



TRUNNION STYLE

OWNER'S MANUAL

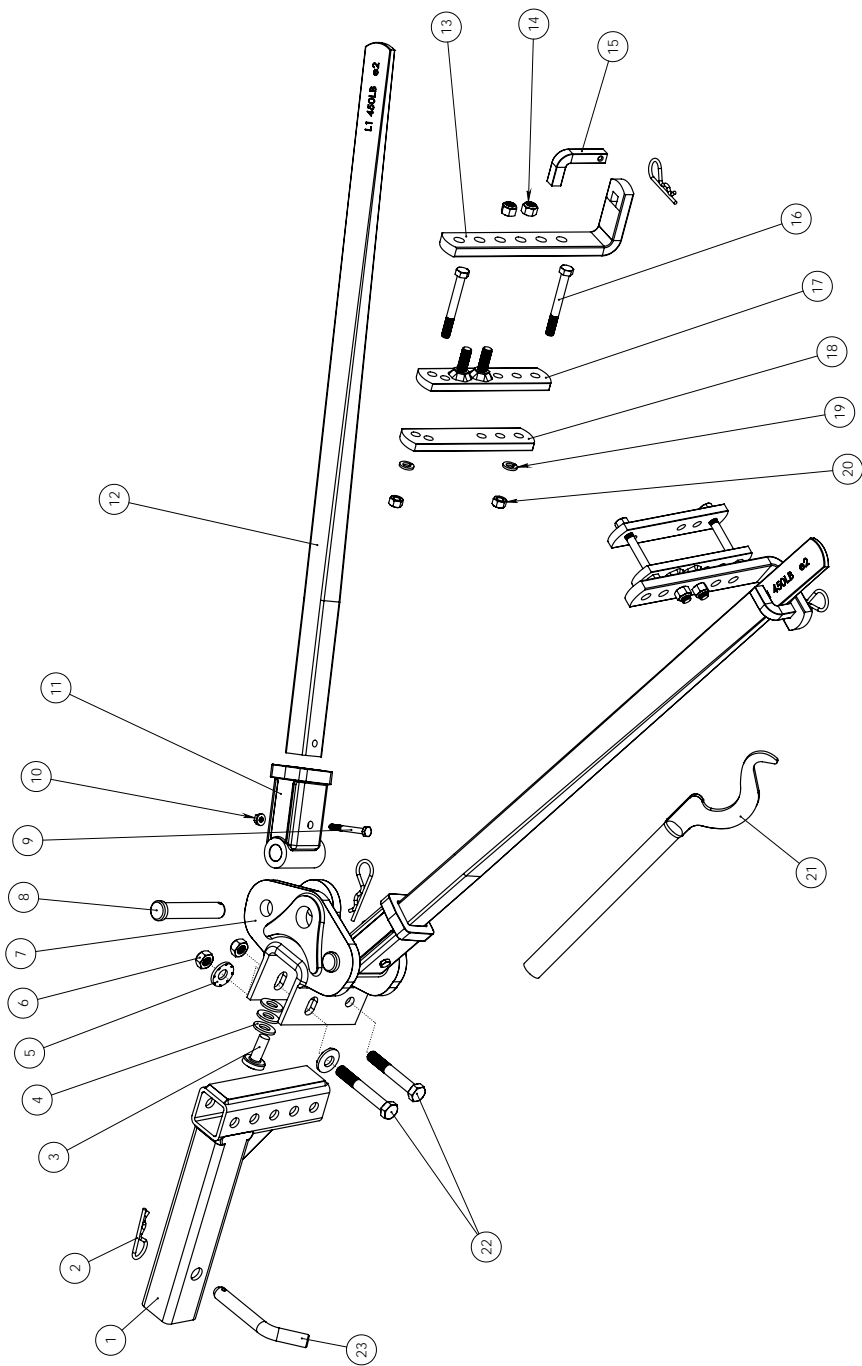


92-00-0450

450 lb. max loaded tongue weight

4,500 lb. max loaded trailer weight

Congratulations on your purchase of a new e2™ [trunnion hitch](#). Read this owner's manual thoroughly to become familiar with proper set-up and maintenance procedures. This will ensure that your e2 hitch will give you maximum performance and years of service. KEEP THIS MANUAL in a safe place as a reference for regular adjustment and maintenance.



Item No.	Part No.	Description	QTY.
1	92-02-4141	ADJUSTABLE SHANK	1
2	92-04-9705	HAIRPIN COTTER PIN	5
3	92-04-9710	RIVET PIN	1
4	92-04-9110	1/2" HARDENED FLAT WASHER	3
5	92-04-9721	1/2" CONICAL WASHER	2
6	92-04-9732	1/2"-13 LOCKNUT	2
7	92-02-0410	HITCH HEAD	1
8	92-04-9743	3/4" X 4" CLEVIS PIN	2
9	92-04-9754	1/4"-20 X 2-1/4" HEX BOLT GRADE 5	2
10	92-04-9765	1/4"-20 FLANGED LOCKNUT	2
11	92-02-0444	TRUNNION KNUCKLE	2
12	92-02-0499	SPRING BAR	2
13	92-02-5140	L-BRACKET	2
14	92-03-9486	7/16"-14 NYLOCK NUT GRADE 5	4
15	92-03-9460	L-PIN	2

Item No.	Part No.	Description	QTY.
16	92-03-9470	3/8"-16 X 3-1/2" HEX BOLT GRADE 5	4
17	92-02-5354	OUTSIDE LINK PLATE	2
18	92-02-5240	INSIDE LINK PLATE	2
19	92-03-9490	3/8" SPLIT LOCK WASHER	4
20	92-03-9475	3/8"-16 NUT GRADE 5	4
21	92-02-6040	SNAP-UP LEVER	1
22	92-04-9787	1/2"-13 X 3-1/2" HEX BOLT GRADE 8	2
23	92-04-9700	HITCH PIN	1

HITCH RATINGS – Model 92-00-0450

Used As Weight Distributing:

450 lbs. maximum tongue weight

4,500 lbs. maximum gross trailer weight

Used As Weight Carrying Only:

250 lbs. maximum tongue weight

2,500 lbs. maximum gross trailer weight

TOOLS NEEDED FOR INSTALLATION

The following tools will help you to install your hitch.

- (2) 3/4" Socket or Box End Wrenches (Shank Bolts)
- (1) 5/8" Socket or Box End Wrench (L-brackets)
- (2) 9/16" Socket or Box End Wrenches (Link Plate Bolts)

Measuring Tape

Pencil

Torque Wrench capable of 90 ft-lbs. of torque. (Shank bolts)

Recommended tools for installing the Hitch Ball:

1-1/2" Socket

Torque Wrench capable of reaching torque specifications recommended by hitch ball manufacturer.

Warning Stickers



Arm Sticker

ATTENTION

Changes in tow vehicle & trailer loading can change weight distribution requirements and vehicle handling.

For best performance check your hitch setup often. Verify that proper weight distribution is achieved. Refer to owner's manual.

e2TN_1012

Head Sticker

Important Safety Information

Failure to follow all safety warnings may result in severe injury or death.

! WARNING

Read, understand, and follow all safety warnings, setup, use, and maintenance instructions of your trailer, tow vehicle, and hitching equipment before installing your hitch or towing your trailer.

Never cut, weld, grind, bend, or modify hitch components in any way.

It is the driver's responsibility to adjust equipment and driving habits to match towing conditions. The driver is responsible for their own safety and the safety of passengers.

Never exceed the specified weight ratings for the trailer, tow vehicle, hitch, hitch ball, or any other towing equipment.

No hitch setup guarantees that trailer sway will be altogether avoided.

Always load trailer correctly. Follow trailer and tow vehicle manufacturer's recommendations for placement and quantity of cargo.

Towing with too little tongue weight may cause a loss of control and result in property damage, injury, or death. A minimum tongue weight of 10% of the total trailer weight is recommended to improve trailer stability.

Always use a hitch ball with a rating that equals or exceeds the trailer Gross Vehicle Weight Rating (GVWR). Always use a hitch ball size that correctly matches your trailer coupler size and make sure it is coupled securely before towing.

Measuring weight distribution setup well does not ensure safe towing. The operator is responsible for making necessary adjustments to the hitch to optimize weight distribution and sway control. Each trip is different, and the weight distribution setup and towing performance should be evaluated by the operator and adjusted when necessary.

Never tow with your hitch adjusted incorrectly.

Check all hardware before each trip. Do not tow your trailer until all bolts and nuts have been checked for wear and fatigue, are properly tightened, and all pins and clips are securely in place.

Do not tow your trailer through profound ditches, dips, or swales. Excessive strain on the spring arms and hitch head may cause hitch fatigue or failure.

Replace all worn, faded, or unreadable warning stickers on the hitch immediately.

Do not transfer hitch to a different tow vehicle or trailer without re-adjusting the hitch.

CAUTION

Do not loosen or remove any part of the hitch while the hitch is under load. For hitching and unhitching, use tongue jack to unload hitch first.

Always secure tow vehicle and trailer with parking brake and wheel chocks before setting up or adjusting hitch.

Important Hitch Information

Weight Distribution:

Weight distribution is the ability of a hitch to transfer some of the tongue weight of the trailer ahead to the tow vehicle axles, and backward to the trailer axles. Without weight distribution the tow vehicle “teeter-totters” on the rear axle of the tow vehicle, and unweights the front axle. Proper weight distribution transfers weight back to the front steering axle, forcing it back to the ground.

Proper weight distribution also adds performance to the integrated sway control feature of your e2™ hitch. The e2 hitch requires a minimum tongue weight of at least 10% of the gross trailer weight. This tongue weight gets distributed, and helps generate the friction needed to reduce trailer sway.

Sway Control:

Integrated sway control is a built-in, patent pending feature of your e2 hitch. Unlike conventional chain style weight distribution hitches, e2 hitches have Integrated Sway Control™ features. You do not need to purchase, install, store, or hook up any additional hardware to get the benefits of this sway control. Once the spring arms are tensioned, the Integrated Sway Control™ is in force.

Integrated sway control on the e2 hitch works through the connection between your spring arms and L-brackets. The force required by the hitch to distribute weight rests on the L-brackets through the spring arms. The e2 hitch takes advantage of the steel-on-steel friction generated at these points to help reduce trailer sway.

This added friction makes it more difficult for the trailer to sway side-to-side while its being towed, as sometimes happens when you encounter things like a gust of wind, or passing semi. When set up well and properly adjusted for your load, the e2 hitch can noticeably reduce sway through good weight distribution and the friction of Integrated Sway Control™.

Important Setup Information:

These instructions are a guideline to aid in setting up your hitch. Every trailer and tow vehicle combination requires a different setup and adjustment because of factors like trailer weight and length, trailer loading, hitch weight, and

tow vehicle suspension and wheelbase. It is not likely that a good setup for one vehicle combination will work well for another. If you change tow vehicle and/or trailer, you should change the hitch setup too.

You must use your own best judgment to determine if changes to the setup are required to ensure a safe and comfortable towing situation. There is no all-inclusive formula for setting up or adjusting a hitch that will accommodate each combination of trailer and tow vehicle possible.

The setup may need to be changed slightly at times to accommodate changes in your towing configuration, perhaps even during the same trip. For example, a trailer that starts with full clean water and propane tanks, may tow differently when that water becomes black and grey water, and the propane tanks are empty. Or, a trailer loaded with gear for a long cross country trip may tow differently than the same trailer loaded for a weekend getaway. The driver must be conscious of these changes, and adjust the hitch accordingly.

A good hitch setup will help bring the tow vehicle & trailer back to level. It will bring the front of the tow vehicle back down. The trailer should be very close to level, or parallel to the ground. The rear of the tow vehicle will sit slightly lower than its uncoupled height, but noticeably higher than its height when coupled without weight distribution engaged.

There is no such thing as a “perfect” setup. The hitch should be set up to get the best results possible, and then adjusted as necessary for the best performance possible. You, as the operator, are responsible for your safety, and the safety of your passengers. Always follow all of the safety precautions described in this owner’s manual.

Remember, no setup guarantees that sway and other towing hazards will be altogether avoided. However, when set up and adjusted properly, we are confident that you will experience a much safer and more comfortable towing experience than you would if towing without a Fastway e2™ hitch.

Step 1 - Setup Location:

While installing or adjusting the hitch, the tow vehicle and trailer should be loaded just as they will be while traveling. This includes full propane and fresh water tanks, and any other cargo (passengers & gear) the tow vehicle or trailer will carry, including ATVs for toy haulers. Tow vehicle “auto-level” systems should also be disabled or turned off during hitch setup.

Park the trailer and tow vehicle on level ground and in line with each other. Chock and uncouple the trailer. Pull tow vehicle ahead about 5 feet to allow working area and set the parking brake.

Level the trailer. Measure the FRONT and BACK of the trailer frame, and adjust the trailer to be parallel to the ground. Both FRONT and BACK measurements should be the same.

⚠ WARNING

Never exceed the specified weight ratings for the trailer, tow vehicle, hitch, hitch ball, or any other towing equipment.

Step 2 - Install the Hitch Ball:

Remove the hitch head from the packaging and install a properly-sized hitch ball (not included). Ball diameter must match trailer coupler size.

Select a ball with a **1" diameter** threaded shank. If your hitch ball has a smaller diameter shank you **must** use an appropriate bushing. Make sure that the ball has a weight rating equal to or greater than your trailer's gross vehicle weight rating (GVWR). Always use a lock washer against the nut, unless otherwise specified by ball manufacturer. Torque nut to ball manufacturer's specifications.

Whichever brand of hitch ball is used, make sure that it meets coupler and shank diameter size requirements and meets or exceeds all weight ratings. Hitch balls require a 1-1/2" socket and a torque wrench capable of approximately 325 ft-lbs. torque for installation. Your nearest Fastway e2 dealership will have the tools needed and will usually install the hitch ball for a reasonable fee.

Step 3 - Attach Hitch Head to Shank:

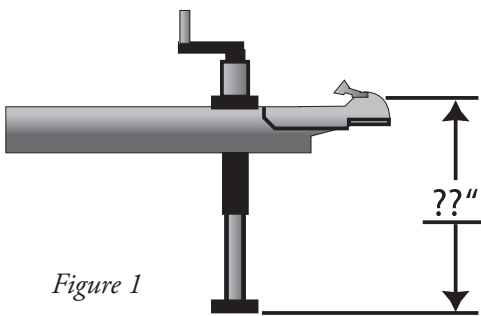


Figure 1

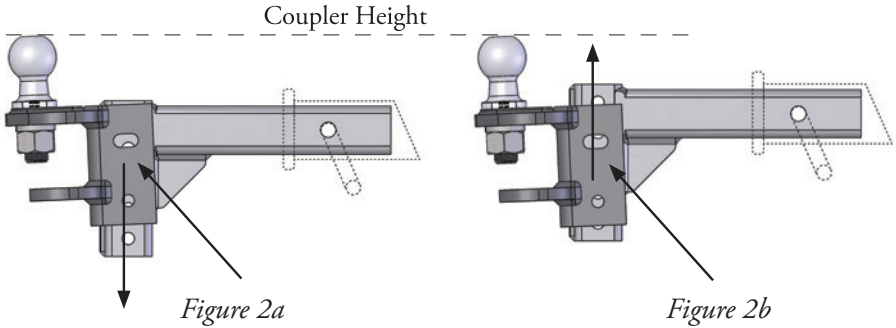
With the trailer parallel to the ground, measure from the ground to the inside top of the trailer coupler. See Figure 1. The hitch ball should initially be placed as close to this height as possible.

Trailer Coupler Height: _____

Insert the adjustable shank into the receiver on the tow vehicle and secure it with hitch pin and clip.

Insert the spacer rivet and spacer washers into the back of the hitch head to pre-load the angle of the hitch. If your tongue weight is less than 350 lbs. start with 2 washers. If it is over 350 lbs. start with 3 washers.

Observe where the top slot in the bolt channel aligns with the holes in the shank. See Figures 2a - 2b. If you can see any part of the shank hole that is lower than the bolt channel slot, drop the head down to align these holes for the initial setup. See Figure 2a. If you cannot see the lower hole in the shank, raise the hitch head so that the top slot aligns with the shank hole slightly above it, and use this hole for the initial setup. See Figure 2b.



In some cases, the shank may need to be turned upward so that the ball can be placed at the correct height. See Figure 3.

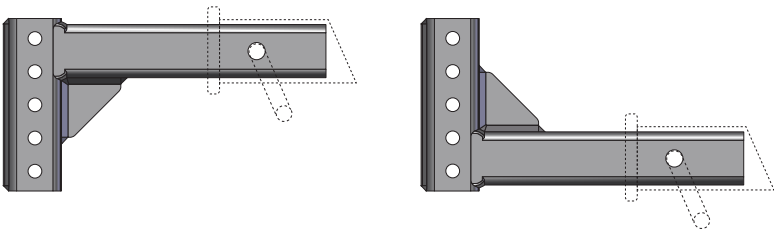


Figure 3

With the hitch head held so the ball is at the correct height for the coupler, insert a 1/2" x 3-1/2" shank bolt through the bottom holes in the bolt channel and the shank and thread on a 1/2" nut. There are no washers for this bolt.

Slide the second shank bolt through a conical washer with the widest side (concave) away from the head. Then slide the bolt through the top slots in the bolt channel and shank. Place the other conical washer and 1/2" nut onto the bolt with the concave side of the washer facing the bolt channel. Finger-tighten both nuts.

See Figure 4.

Remove the head and shank from the receiver, flip them over so the ball is down, and re-insert them into the receiver, so that the weight of the hitch head forces it down against the spacer rivet and washers, holding them in place. Insert the hitch pin to hold the shank in place while you tighten the bolts.

Tighten the shank bolts until they grip the shank tight enough that the head will not drop away when turned upright, but no more. This will make it easier to remove and adjust them later on if necessary for weight distribution set up.

After tightening the bolts, turn the hitch head assembly over again to be right side up, and insert the hitch pin again to hold it while you set up the weight distribution.

NOTE: The shank bolts will be fully tightened at the end of the set up and adjustment process.

The wide (concave) end of the conical washer should be placed against the bolt channel of the hitch head.

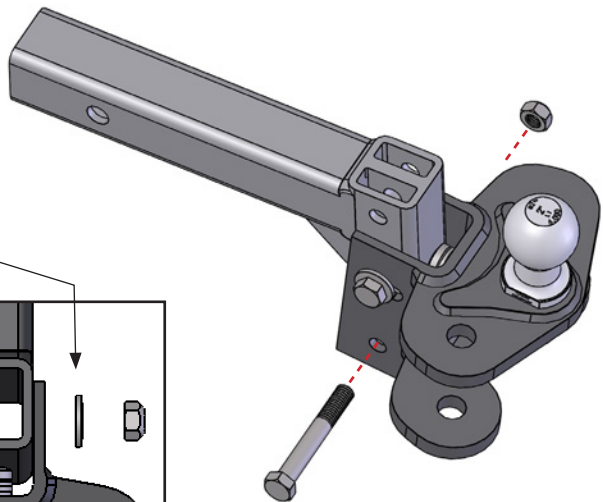
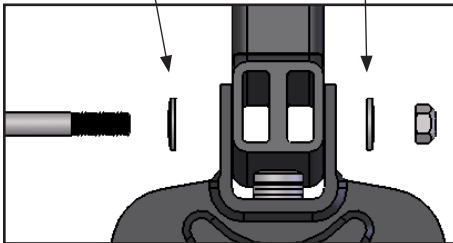


Figure 4

Step 4 - Sway Bracket Assembly Set Up:

Measure from the center of the coupler along the trailer frame, and place a mark at 30" on both sides. This is typically the center mark for the sway bracket assembly.

Check around the trailer frame and make sure that there are no gas lines, brake lines, or electrical wiring that could be affected by the installation of the link plates. If so, make sure these are re-routed or avoided and will not be disrupted or damaged by the link plate installation.

In some cases where there is an obstruction at 30" that cannot be avoided, the link plates may be moved forward up to a minimum distance of 25" from the center of the coupler. See Figures 5 and 6.

Identify the coupler style that most closely matches your trailer. See Figure 7.

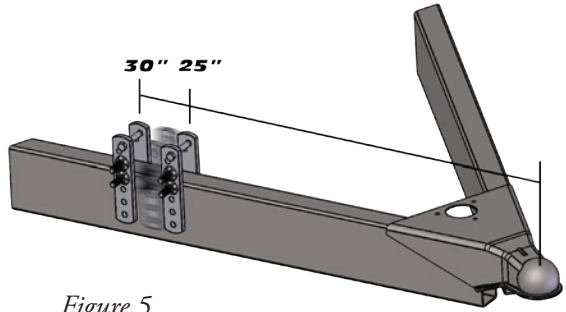


Figure 5

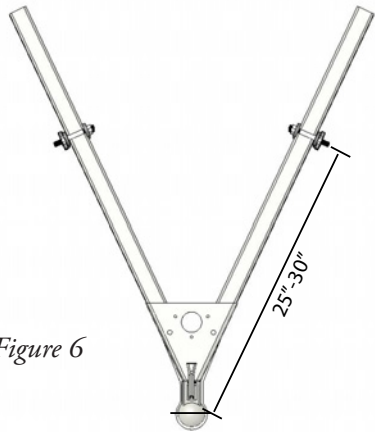
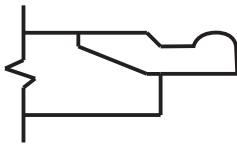
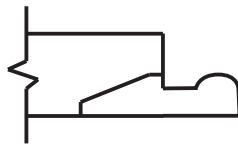


Figure 6



Top Mounted Coupler



Bottom Mounted Coupler

Figure 7

Top Mounted Coupler = Standard Mounting Position: If your trailer has a top mounted coupler, place your link plates so that the double offset holes are above the frame, and the L-bracket studs are toward the top of the frame. See Figure 8a.

Bottom Mounted Coupler = Inverted Mounting Position: If your trailer has a bottom mounted coupler, is a V-nose trailer, or has some other obstacle that makes using the hitch difficult with the brackets mounted in the standard position; install your link plates 'upside-down' by placing them so that the double offset holes are below the frame, and the L-bracket studs are toward the bottom of the frame. See Figure 8b.

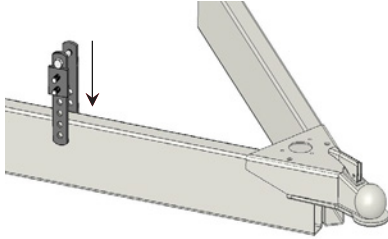


Figure 8a

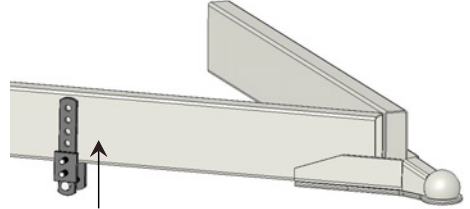


Figure 8b

Thread a 3/8" x 3-1/2" bolt through the double offset hole of the outside and inside link plates from the outside in. The head of the bolt should be against the outside link plate with the threads to the inside. Thread a split washer and nut onto end of bolt a few turns. Slide the link plates over the frame as shown so that the L-bracket studs are facing outward. Thread the second bolt through the link plate holes *closest* to the trailer frame with the head on the outside, and thread a split washer and nut onto it from the back side.

		Correct - No Gaps	Incorrect - Gaps
COUPLER STYLE	Top Mount		
	Bottom Mount		

Figure 9

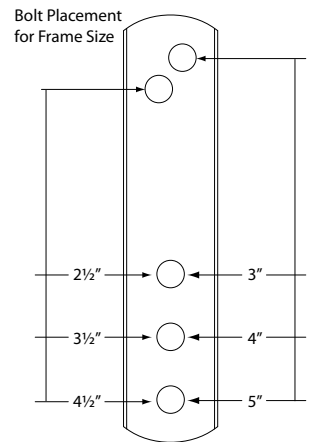


Figure 10

NOTICE

Do not use impact wrench to tighten link plate or L-bracket bolts

Pinch the inside and outside link plates tight to the trailer frame so that both lay flat against the frame. Continue holding them in place while you hand tighten both nuts. See *Figure 11*.

Use wrenches to finish tightening the link plate bolts until they are snug, alternating from top to bottom 1/2 turn at a time. Bolts and nuts should be fairly tight, but do not over tighten them.

DO NOT tighten one nut completely before tightening the other. See *Figure 12*. Doing so may cause the torque wrench to indicate the correct pressure even though the link plates are still too loose.

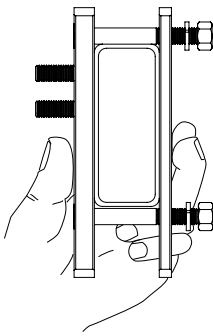


Figure 11

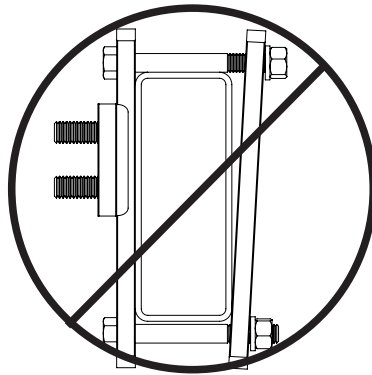


Figure 12

Slide the L-brackets onto the link plate studs with the spring arm plate facing away from the trailer. For the initial setup, leave two (2) holes showing at the top above the studs and two (2) below. See *Figure 13a and 13b*. They may need to be adjusted up or down later. Thread on the nylock nuts and tighten them so the L-bracket is held in place snugly.



Top Mounted Coupler - Figure 13a



Bottom Mounted Coupler - Figure 13b

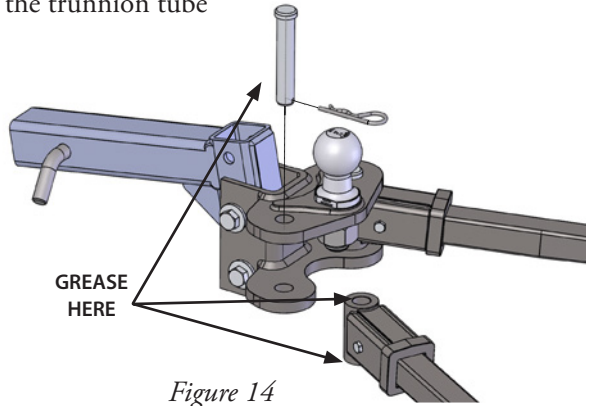
Wipe a thin layer of bearing grease around the top and bottom surfaces of the trunnion tube and 3/4" pin.

Slide the trunnion of the spring arm between the plates on the hitch head. The arm should be angled down with the bare metal surface at the end of the arm toward the ground.

Align the holes in the hitch head with the tube of the trunnion. Slide the 3/4" retaining pin all the way through, and secure it with the clevis pin. See Figure 14.

Repeat for the 2nd arm.

Wipe off any excess grease from the bottom of the retaining pins.



Step 5 - Tension Spring Arms:

To correctly set up weight distribution you must take 3 sets of measurements on your tow vehicle. First, measure without the trailer coupled. Next, measure with the trailer coupled, but with no weight distribution. Third, measure coupled with the weight distribution bars tensioned.

Start by measuring the distance from the ground to the wheel wells directly above the front axle. See Figure 15. Record this on **line A** of the weight distribution setup table in step 6.

Measure from ground to fender through the center-line of the axle.

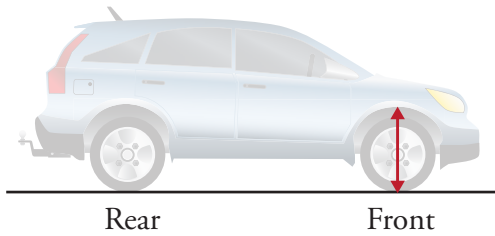


Figure 15

Back tow vehicle to the trailer and lower coupler onto ball. Lock the coupler. Continue to retract the tongue jack until it raises off the ground about 1" so that the full tongue weight of the trailer is resting on the hitch.

Measure the tow vehicle heights again exactly above the front axle, to the same point you measured earlier when uncoupled. Record this on **line B** of the weight distribution setup table in step 6.

With the tow vehicle still coupled to the trailer, use the tongue jack to lift both vehicles until you can swing the spring arms into place over the L-brackets. See Figure 16.

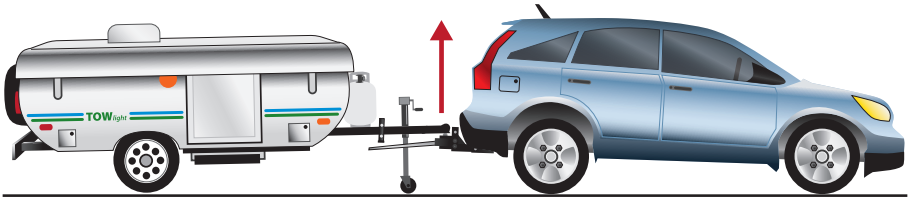


Figure 16

If you reach the top of the jack before the spring arms will swing into position, you can use the Snap-up Lever to lift the spring arms up and onto the L-brackets. Use the L-pins and clips to secure the spring arms on the L-brackets. See Figures 17a - 17b.

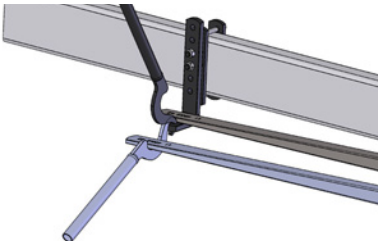


Figure 17a

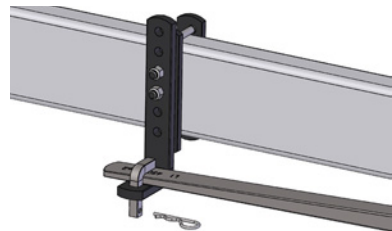


Figure 17b

With the spring arms resting on the L-bracket and the trailer and tow vehicle in line with each other, check to make sure that there is a minimum of 3" from the end of the spring arms to the center of the link plates - See Figure 18. Move and re-tighten the link plates if necessary.

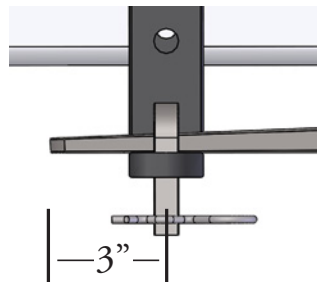


Figure 18

Step 6 - Weight Distribution Adjustments:

CAUTION

Weight distribution is only one of many things that influence sway. The operator is responsible for making necessary adjustments to all contributing factors in order to minimize sway.

Use the following guidelines to set up and adjust your e2 hitch for weight distribution. Good weight distribution is a critical component of the e2 hitch setup. A hitch that is set up poorly for weight distribution will not perform like one that is set up well. Every tow vehicle and trailer combination will react differently to weight distribution. Refer to Appendix B “Weight Distribution Adjustments” for a more detailed description of factors that influence weight distribution.

With the spring arms in place retract the tongue jack until the weight of the trailer settles onto the tow vehicle, and the foot of the jack comes off the ground about 1”.

Re-measure the tow vehicle height at the front axle exactly as done before. Record this new measurement on **line C** of the weight distribution setup table.

Weight Distribution Setup Table

	Front Wheel Well Height	FRONT	Example
A	Tow vehicle loaded for trip but still uncoupled from trailer		28"
B	Tow vehicle coupled but NO weight distribution		30"
Calculate height halfway between A and B: $(A+B) \div 2 =$			29"
C	Tow vehicle coupled with weight distribution engaged. Should be at least halfway back to A. Higher than this may still be under adjusted.		28"-29" Good <hr/> 29"-30" Need More

Good adjustment:

You have most likely achieved good weight distribution adjustment if your measurements show the following with the trailer coupled and the weight distribution engaged:

- **Line C on Front Wheel Well Measurement Chart shows.**

1. From the coupled without weight distribution measurement (Line B), the front wheel well measurement is at least halfway back to the original uncoupled measurement (Line A), but never lower.

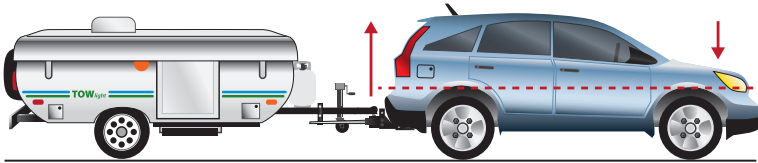


Figure 19 – Correct weight distribution

Under or Over Adjustment:

! CAUTION

Over or under adjusted weight distribution decreases tow vehicle stability.

If the hitch is transferring too little or too much weight you must make adjustments to the hitch setup. For changes during the initial setup we recommend adding or removing spacer washers first to try and keep the spring arms parallel with the trailer frame. This can give you more adjustment options if needed later.

Once the maximum (3) or minimum (0) number of spacer washers has been reached, further adjustments must be made by raising or lowering the L-brackets. Minor adjustments later for changes in loading can usually be done by moving only the L-brackets.

NOTE: The distance from the tow vehicle rear axle to the hitch ball significantly affects how the tow vehicle reacts to weight distribution adjustments. The same washer or L-bracket change will have varying results on different vehicles.

Under adjustment occurs when there is not enough weight being transferred to the front axle of the tow vehicle. See *Figure 20*.

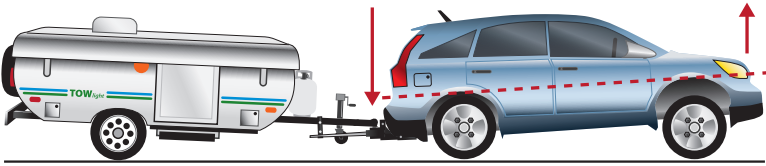


Figure 20 – Under adjustment, not enough weight distribution.

With an under adjusted setup your hitch is not giving back as much steering and braking control as it could, nor is it providing as much friction as it could to help reduce trailer sway.

- You most likely need more weight distribution adjustment if your measurements show that from the coupled without weight distribution measurements (Line B), the front wheel well measurement is **STILL HIGHER THAN** halfway back to the original uncoupled measurement (Line A). See line C on Front Wheel Well Measurement chart.
- To correct under adjustment you must add more weight distribution force to the hitch by adding spacer washers, or raising the L-brackets.
- If this is the initial set up, use the tongue jack to unload the spring arms. Remove the spring arms from the hitch head. Uncouple the trailer and pull tow vehicle forward. *Add* a spacer washer. Repeat steps 5 and 6 to re-adjust and check weight distribution.
- If you have reached the maximum number of spacer washers, or if adjusting temporarily due to a change in vehicle loading, use the tongue jack to unload the spring arms. *Raise* the L-brackets 1 hole. Move the spring arms back over the L-brackets and retract the tongue jack. Re-measure the wheel wells and check for proper weight distribution.
- Repeat this process until the measurements show that the hitch is distributing weight well.

Over adjustment:

Over adjustment occurs when there is too much weight being transferred to the front axle of the tow vehicle, and not enough resting on the rear axle. See Figure 21.

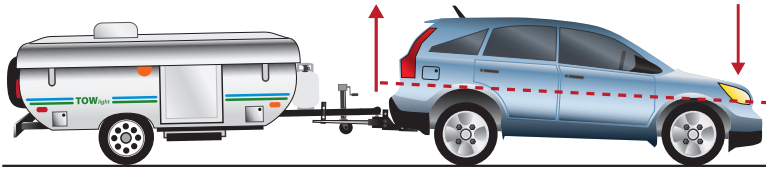


Figure 21 – Over adjustment

- Over adjustment is a rare occurrence, but it is a very dangerous situation where loss of control and jack-knifing is possible, especially in wet or slick road conditions.
- Over adjustment is more likely to occur when towing with a very short wheelbase vehicle like a small SUV.
- If the weight distribution forces the front fender measurement down lower than the original uncoupled height (Line C is less than Line A), your e2 hitch is over adjusted. To correct over adjustment you must take some of the weight distribution force out of the hitch by removing spacer washers, or lowering the L-brackets.
- If this is the initial set up, use the tongue jack to unload the spring arms. Remove the spring arms from the hitch head. Uncouple the trailer and pull vehicle forward. *Remove* a spacer washer. Repeat Steps 5 and 6 to re-adjust and check weight distribution.
- If you have reached the minimum number of spacer washers, or if adjusting temporarily due to a change in vehicle loading, use the tongue jack to unload the spring arms. *Lower* the L-brackets 1 hole. Move the spring arms back over the L-brackets and retract the tongue jack. Re-measure the wheel wells and check for proper weight distribution. Repeat this process until the measurements show that the hitch is distributing weight well.

Step 7 - Trailer Pitch Adjustment:

After achieving a good weight distribution setup you may need to adjust the pitch of the trailer. Step back and look at the trailer to see if the front appears to be tipped up or down excessively.

Measure the FRONT and REAR of the trailer again at the same points you did when setting the trailer parallel to the ground. Record these measurements on the Pitch Adjustment chart.

PITCH ADJUSTMENT CHART		example
Highest Measurement		22"
Lowest Measurement	-(minus)	18"
Difference between highest and lowest		4"

Find the difference between the highest and lowest heights.

If the difference between the highest and lowest measurement is 1-1/4" or more, you should try adjusting the hitch ball height. If it is less than 1-1/4", complete Step 8 and tow a short distance with this setup to see how it handles before making any adjustments.

If the *higher* measurement is the front of the trailer, move the hitch head down 1 hole position on the shank. If the *lower* measurement is the front of the trailer, move the hitch head up 1 hole position on the shank. You may need to flip the shank over as shown in Figure 3.

Adjustments made to ball height directly affect how weight is distributed. Moving it up on the shank slightly reduces the amount of weight distribution you get from a particular setup. Moving it down slightly increases the weight distribution.

After making an adjustment to the ball height, return to Step 6 and check the weight distribution measurements again. Re-adjust the weight distribution if necessary until it falls within the instruction guidelines. Re-check the trailer pitch again to see what difference has been made. You may need to try several setups before you get one that shows good weight distribution and trailer pitch.

Step 8 - Final Tightening:

! WARNING

Do not tow your trailer until all bolts and nuts have been checked and properly tightened, and all pins and clips are securely in place.

After you have made proper adjustments to the hitch to give your combined vehicle setup good weight distribution and trailer pitch, all bolts on the hitch must be tightened completely.

Use your tongue jack to lift the trailer and tow vehicle, and disconnect the spring arms. Lower the tongue jack and uncouple the trailer from the tow vehicle. Pull the tow vehicle forward a few feet to give yourself working room to tighten the hitch bolts.

Remove the spring arms from the hitch head. Remove the hitch pin, and turn the head upside-down so its weight holds it tightly against the shank. Re-insert it into the receiver and put the hitch pin in place to hold it while you torque the shank bolts.

Use the torque wrench to tighten the 1/2" shank bolts to 90 ft-lbs., then return the head and shank to their upright positions and re-install the spring arms.

Double check the nuts holding the L-brackets to make sure they are torqued to 45 ft-lbs., and check that the link plates are torqued to 25-30 ft-lbs.

Hitch up again with the spring arms tensioned, and the L-pins and clips securely in place. You are ready to take the trailer out for a tow.

Remember to connect the safety brake cable, safety chains, and electrical cables. Make sure your trailer brake control is correctly adjusted. Retract the jack completely. Tow carefully at first and pay attention to how it feels. Follow the Troubleshooting Guide in Appendix A which suggests ways that can help improve your towing experience.

Step 9 - Regular Maintenance:

The contact points of the head and trunnion knuckles should be kept clean and well lubricated with a good quality lubricant. They should be lubricated before each trip. Check for damage or abnormal wear at the beginning of each towing day and replace if necessary. Use a rag to clean dirt and road grit from all contact points regularly.

All nuts and bolts should be checked before each towing day and be re-tightened or replaced if necessary.

Store your hitch out of the weather when not in use. Keep it clean and free from rust. From time to time, use a good quality rust inhibiting spray paint to touch up the finish and keep it looking good. Do not paint over the warning stickers. If the warning or arm stickers become worn or unreadable, contact Progress Mfg. Inc. for free replacements.

Noise:

In some cases the friction on the L-brackets generate noise. This most commonly occurs during slow, tight turns where the tow vehicle and trailer are in a twist. This noise is normal and should be expected. It is an indication that there is friction on the L-bracket. Most of the noise will usually subside after a few uses as the hitch breaks in. Trailer and tow vehicle loading may also influence hitch noise.

Lubricating the trunnion tubes may help reduce this noise, and is part of the required regular maintenance routine. **Do Not** lubricate the L-bracket joint. This will result in reduced friction, and reduced resistance to sway.

Appendix A

<u>TROUBLE SHOOTING</u>		
Problem	Cause	Correction
Trailer Sway	Not enough Weight Distributed.	Raise L-Brackets or add spacer washers to the spacer rivet.
Remember, trailer sway is not caused by the hitch assembly. It is caused by the trailer configuration or outside forces. If you are unsure what may be causing your sway issues, contact your dealer or a hitch specialist for assistance.	Light Tongue Weight	Assure trailer tongue weight is between 10-15% of Gross Trailer Weight. Try repositioning load in trailer.
Tow Vehicle High in the Front.	Not enough Weight Distributed.	Raise L-Brackets or add spacer washers to the spacer rivet.
Front end feels “floaty”	Not enough Weight Distribution.	Raise L-brackets or add spacer washers to the spacer rivet.
Hitch Noise	Dirty Hitch, dry hitch	Clean the contact surfaces of the hitch head and re-lube the pin tube.
	Hitch Break In	Some noise is normal during hitch break in and will normally subside after some time.
	Some noise is normal.	This is a general consequence of positive sway control and the moving parts of the hitch.
Trailer is low or high in the front (pitched up or down).	Improper hitch ball height	Adjust the hitch head height on the shank.
Shifting or Moving Link Plates	Mounted too far back	Check to insure that link plate center is not farther than 30” from center of the coupler.
	Not tight enough	Torque link plate bolts to 25-30 ft. lbs.

Appendix B

Weight Distribution Adjustments:

You should carefully consider the following items and their effects when setting up initially and when adjusting your hitch before each trip:

- Rear axle to hitch ball distance: With the same adjustment, the hitch transfers more weight to the front axle if this distance is longer than shorter.
- Vehicle suspension: Soft suspensions, such as a car or crossover vehicle will react farther and faster to weight distribution adjustments than stiff or suspensions like a pickup. For a smoother ride, some vehicle suspensions are designed to be very soft with the first few pounds of payload, and to then stiffen as the load increases. This means that initially the springs move a long way with very little weight applied, then later move much less, even with a significant change in applied weight.
- Trailer length: Longer trailers will try to force distributed weight forward to the tow vehicle before absorbing it into the trailer suspension. Shorter trailers absorb more of the distributed weight into their own suspensions.
- Tongue weight: To operate effectively, your tongue weight should be at least 10% of the gross trailer weight. This provides the sway resisting friction force on the L-brackets of the hitch that give it the ability to resist movement and thus to resist trailer sway. It also indicates correct center of gravity for the trailer.
- Trailer loading: This is one of the most significant factors that influences trailer sway. Most trailers are designed to have a tongue weight of between 10% and 15% of the overall trailer weight. Always follow the trailer manufacturer's guidelines for tongue weight. Trailers that are

“back-end heavy” can often cause trailer sway. Trailer loading changes tongue weight dramatically, and loading can change dramatically from one trip to the next, or even during the course of a short weekend trip.

For example; full water and propane tanks that are tongue weight when you leave can become full waste tanks that subtract tongue weight for the return trip. Shifting just 40 gallons of water from the front to the back of your trailer can change 330 lbs. of positive tongue weight to 330 lbs. of negative tongue weight.

Rear-load toy haulers are designed to have very heavy dry (empty) tongue weights so that when they are loaded with toys they become a more balanced load.

Front-load toy haulers are exactly the opposite. They have much lighter tongue weights without toys, and then can get very heavy when toys are loaded. You must be careful not to exceed receiver hitch and tow vehicle rear axle ratings when towing a front-load toy hauler.

All toy haulers may require significant changes to weight distribution setups between towing loaded and towing unloaded.

Cargo carriers, bike racks, and second trailers (towing doubles) attached to the rear bumper of a trailer add weight to the rear of the trailer that automatically subtracts tongue weight. We recommend that you do not add weight of any form to the rear bumper of your trailer. We also recommend that you do not tow a 2nd trailer under any circumstance.

- Trailer coupled pitch: Pitch refers to the angle that the trailer is tipped to. It is generally accepted that a trailer should be towed sitting parallel to the ground, or with the front (coupler) tipped slightly down. The front tipped too far up or down may be an indication of improper trailer loading, or a need to adjust the ball height or weight distribution settings.
- Vehicle weight ratings: Each trailer and tow vehicle has a maximum Gross Vehicle Weight Rating (GVWR). They also have maximum individual Axle Weight Ratings (AWR). Never exceed these ratings. The tow vehicle and towing equipment, including receiver, shank, hitch, and hitch ball all have maximum weight ratings for tongue weight and trailer weight. These may differ when using weight carrying vs. weight distributing hitches as well. Never exceed any of these ratings.

Other Great Fastway Towing Accessories



The Fastway ONEstep™ is the fastest and easiest positive locking tandem axle wheel chock available! Simply step down on the scissor arms to firmly lock your trailer in place, and lean the cable against the tire. To remove, pull up on the cable and the chock slides right out, even if the trailer has shifted slightly. Center pin design quickly adjusts the chock from 16" to 24" to fit most tandem axle trailers. Great for travel trailers, 5th wheels, boats, cargo and horse trailers.



ONEstep™
tandem axle wheel chock



The new Fastway Zip™ breakaway cable system is the best innovation for a trailer brake in years! No dragging and frayed cables dangling over and around your trailer tongue. Cable easily stretches to reach your tow vehicle, and clips on easily with the included snap ring. When not in use, clip it to itself to keep it up off the ground and out of the way. Comes in both 4' and 6' lengths, and with or without a switch. Steel cable is coated with a UV resistant polymer for lasting protection and good looks.