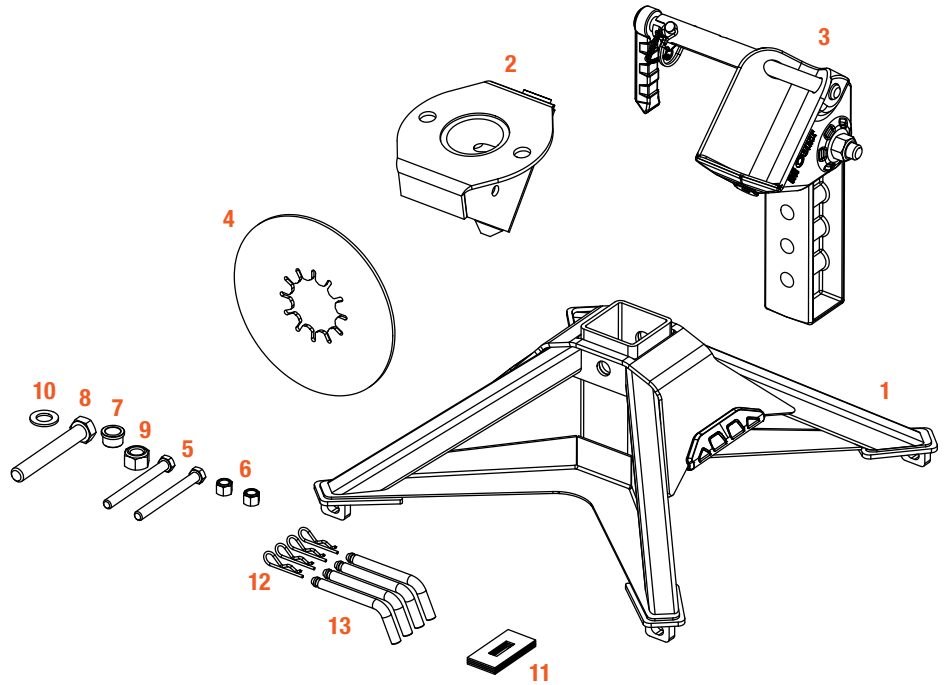
Product Photo



ASSEMBLY

Parts List

Item	Qty	Description
1	1	Base weldment
2	1	Upper weldment
3	1	Lower coupler assembly
4	1	Lube plate
5	2	Hex bolt, 1/2"
6	2	Nylock nut, 1/2"
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8	1	Hex head cap screw, M20
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11	4	Spacer, 0.094"
12	4	Base rail mounting clip
13	4	Base rail mounting pin, 1/2"



CALCULATING HEIGHT

Before you begin

Assembly includes measuring the height requirement for the 5th wheel head in relation to the trailer ride height at the kingpin box and skid plate. Ideally, the trailer should ride as near to level as possible.

The 5th wheel is adjustable from 16-3/8" to 20-3/8", from the truck bed rails to the top of its skid plate. Adjustment is attained by adjusting the lower coupler assembly up or down, in relation to the legs, in 2" increments (typical clearance between the truck bed rails and the trailer should be a minimum of 5-1/2"). Follow the steps below to measure.

Step 1

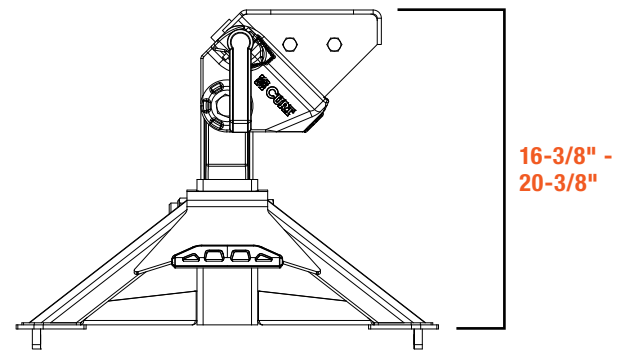
With the trailer on a firm and level surface, set chock blocks in front of and behind the tires. Do not substitute wood blocks, rocks, etc. for chock blocks. Extend front trailer lifting jacks, adjust as required to set trailer at or near level.

Step 2

Measure from the ground to under the trailer's kingpin box skid plate or lube plate, if used. This will be the portion in contact with the 5th wheel's skid plate once coupled.

Step 3

Measure from the ground to the surface of the truck bed rails. Subtract the measurement taken in Step 2 from Step 1. This value will be near the height requirement for the 5th wheel.



MAIN BODY ASSEMBLY

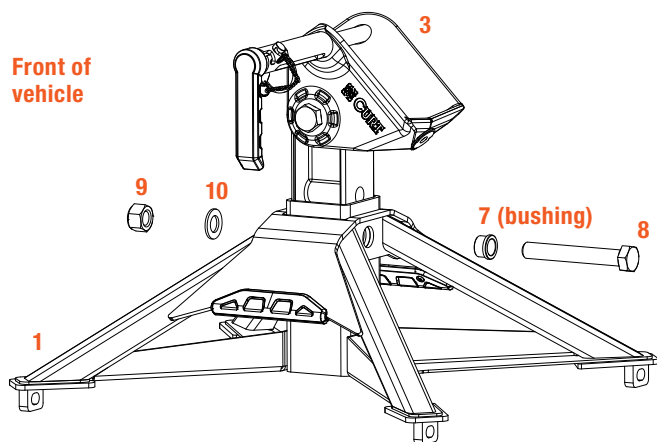
Before you begin

Once you have determined the height adjustment required for the 5th wheel, assemble the lower coupler assembly to the base weldment using the appropriate holes. Occasionally, the trailer's kingpin ride height.

MAIN BODY ASSEMBLY (CONT)

Step 1 - Lower Coupler Attachment

Attach lower coupler assembly (#3) to base weldment (#1) using the fasteners shown (#7, #8, #9, #10) in the height position determined in the previous steps. Make sure the bushing is installed as shown and is toward the rear of the vehicle. Torque 20mm bolt and nut to 300 ft-lbs.

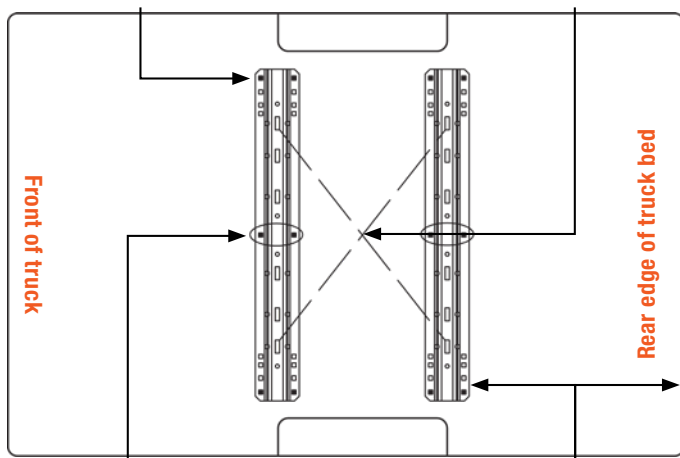


Step 2 - Check the Base Rails

Before attaching the 5th wheel hitch to the tow vehicle's base rails, check the base rails in your truck to be sure they are properly installed and are parallel with each other. The diagonal dimensions should be the same, see diagram below.

Ensure rail kits are installed according to rail kit manufacturer's recommended specifications

Measure diagonal from same reference point. Distances should be equal



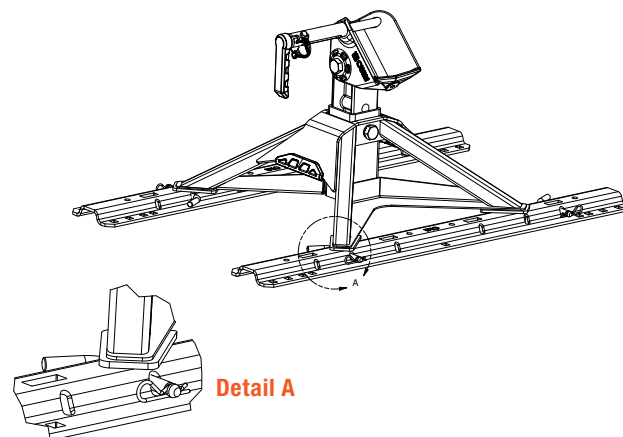
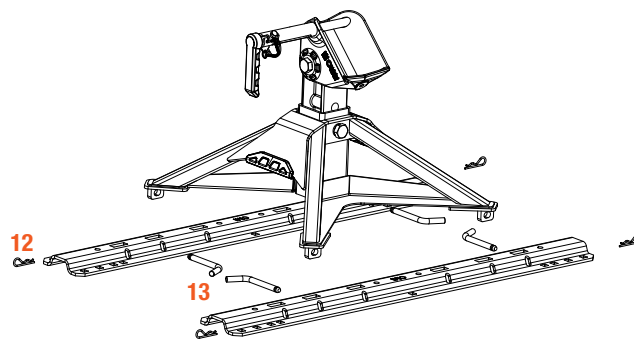
Each base rail must have a bolt in either of the marked holes. Check for obstructions before drilling

Rear edge of truck bed to rear edge of base rail

Step 3 - Mount to the Base Rails

With the base rails correctly positioned, the 5th wheel will drop into the slots on the top surface of the base rails. Align the four tabs on the bottom of the 5th wheel legs with the corresponding slots in the tow vehicle's base rails.

Lower the 5th wheel into the rails. Secure with four 1/2" rail mount pins & clips (#12, #13) as illustrated in the diagrams below. If desired, the neoprene spacers (#11) can be used between the hitch and the rails to reduce clanking and rattling.



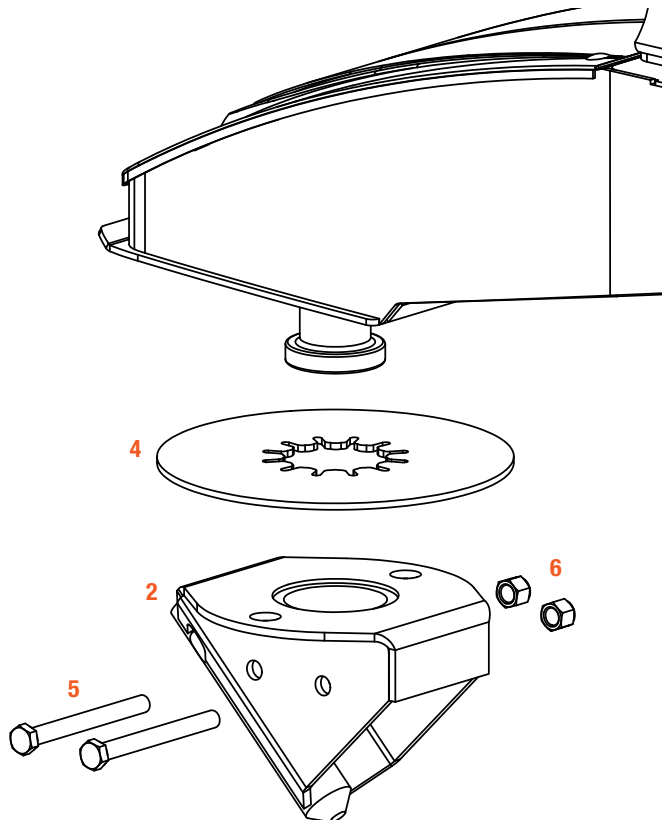
If installing new base rails, follow the instructions provided by the rail manufacturer for proper placement, alignment and spacing per your vehicle's year, make and model. If the 5th wheel is being mounted to existing base rails, and alignment issues arise, it may be necessary to proceed as follows:

Loosen the base rail bolts and realign the base rails to facilitate installation. It is recommended to replace old lock washers with new lock washers at this time. Torque the base rail bolts to the rail manufacturer's specifications.

UPPER COUPLER INSTALLATION

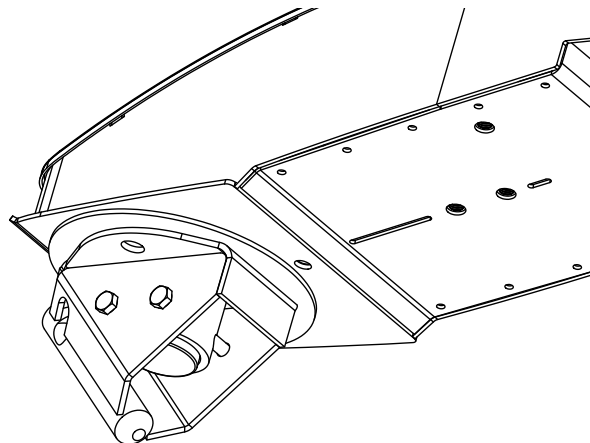
Step 1

Place upper weldment (#2) and lube plate (#4) as shown, on trailer king pin. While holding the upper weldment tight against the pin box, insert two 1/2" hex bolts (#5) through the upper weldment and secure with 1/2" nylock nuts (#6).



Step 2

Torque the 1/2" hex bolts and nuts to 65 ft-lbs.



Step 3

Make sure the the upper weldment (#2) spins freely around the king pin.

COUPLING & LOCKING

⚠ WARNING

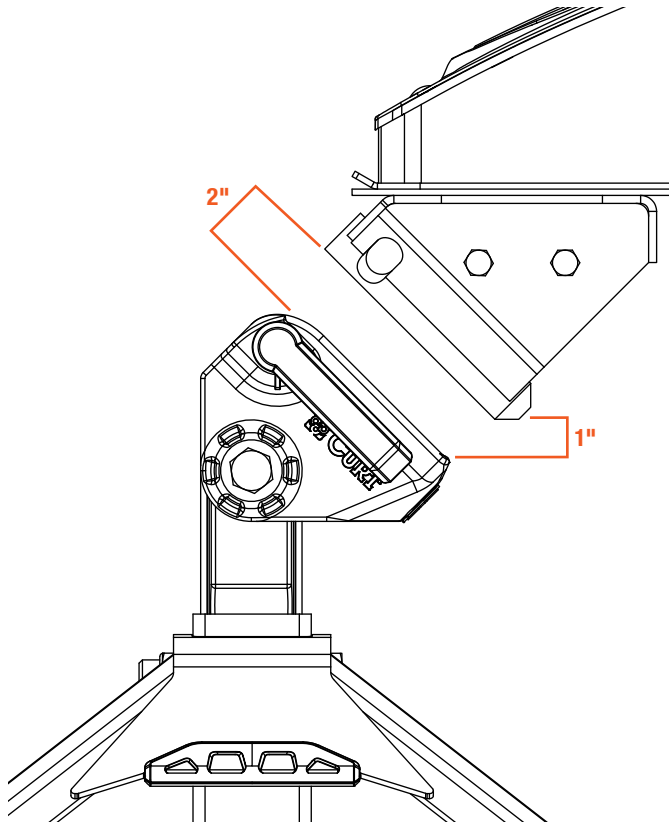
Never position yourself or others under the trailer's kingpin area (danger zone) during coupling and uncoupling. If for any reason, you must position any part of your body under the trailer or between the truck and trailer or between the trailer kingpin and 5th wheel hitch, you must follow the steps in the 'Danger Zone Precautions' on page 1.

Preparing the vehicle and trailer to couple

It is advised to perform trailer connections to the 5th wheel on a firm and level surface. Multiple wheel chocks should be used in front of and behind the trailer tires. Do not substitute objects such as, but not limited to: stones, wood blocks, etc.

Open or remove tailgate as required to safely back the tow vehicle under the trailer and center the trailer coupler with the opening on the hitch head. Stop the tow vehicle when the trailer's coupler is approximately 2" from the coupler on the fifth wheel trailer.

Ensure the trailer wheels are chocked and proceed to raise or lower the trailer jacks to position the coupler 1" above the hitch head as shown.



Step 1 - Preparing the 5th wheel to couple

Check for any signs of damage to the locking mechanism. If any of components are missing or damaged, do not attempt to use the hitch until it has been repaired.

Check to make sure 20mm bolt holding the lower coupler assembly to the base is not loose if needed re-torque to 300 ft-lbs.

Step 2 - Preparing the 5th wheel to couple

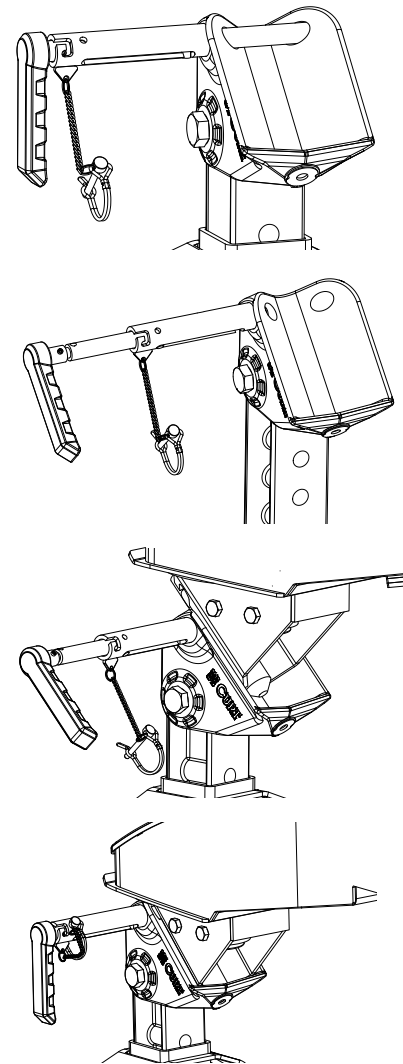
Ensure the locking mechanism is free of excessive dirt, rust, grease, snow, ice or other foreign material preventing it from cycling properly. Clean excessive dirt, snow or ice with warm soap water. Lightly lubricate exposed surfaces with a rust inhibitor to restore proper operation. Components with excessive amounts of rust may require replacement to restore proper functionality.

Step 3 - Coupling & Locking

Remove the safety pin on the 5th wheel's handle. Push handle in and turn counterclockwise until rotation stops. Then pull handle completely out to allow coupling.

Back the tow vehicle the rest of the way slowly until trailer coupler contacts face of hitch. Set the parking brake and raise the jacks on the trailer until trailer coupler has seated fully into hitch coupler (if coupler does not seat fully, the vehicle might need to be moved slightly forward to relieve tension on the hitch)

Push the hitch handle in and turn clockwise to the locked position and re-insert the safety pin. Check to make sure handle is fully inserted and safety pin is in place prior to performing pull test, raising camper jacks fully and removing wheel chocks.



COUPLING & LOCKING (CONT)

Pull test

After coupling and prior to removing trailer wheel blocks and / or raising front trailer jacks, you must do the following.

Set towing vehicle in a forward gear and lightly tug on the trailer to ensure that 100% coupling has taken place. If resistance is felt, release forward pressure, set vehicle to park (if equipped with an automatic transmission) and activate the emergency brake. Place in neutral if equipped with a standard transmission and activate emergency brake.

If resistance is not felt, trailer may not be coupled correctly. Do not continue applying forward pressure, immediately stop and back towing vehicle into original position. Do not allow the truck and trailer to separate. Separation can cause damage to the towing vehicle, 5th wheel hitch and / or trailer. Serious injury or death may result if all warnings are not observed.

Review coupling instructions, apply corrective action and repeat coupling steps.

Preparing to tow

Confirm handle safety latch pin has been installed.

Attach electrical harnesses.

Attach lanyard and insert electric brake break-away plunger. If hydraulic surge brakes are present, attach lanyard from the surge brake assembly as required.

Fully retract front trailer lifting jacks.

Close truck tailgate or reinstall tailgate as required.

Remove tire chock blocks.

Check running lights, directional signals and brake lights for proper operation.

Pull forward a few feet and apply brakes to check that trailer brakes are activating. Adjust the electric brake controller if necessary.

UNCOUPLING & RESETTING

Step 1

Park on a firm and level surface. Set automatic transmission vehicles to park and activate emergency brake. Set standard transmission vehicles to neutral and activate emergency brake.



Chock the trailer wheels. Multiple wheel chocks should be used, both in front and behind the tires. Do not substitute objects such as stones, wood blocks, etc.



Disconnect all harnesses, lanyards, safety devices, etc. as required to separate the trailer from the tow vehicle. Lower or remove truck tailgate as required.



Begin extending the front trailer lifting jacks. The lifting jacks should be extended just enough to remove the weight of the trailer from the 5th wheel skid plate.

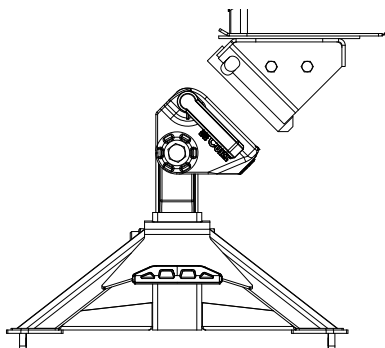
Note: Do not lift rear of vehicle with trailer jacks as this will make it difficult to pull handle out.

Step 2

Remove the safety pin on the 5th wheel's handle.

Push handle in and turn counterclockwise until rotation stops. Then pull handle completely out.

Lower jacks until trailer coupler clears hitch coupler.



Step 3

Remove the parking brake and slowly drive the tow vehicle out from under the trailer. If resistance is encountered, determine the corrective action and repeat uncoupling steps.

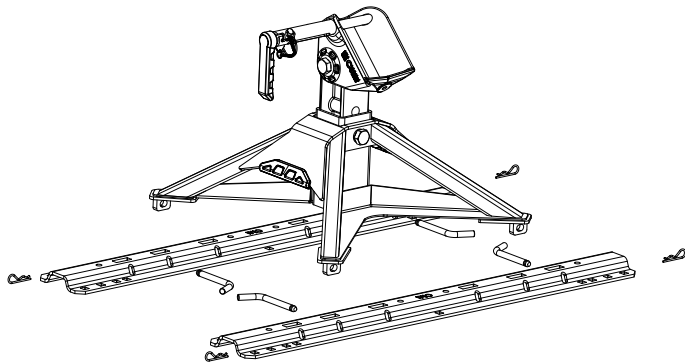


REMOVE & REINSTALL

Removal

To remove the entire 5th wheel hitch from the base rails, follow the steps and diagram below.

1. Remove the base rail pins & clips.
2. Remove the 5th wheel unit from the base rails.



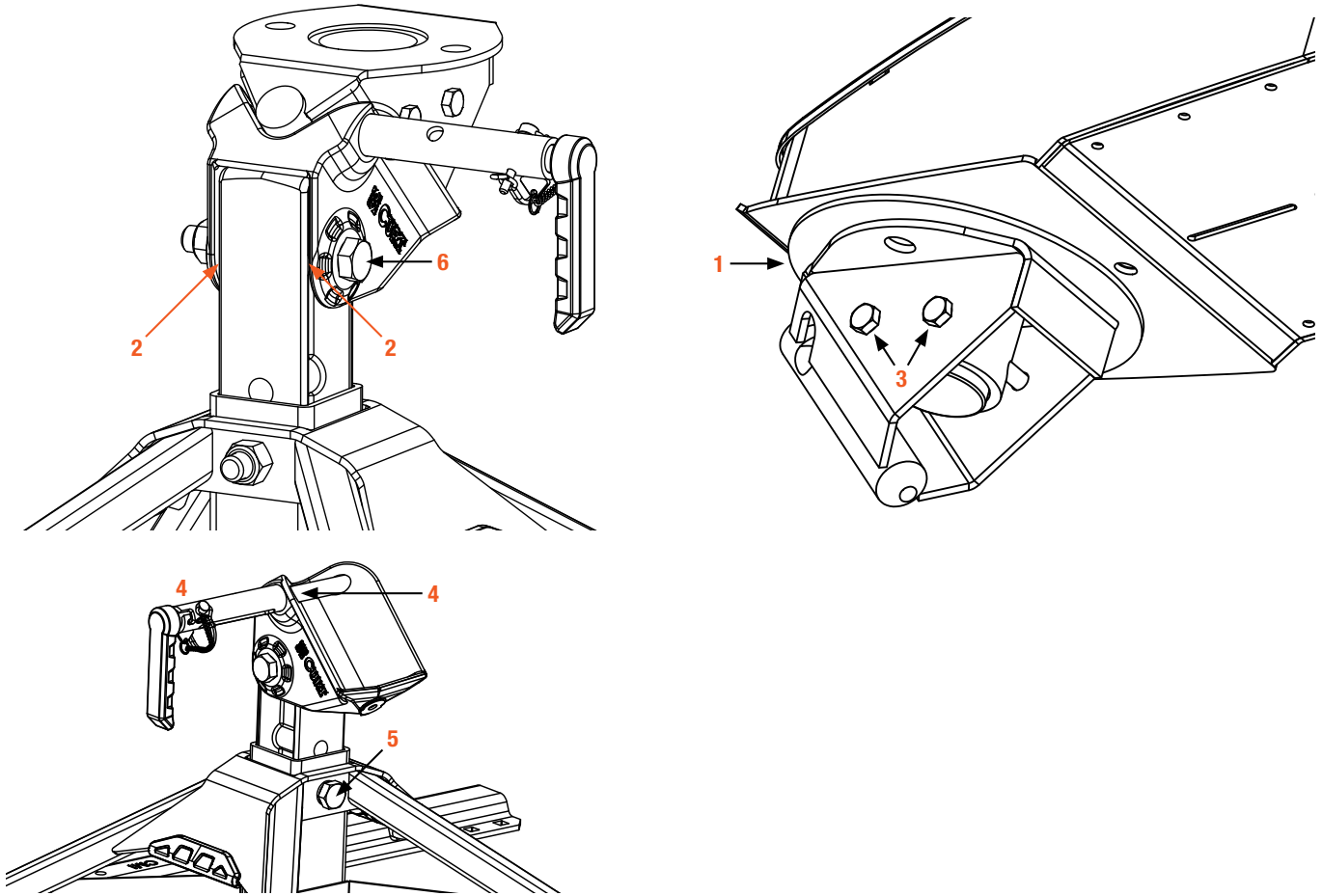
Re-installation

Reinstall the 5th wheel in the reverse order it was removed.

MAINTENANCE

Maintenance

The CURT 5th wheel hitch has been designed to offer years of safe and reliable service. To achieve the best performance and the longest possible service life, please follow the maintenance schedule below.



Component	Frequency	Instructions
Inspect lube plate	Before each use and every 1,000 miles	Inspect the condition of the lube plate (#1). If worn replace with (CURT# 16722)
Lubricate the head pivot point	Before each use	spray light dry film lubricant (#2)
Torque the 1/2" bolts	Every 1,000 miles	Torque the two 1/2" hex bolts (#3) to 65 ft-lbs. Re-torque after initial 500 miles and every 1,000 miles thereafter.
Handle pin	Before each use	spray light dry film lubricant (#4)
Torque lower M20 bolt	Before each use and every 1,000 miles	Torque lower bolt to 300 ft-lbs (#5)
Clean the 5th wheel hitch	After each use and before long term storage	For optimal service life, clean your 5th wheel hitch after each use with warm soapy water and dry with towels or compressed air. It is also recommended that the 5th wheel is removed from the vehicle or covered when not in use for extended periods of time. Spray exposed surfaces with a light coat of rust inhibitor before long term storage.

⚠ WARNING

Do not torque upper M20 head pivot bolt (#6) nut is designed to only make contact but not apply clamping force. If bolt is torqued it could cause bolt to fail causing hitch separation during use leading to severe injury or death. If hitch head appears loose the 20mm bolt can be removed and inspected for damage if any cracks or damage is visible immediately discontinue use of hitch.