



**ATTENTION DEALERS:**  
PLEASE GIVE THIS MANUAL TO  
THE END USER AFTER HITCH  
INSTALLATION.

**TRUNNION STYLE**

**OWNER'S MANUAL**



**92-00-0450**

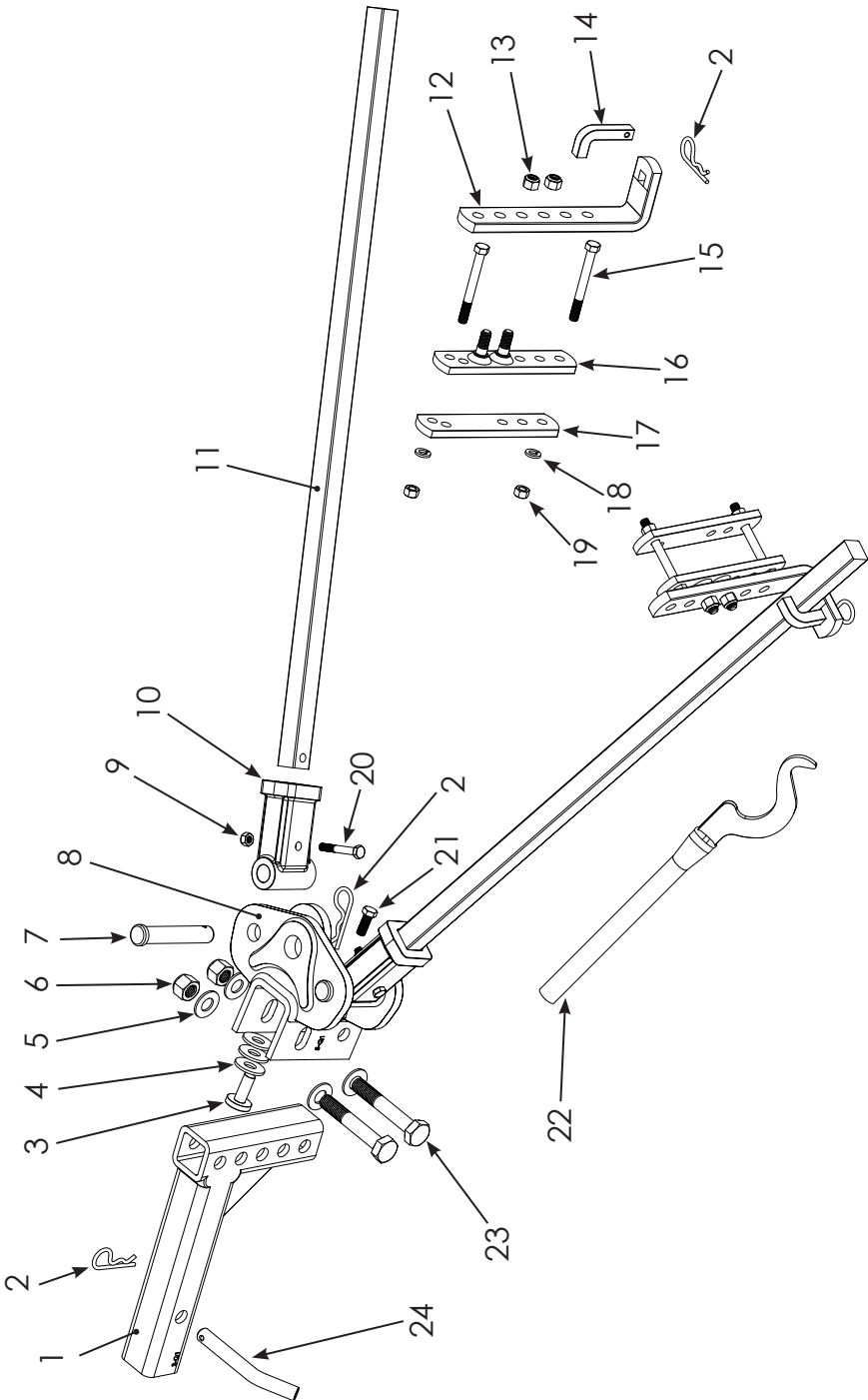
**450 lb max loaded tongue weight  
4,500 lb max loaded trailer weight**

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.

***A Product of Progress Mfg. Inc.  
877-523-9103***

**FastwayTrailer.com**

***Faster, Easier.™***



Item No.	Part No.	Description	QTY.
1	92-02-4116	ADJUSTABLE SHANK	1
2	92-04-9705	COTTER PIN	5
3	92-04-9650	SPACER RIVET PIN	1
4	92-04-9655	1/2" HARDENED FLAT WASHER	3
5	92-04-9726	5/8" FLAT WASHER	4
6	92-04-9736	M16-2 NYLOCK NUT (CLASS 8) ZINC	2
7	92-04-9743	3/4" X 4" CLEVIS PIN	2
8	92-02-0426	HITCH HEAD	1
9	92-04-9766	M8-1.25 NYLOCK NUT (CLASS 8) ZINC	2
10	92-02-0456	TRUNNION KNUCKLE	2
11	92-02-0496	SPRING ARM	2
12	92-02-5140	L-BRACKET	2
13	92-03-9486	7/16"-14 NYLOCK NUT GRADE 5	4
14	92-03-9460	L-PIN	2
15	92-03-9470	3/8"-16 X 3-1/2" HEX BOLT GRADE 5	4

Item No.	Part No.	Description	QTY.
16	92-02-5354	OUTSIDE LINK PLATE	2
17	92-02-5240	INSIDE LINK PLATE	2
18	92-03-9490	3/8" SPLIT WASHER	4
19	92-03-9475	3/8"-16 NUT GRADE 5	4
20	92-04-9756	M8-1.25 x 55 HCS (CLASS 8.8) ZINC	2
21	92-03-9746	3/8"-24 X 1" HCS (GRADE 5) ZINC	1
22	92-02-6040	SNAP-UP LEVER	1
23	92-04-9786	M16-2 X 100 HCS (CLASS 8.8) ZINC	2
24	92-04-9625	HITCH PIN	1

## HITCH RATINGS – Model 92-00-0450

450 lb maximum tongue weight  
4,500 lb maximum gross trailer weight

U.S. Pat. No. 8,833,789 and 8,628,107. Other Patents Pending

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## **TOOLS REQUIRED FOR INSTALLATION**

### **Hitch installation and adjustment:**

- (2) 15/16" or 16mm 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 and angle set bolts)

Measuring tape

Pencil

Torque wrench capable of measuring up to 130 ft-lb.

### **Hitch ball installation:**

1-1/2" socket

Torque wrench capable of reaching torque specifications recommended by hitch ball manufacturer; approximately 250 ft-lb.

# Warning Stickers

**Faster, Easier.™**

450 lb max tongue wt.

4,500 lb max trailer wt.

**HITCH™**

**FASTWAY**  
Trailer Products

**TRUNNION**  
92-00-0450

For a copy of the instructions visit  
[FastwayTrailer.com](http://FastwayTrailer.com)

**WARNING**  
Improper setup can cause severe injury or death.

- Read and follow owner's manual at all times.
- Check for proper setup before towing.

Patented

e2TR1217

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 checking the weight distribution setup and re-adjusting the hitch if necessary.**

## 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 change the way the tow vehicle and trailer are affected by the trailer tongue weight. Without weight distribution a trailer's tongue weight causes the tow vehicle's rear axle to act like the center of a teeter-totter, lifting weight off of the front axle of the tow vehicle. Proper weight distribution keeps the weight on the front steering axle, maintaining steering control and braking power.

Proper weight distribution also adds performance to the built-in sway control feature of your e2 hitch. The load on the hitch created by weight distribution generates the friction needed to combat trailer sway.

#### **Sway Control:**

Sway control is a built-in, patented feature of your e2 hitch, unlike conventional chain style weight distribution hitches. 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 built-in sway control is in force.

Built-in 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 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 it's being towed, as sometimes happens when you encounter hazards like downhill grades, crosswinds or passing a semi-truck. When set up well and properly adjusted for your load, the e2 hitch can noticeably reduce sway through good weight distribution and built-in 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 due to differences in 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.

You must use your 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 those 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 and 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 higher than the height when coupled without weight distribution engaged.

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:**

Ideally, 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 and gear) the tow vehicle or trailer will carry, including ATVs for toy haulers. If fully-loaded is not possible, set the hitch up for the trailer as-is, and make adjustments later if needed.

Tow vehicle auto-level systems should also be disabled or turned off during hitch setup. Rear axle airbags should be inflated to your desired towing pressure *before* setting up the hitch.

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 five 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). The ball diameter must match the 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 250 ft-lb torque for installation. Your nearest e2 hitch dealership will have the tools needed and will usually install the hitch ball for a reasonable fee.

### **Step 3 - Attach Hitch Head to Shank:**

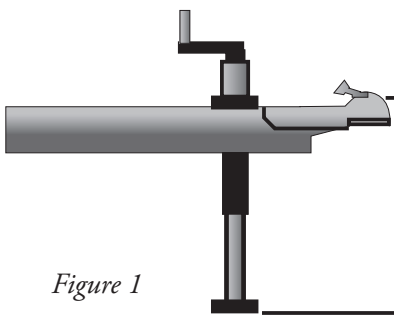


Figure 1

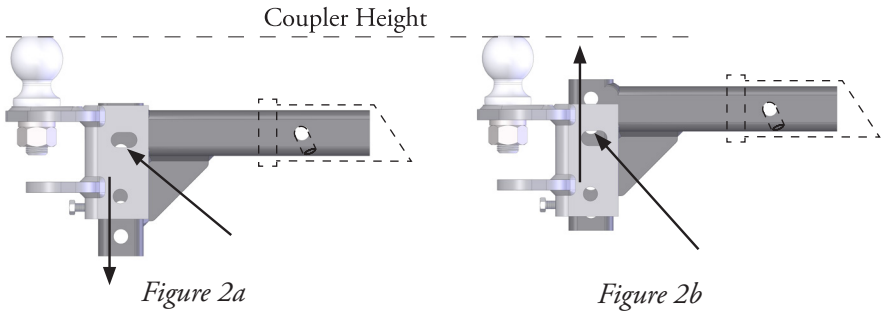
With the trailer parallel to the ground, measure from the ground to the inside top of the trailer coupler. See Figure 1. The hitch ball should initially be placed as close to this height as possible.

Trailer Coupler Height: \_\_\_\_\_

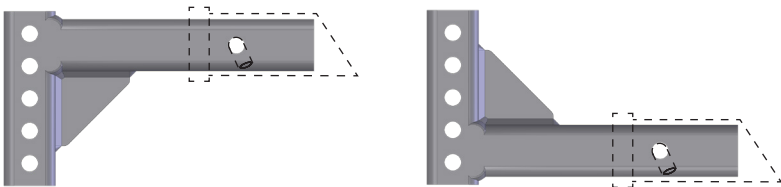
Insert the adjustable shank into the receiver on the tow vehicle and secure it with the hitch pin and clip.

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 lb, start with 2 washers. If it is over 350 lb, 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 any part of the shank hole is lower than the bolt channel slot, drop the head down to align the 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*.

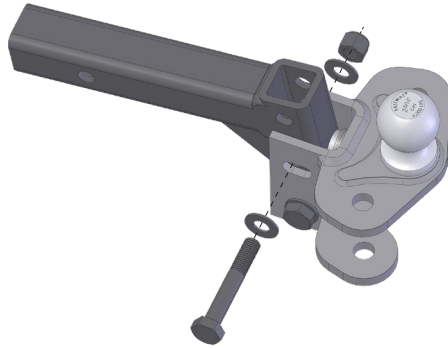


In some cases, the shank may need to be turned upward so that the ball can be placed at the correct height. See *Figure 3*.

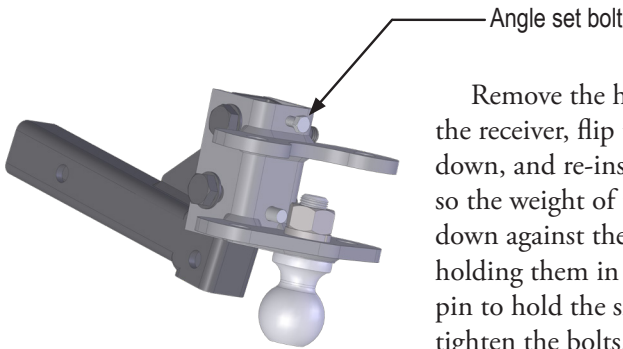


*Figure 3*

With the hitch head held so the ball is at the correct height for the coupler, insert a M16-2.0 x 100mm shank bolt through a 5/8" flat washer, the bottom holes in the bolt channel and the shank, the second flat washer, and loosely thread on a M16 nut. Repeat for the top slot in the bolt channel. See *Figure 4a*.



*Figure 4a*



*Figure 4b*

Remove the head and shank from the receiver, flip them over so the ball is down, and re-insert them into the receiver, so 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.

Use a wrench to tighten the angle set bolt until it comes into contact with the shank and holds the spacer rivet tight against the adjustable shank. Tighten the angle set bolt an additional 1/4 turn. See *Figure 4b*.

Remove the head/shank assembly and return to the upright position. Install the hitch pin and clip. The hitch head should be angled slightly downward

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

## 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 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 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.

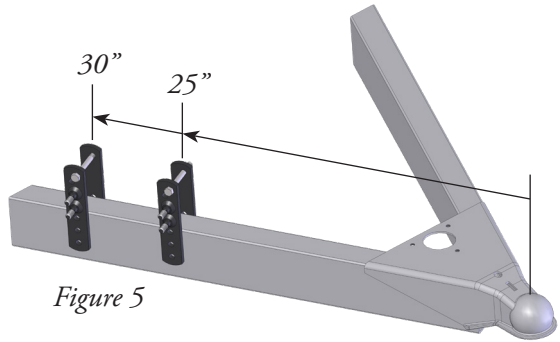


Figure 5

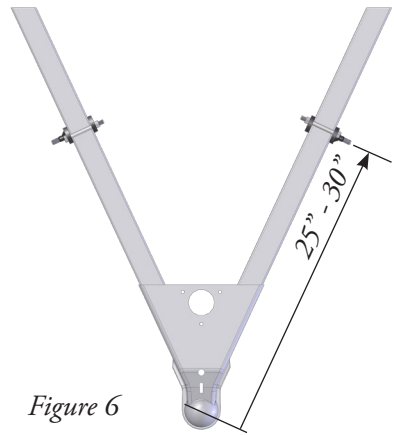
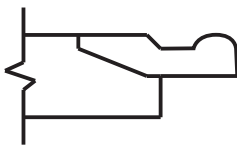
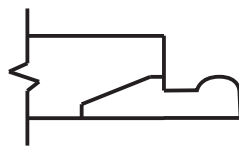


Figure 6



Top Mounted Coupler



Bottom Mounted Coupler

Figure 7

**Top-Mount 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-mount 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.

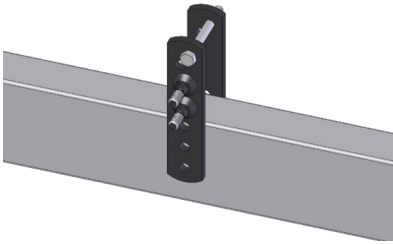


Figure 8a

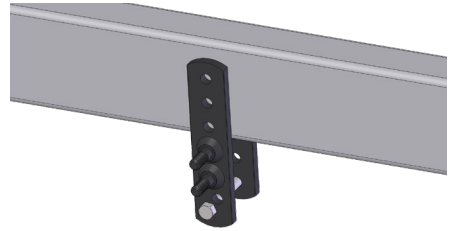


Figure 8b

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 the end of the bolt a few turns. Slide the link plates over the frame as shown so 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. See Figures 9 and 10.

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

Figure 9

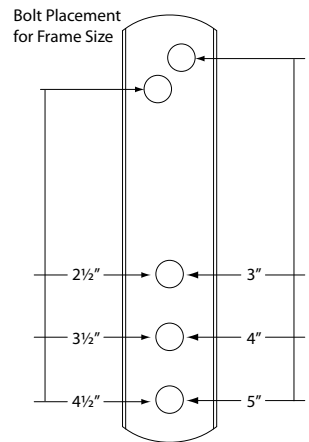


Figure 10

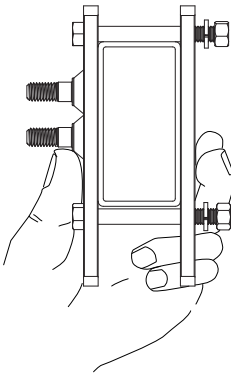
## NOTICE

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

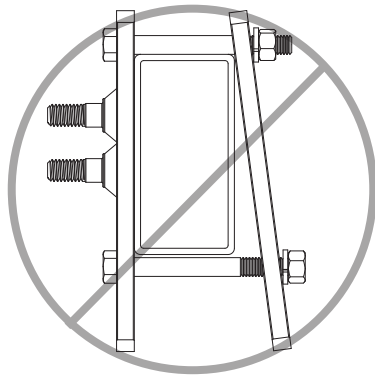
Pinch the inside and outside link plates tight to the trailer frame so that both lay flat against the frame. Continue holding them in place while you hand tighten both nuts. See *Figure 11*.

Use wrenches to finish tightening the link plate bolts until they are snug, alternating from one to the other, 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.

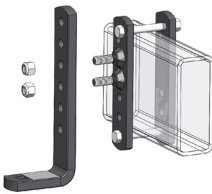


*Figure 11*



*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 firmly held in place.



*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-knuckle tube and 3/4" pin.

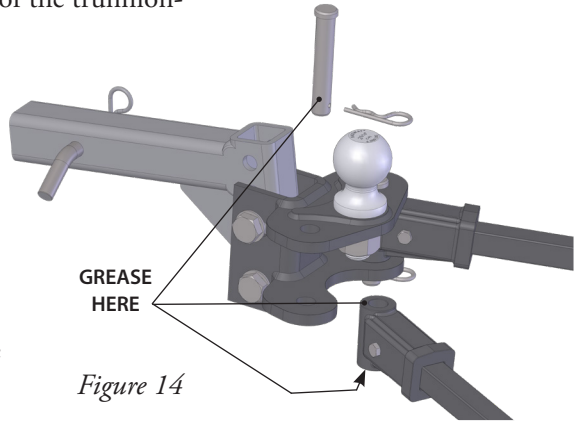
Slide the trunnion knuckle of the spring arm between the plates on the hitch head. The arm should be angled down with the bare metal surface at the end of the arm toward the ground.

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 a cotter pin. See Figure 14.

Repeat for the 2nd arm.

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

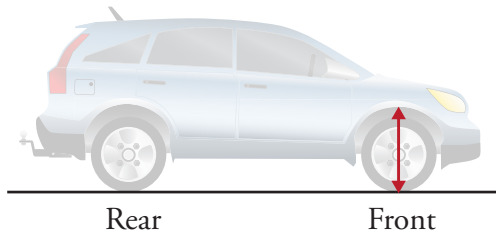


## **Step 5 - Tension Spring Arms:**

To correctly set up weight distribution you must take three 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.



Back the tow vehicle to the trailer and lower the coupler onto the 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 height 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.

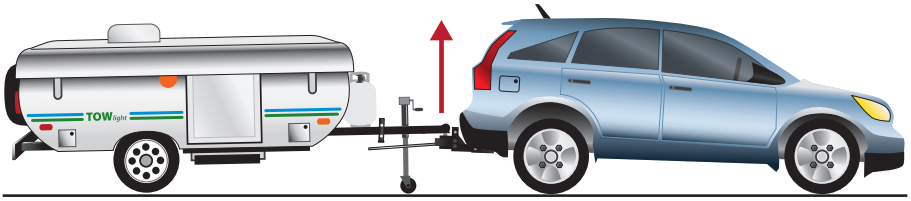


Figure 16

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

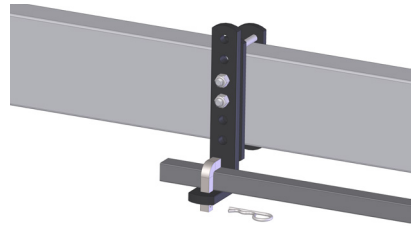


Figure 17b

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.

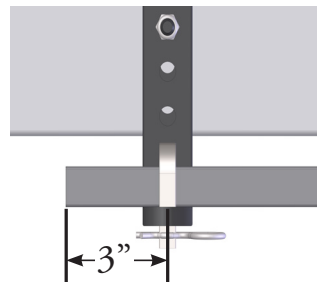


Figure 18



## 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.

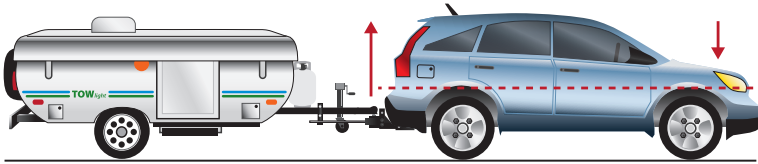
*Weight Distribution Setup Table*

	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”
<b>Calculate height halfway between A and B: <math>(A+B) \div 2 =</math></b>			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: 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**

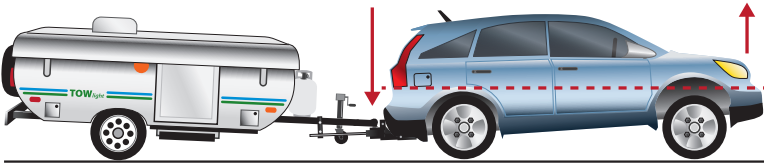
**Over or under adjusted weight distribution decreases tow vehicle stability.**

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.

For a step-by-step video showing how to install your light-duty e2 hitch visit our YouTube channel: <http://fstwy.co/45trn>

### 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.

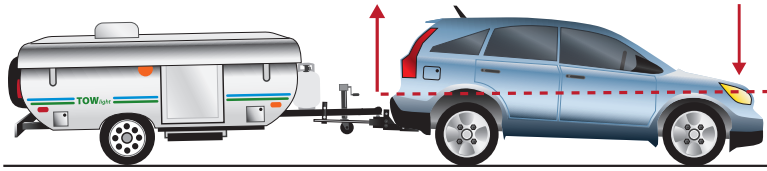


Figure 21 – Over adjustment

- Over adjustment is a rare occurrence, but it is a very dangerous situation where loss of control due to understeer or jack-knifing is possible, especially on wet or slick roads.
- 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.

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

*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 the hitch head into the receiver and put the hitch pin in place to hold it while you torque the shank bolts.

Loosen the angle set bolt 1/2 turn, then tighten the M16 shank bolts to 130 ft-lb. Return the head and shank to their upright position and re-install the spring arms.

Snug the angle set bolt by tightening it an additional 1/4 to 1/2 turn after it comes into contact with the adjustable shank. The angle set bolt should be checked and tightened again in this same manner, if needed, after the hitch's first use.

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

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 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 Fastway Trailer Products for free replacements.

### Noise:

In some cases the friction on the L-brackets generates 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.

Keeping the trunnion tubes lubricated will 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.

## **Step 10 - Hitching Up:**

Chock the wheels on both sides of the trailer.

Place the e2 hitch head assembly into the receiver hitch, and pin it into place.

Back the tow vehicle up to the trailer, and align the hitch ball directly under the socket of the trailer coupler.

Set the parking brake of the tow vehicle.

Insert the e2 hitch spring arms into the hitch head on both sides. See *Figure 22*.



*Figure 22 – Position aligned, spring arms in place*

Lower the trailer coupler onto the hitch ball, and latch the coupler so that it's locked onto the ball. See *Figure 23*.



*Figure 23 – Lower just enough to lock the coupler*

Using the tongue jack, raise the trailer and back of the tow vehicle together. See *Figure 24*. As you raise them, you will see the far ends of the spring arms raise in relation to the L-brackets. Raise the trailer until the ends of the spring arms are high enough to be pushed into place over the L-brackets.



*Figure 24 – Raise both trailer and tow vehicle to place the spring arms.*

If you reach the end of the jack's travel, you may use the snap-up lever to lift the arms into place. Using a block or a jack extension foot, like the Fastway Flip® automatic jack foot, may be helpful to get the spring arms high enough to easily move them into place.

Swing the spring arms into place over the L-brackets, and secure them with the L-pins.

Raise the jack, lowering both the trailer and tow vehicle together, until the jack is completely retracted and ready for travel. See *Figure 25*.

The spring arms are now engaged, and are distributing weight to the front axle of the tow vehicle, as well as providing the built-in sway control protection.

The hitch is now ready to tow.

Secure the safety chains, breakaway cable, and wiring harness. Remove the wheel chocks, and make any other necessary preparations before towing.

## **Step 11 - Unhitching:**

Maneuver the trailer into the desired parking position.

Set the parking brake on the tow vehicle, and chock the wheels on both sides of the trailer.

Unhook the safety chains, breakaway cable, and wiring harness from the tow vehicle.

With the trailer still coupled to the tow vehicle, extend the tongue jack on the trailer to lift both trailer and tow vehicle enough that the weight is lifted off the end of the e2 hitch spring arms, and they are allowed to move freely from side to side, without being held by the friction on the L-bracket plate. See *Figure 26*.



*Figure 25 – Ready to tow.*



*Figure 26 – Raise both trailer and tow vehicle to release tension on spring arms.*

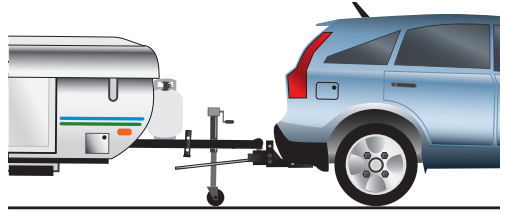


Remove the L-pins and clips.

Swing the spring arms outward, away from the frame, enough that they will easily clear the L-brackets as they are lowered.

Retract the tongue jack, and lower both trailer and tow vehicle back down until enough trailer tongue weight is resting on the hitch ball that the coupler latch can be released. *See Figure 27.*

This is usually indicated by the top of the shank slightly dropping away from the top of the receiver hitch tube.



*Figure 27 – Lower just enough to open the coupler latch.*

Release the coupler latch of the trailer.

Use the tongue jack to lift the trailer off the hitch ball. *See Figure 28.*

Move the tow vehicle away from the trailer.

Remove the spring arms from the hitch head.

Store the spring arms and hitch head in a secure location protected from moisture and theft.



*Figure 28 – Uncoupled, ready to move tow vehicle away.*

## Appendix A

<b><u>TROUBLE SHOOTING</u></b>		
<b>Problem</b>	<b>Cause</b>	<b>Correction</b>
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 / heavy back end.	Assure trailer tongue weight is between 10-15% of Gross Trailer Weight. Try repositioning the load in the 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 lubricate the knuckles and pins.
	Hitch break in	Some noise is normal during hitch break in and will normally subside after a short 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 more than 30" from center of the coupler.
	Not tight enough	Torque link plate bolts to 25-30 ft-lb.

## **Customer Service:**

For customer service, replacement parts, and accessories we recommend that you visit your local dealership that is familiar with Fastway e2 hitch products whenever possible. If at any time you need customer service and are unable to reach a dealership, please call our toll free customer support line at (877) 523-9103, or visit us online at fastwaytrailer.com.

## **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 vs. shorter.
- **Vehicle suspension:** Soft suspensions, such as a car or crossover vehicle will react farther and faster to weight distribution adjustments than stiffer suspensions like a pickup truck. 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 lb of positive tongue weight to 330 lb 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 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 not adding weight 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. 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.

## Warranty

**Limited Ten Year Warranty:** Progress Mfg. Inc. warrants the e2 hitch against latent defects in materials and workmanship under normal use and service, ordinary wear and tear is excepted, to the original owner for a period of ten years from the first date of purchase at retail up to the value of its original purchase price. If this product is latently defective it will be replaced or repaired when a proper return authorization is obtained and the product is returned with transportation charges prepaid to Progress Mfg. Inc. Progress Mfg. Inc. shall not be required to replace or repair any products damaged as a result of improper installation, alteration, unreasonable use, or improper maintenance including, without limitation, loading the product beyond the factory rated load capacity. This warranty does not include labor charges nor does it include transportation charges for returning the product to the consumer. To the extent allowed by law, Progress Mfg. Inc. shall not be liable for any incidental, consequential, or any other damages including, without limitation, breach of any implied warranty, merchantability, or fitness for a particular purpose of any e2 product. In no event shall Progress Mfg. Inc. be liable for any damages other than the replacement or repair of the affected part. Authorization and warranty procedure may be obtained by calling Progress Mfg. Inc. customer service at 877-523-9103.

**Submit your warranty registration online at *fastwaytrailer.com*.**



# Other Great Fastway Towing Accessories

The most secure and universal coupler lock available, the Fastway Fortress™ coupler lock will keep your trailer secure, providing you with peace of mind. It's made from the highest quality corrosion resistant material and fits almost every trailer coupler style.



## Chain-Up



If you are tired of the clanking, sparking, and wear of dragging safety chains, the Fastway Chain-Up™ safety sling is the fastest and easiest way to keep your trailer's safety chains from dragging. With the Chain-Up, there's no more twisting your chains to shorten them, or using bungee cords to keep them out of the way.

It's time to stop fumbling with a stack of wood blocks to stick under your tongue jack. The Fastway Flip™ jack foot extends your jack by six inches and is the only jack foot that is completely automatic. The Flip puts itself away, with no springs, cables, pins, or clips required. It automatically drops into place when you extend your jack, and tucks up out of the way when you retract it for towing. With a Flip jack foot there is no bending over or kneeling, nothing extra to store, and you save more than 100 cranks every time you use your trailer.





The Fastway ONEstep™ is the strongest, most secure 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 adjusts the chock from 16” to 24” to fit most tandem axle trailers. Great for travel trailers, 5th wheel, boat, cargo and horse trailers.



**ONEstep™**  
tandem axle wheel chock



Is your old breakaway cable dragging on the ground? Is it frayed or broken? Stop stabbing your fingers on an old rusty cable. Replace it with the Fastway Zip™ breakaway cable; the cable that doesn't drag.



The Fastway Zip keeps the cable up off the ground and out of harm's way while you're towing. And when you're not towing, the cable easily clips to itself and stays out of the way, instead of dangling all over the front of the trailer.

[fastwaytrailer.com](http://fastwaytrailer.com)

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