

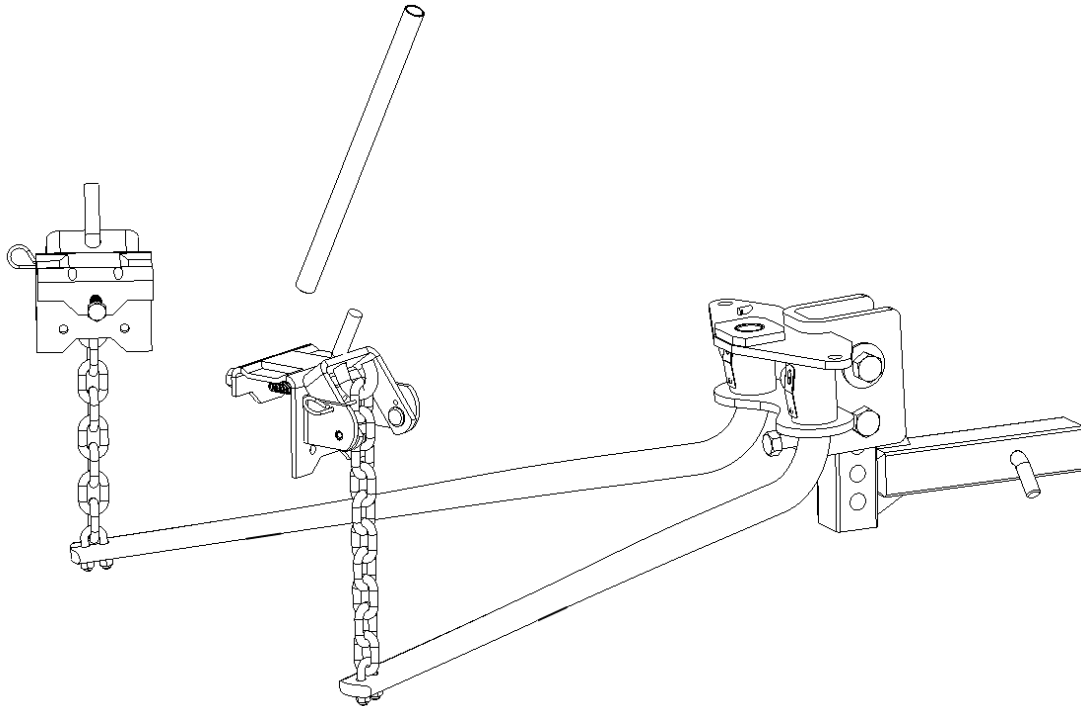


Strong As An Ox™

# Assembly, Installation, Operation and Maintenance Instructions

## BXW1200: Kits with Shank & Attached Lift Chains.

### Round Bar Weight Distributing Hitch System



#### *Rating when used as a weight distribution hitch with spring bars*

**BXW1200**

**Max. Tongue Weight**  
**801-1,200 lbs.**

**Max. Gross Trailer Weight**  
**12,000 lbs.**

**CAUTION:** *The tongue weight rating of the spring bars represents the capacity of a pair of bars, NOT an individual bar.*

#### *Rating when used as a weight carrying hitch without spring bars*

**BXW1200**

**Max. Tongue Weight**  
**600 lbs.**

**Max. Gross Trailer Weight**  
**6,000 lbs.**

*Always use a pair of spring bars and be sure they are of the same weight rating and size for your trailer.*

**READ ALL INSTRUCTIONS AND CHECK PACKAGE CONTENTS BEFORE BEGINNING INSTALLATION.**

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<b>Dealer/Installer:</b>	<b>Provide a copy of these Instructions to the end user of this product. These Instructions provide important operating and safety information for proper usage of this product. Demonstrate the proper use of the product with the end user. Have the end user demonstrate that they understand the proper use of the product.</b>
<b>End User:</b>	<b>Read and follow all instructions included in this manual. Ask your Dealer / Installer for assistance if you do not understand the proper use of the product. Never remove any warning decals from the product.</b>

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## Tools Required for Installation

The following list of tools will be needed for proper installation of all components:

Safety Glasses

1 1/8" Box End Wrench (3/4" HEX HEAD BOLTS)

1 1/16" Socket (3/4" NYLON LOCK NUTS)

3/4" Socket (1/2" HEX NUTS)

Measuring Tape

Torque Wrench capable of 260 ft-lbs of torque.

### Recommended tools for installing the Hitch Ball:

1-1/2" or 1-7/8" Thin walled socket depending on hitch ball size.

Torque Wrench capable of 360 ft-lbs of torque (always check ball manufacturer's specifications for proper torque rating).

**Definitions of terms:** When a statement like "LEFT SIDE or RIGHT SIDE OF VEHICLE" is made, this always refers to the driver's point of view, in other words, when the driver is sitting in the driver's seat of the vehicle. Other terms used are DS which means DRIVERS SIDE and PS which means PASSENGER SIDE, this is irregardless of where you are positioned inside or outside of the vehicle.

### Important!

**Before installing or towing with this Bolt Together Weight Distributing Hitch please read and follow all instructions and warnings in the tow vehicle owners manual and trailer owners manual.**

**Have gross trailer weight and tongue weight checked before selecting and installing any weight distributing system.**

**Weigh trailer again after fully loaded and check loaded tongue and gross weight to ensure proper weight distribution hitch is being used.**

### Measure Trailer Coupler & Frame Height

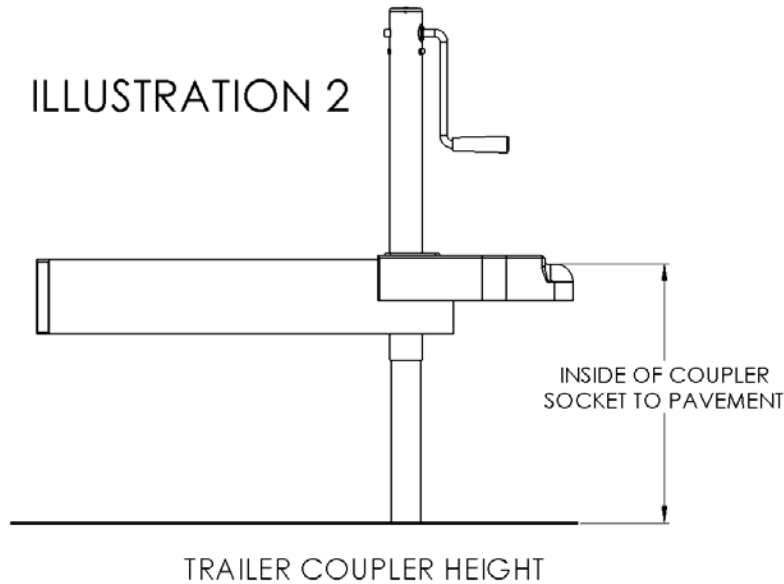
**NOTE: Changing the weight of the trailer and/or tow vehicle by adding, moving or unloading cargo may require the need to adjust how the weight distribution system is set up.**

**IMPORTANT! Set parking brake of tow vehicle and chock the wheels of the trailer before lifting!**

1. Line up the tow vehicle and trailer on level pavement, in a straight position.



- Use the trailer tongue jack to level the trailer. Measure the distance from pavement to the inside of the coupler socket and record here: \_\_\_\_\_.



- Mark a spot on the frame of the trailer as close to the coupler as you can, measure from this mark to the ground/pavement and record here: \_\_\_\_\_. This measurement will be used later to determine if a proper setup has been achieved.

#### Determine The “Target” Uncoupled Ball Height For Tow Vehicle

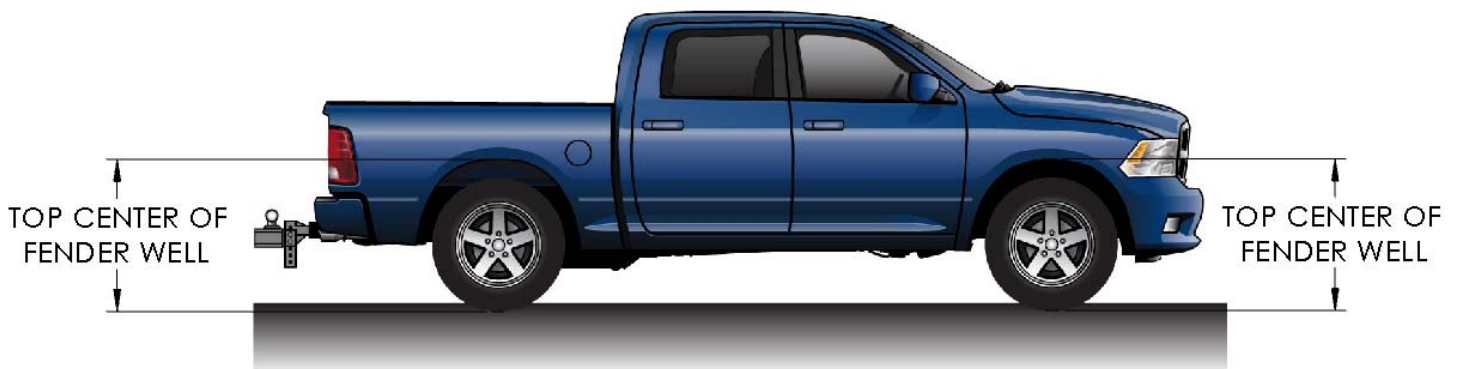
- Tow vehicle uncoupled ball height should be set 1” higher than coupler height measured in Step 2, to allow for vehicle squat when coupled to trailer. Add 1” to the measurement from step 2 and record here: \_\_\_\_\_.

#### Measure The Tow Vehicle

For vehicles with air springs, air shocks or automatic leveling systems only: Check vehicle owners manual or other instructions on these items. Unless otherwise indicated, air springs and air shocks should be deflated to their minimum recommended pressure before assembling and adjusting the weight distribution hitch. Pick reference points at the top center of the front and rear fender well of towing vehicle. Measure and record height to pavement here.

FRONT FENDER TO PAVEMENT: \_\_\_\_\_

REAR FENDER TO PAVEMENT: \_\_\_\_\_



### Install Shank, Hitch Head And Ball

5. Insert SHANK item #1(see Parts Listing pg 13) into receiver on towing vehicle and secure with HITCH PIN item #2(see Parts Listing pg 13) and HAIR PIN item #3(see Parts Listing pg 13).

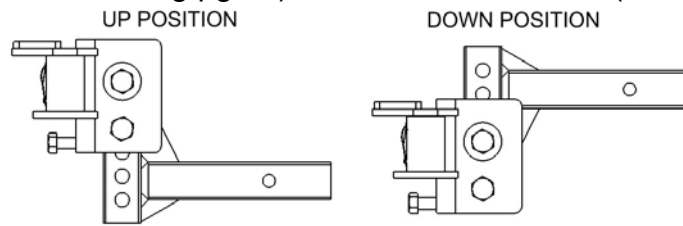
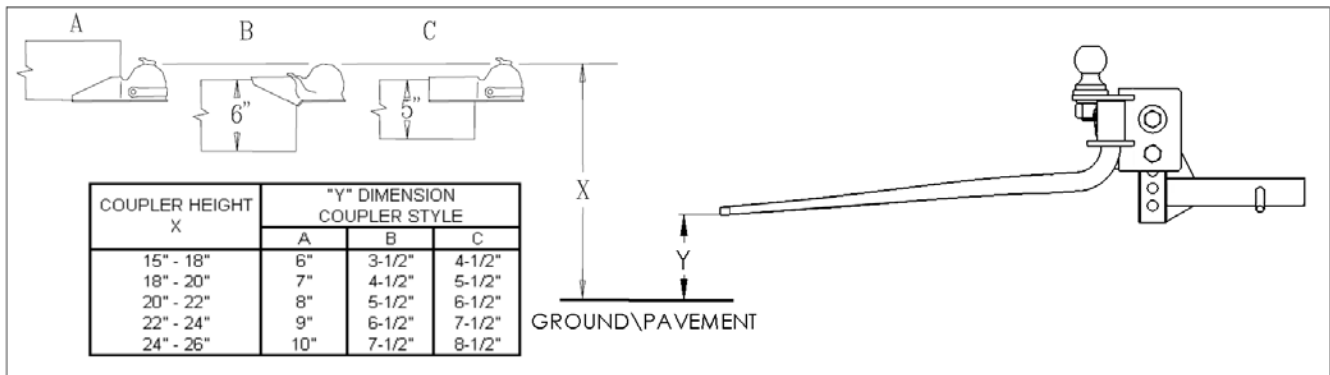


ILLUSTRATION 3

NOTE: To obtain proper ball height on low ground clearance tow vehicles, shank may be oriented in the “UP POSITION” as shown in Illustration 3. If shank is used in the “DOWN POSITION, check for adequate ground clearance. Accessory shanks with greater height and length are available from your dealer. **IMPORTANT! Proper adjustment requires the use of the proper length shank; proper head height and proper head tilt adjustment.**

6. Select a hitch ball to match the trailer coupler socket, having a 1” or 1-1/4” threaded shank and capacity exceeding the gross trailer weight. When using a ball with a 1” shank, the REDUCER BUSHING, item #15(see Parts Listing pg 13) must be placed in the ball hole in the head assembly. **CAUTION! Do not use more than one bushing.**
7. Install ball and tighten to the ball manufacturer's torque specifications.
8. Position head assembly on shank. Slide head up or down to the nearest bolt hole alignment position which corresponds with the “TARGET” ball height determined in Step 4 and Insert (1)  $\frac{3}{4}$ ” x 4.5” HEX BOLT item #4(see Parts Listing pg 13) into bottom hole of channel.
9. Place four (4) hardened washers item #7(see Parts Listing pg 13) on pin item #6(see Parts Listing pg 13) and insert pin into the unthreaded hole in the upper portion of the head channel. The number of washers may have to be changed later.
10. Rotate head up until pin head touches shank, the hitch ball should be nearly vertical or tilted slightly rearward (adjust number of washers under pin head until you get the desired angle) and then place (1)  $\frac{3}{4}$ ” x 4.5” HEX BOLT item #4(see Parts Listing pg 13) cone washer item #8(see Parts Listing pg 13) and insert into upper oval hole of channel through the corresponding shank hole.
11. Place a second cone washer #8(see Parts Listing pg 13) on upper  $\frac{3}{4}$ ” bolt and then thread  $\frac{3}{4}$ ” hex nut item #5(see Parts Listing pg 13) only finger tight to both bolts. Then insert  $\frac{5}{8}$ ” bolt item #18(see Parts Listing pg 13) into bottom hole on channel and tighten against shank, the WD head should then move upward until the pin head contacts the shank then turn the  $\frac{5}{8}$ ” bolt an additional 1/4-1/2 turn.
12. Tighten  $\frac{3}{4}$ ” lock nuts item #5(see Parts Listing pg 13) to 260 ft. lbs. torque. Skip this step if Ball came mounted on the hitch head.

Refer to "Preliminary Head Adjustment Chart," below, for determining the initial positioning of the hitch head when proceeding onto the next step.

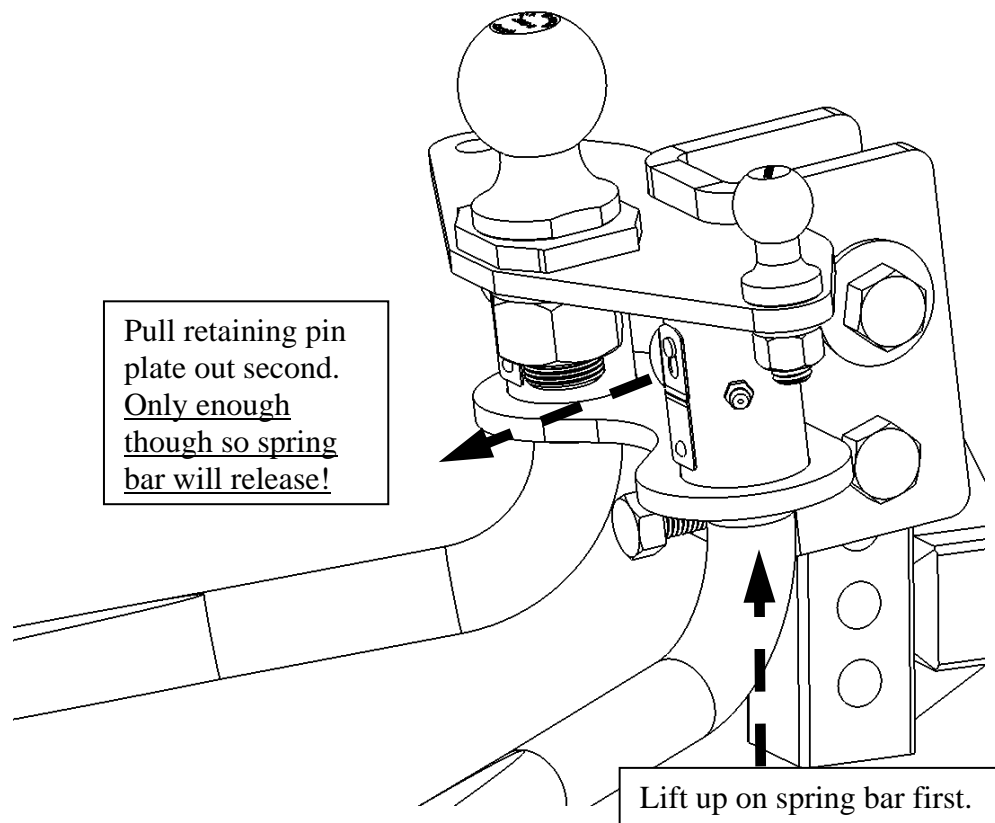


**"PRELIMINARY HEAD ADJUSTMENT CHART"**

### Install Spring Bars

1. Apply a marine grade wheel bearing grease on the round end of each spring bar and push end up into head socket until you hear a "click". This will indicate that the spring bar is locked in place.

**NOTE:** To release spring bar, lift up slightly on spring bar and gently pull out on the retaining pin in the hitch head. The spring bar should drop free of hitch head. Alternately, you can rotate the spring bar away from the trailer until it is perpendicular to the tow vehicle and you should be able to push the spring bar down to remove.



### Attaching Trailer To Ball

1. Back up the tow vehicle and align the hitch ball so that it is directly under the coupler socket (use a spotter if you have one. CAUTION! Spotter should never stand between trailer and tow vehicle during connecting). Then lower the trailer until the hitch is supporting some of the trailer tongue weight. The tow vehicle and trailer must be as straight and inline as possible.

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2. Ensure the hitch ball is completely inside the coupler socket and close the coupler ball latch if it is not yet closed. Install coupler lock or pin for safety.
3. Raise the front of the trailer and rear of the tow vehicle approximately 6"-9" with tongue jack, this will reduce the spring bar chain tension and will make the lift bracket operation easier and safer.

### Installing the Chain Lift Brackets

The following directions apply to trailers with an "A" frame tongue. If your trailer is made up with a straight tongue, you will need to obtain a "Pole Tongue Adapter" to finish the installation.

1. Position the spring bar, which has been attached to the hitch head, parallel with the trailer tongue. Hold the lift chain vertical up alongside the trailer tongue. Position the lift bracket on the trailer tongue so that the chain is centered between the lift bracket as shown in Illustration 6 below.

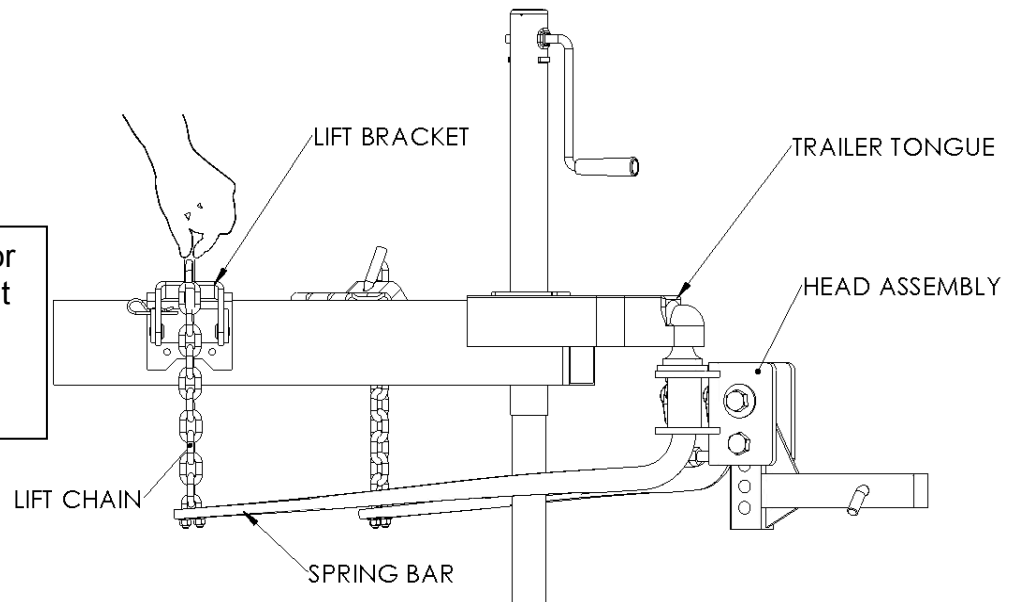


ILLUSTRATION 6

**CAUTION:** If chain is angled fore or aft at the top within the lift bracket, it may catch on the bracket when turning. This could damage the lift bracket or pry it open.

2. Mark the location of the lift bracket on the trailer tongue.
3. Turn the hex bolt located on the rear of the lift bracket until it contacts the trailer frame, then tighten  $\frac{1}{4}$  turn with a wrench. **DO NOT OVERTIGHTEN.**

### Hooking Up Spring Bars

The amount of leveling is adjusted by engaging different spring bar chain links with the lift unit. Before proceeding, read the "Lift Unit Operation" section on the following page.

1. With the lift bracket in the raised and locked position, pull straight up firmly on the spring bar lift chain. Note which link is closest to the lift bracket hook. Mark the next lower chain link.
2. Lower the lift bracket and slip the marked link over the hook. Be sure that the chain is not twisted.
3. Raise the lift bracket and secure with the locking pin. Repeat procedure on opposite side of trailer using the same number of chain links as the first side. See Illustration 7 on page 9.
4. Retract the trailer tongue jack so the hitch is now carrying the full trailer tongue weight.

## Lift Bracket Operation

**IMPORTANT! Set parking brake of tow vehicle and chock the wheels of the trailer before lifting or lowering!**

Before raising or lowering the lift bracket, ensure that the tow vehicle and trailer are in line and straight with each other. Raise the front of the trailer (should be attached to tow vehicle hitch ball) to reduce the spring bar chain tension, this will make the lift bracket operation easier and safer.

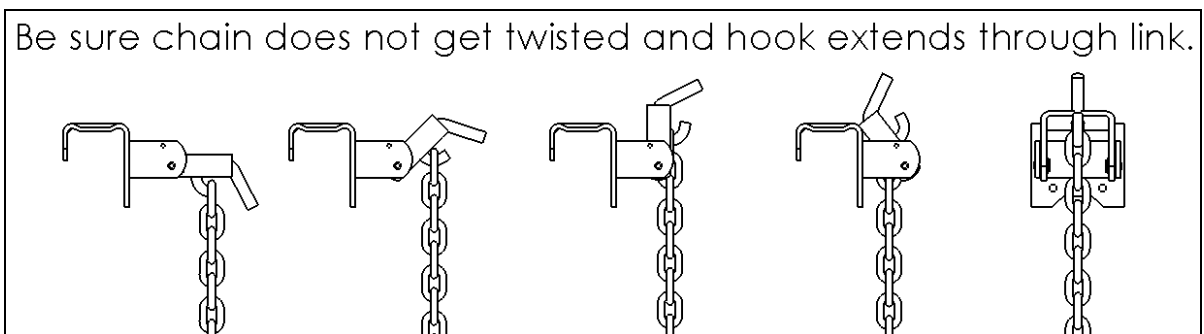
**WARNING:** Keep clear of the pivot path of all moving parts when there is tension on the spring bar chain. Maintain control of the lift handle at all times when raising or lowering the spring bar. Be sure that the locking pin is in place before leaving lift bracket in the up position.

### To Lower From Fully Raised and Locked Position

1. Remove the locking pin from lift bracket.
2. Insert lift handle onto the rod above the lift chain attachment.
3. Carefully lower bracket with handle. It will require effort to bring the bracket over center and then to resist the chain tension as the bracket rotates downward.

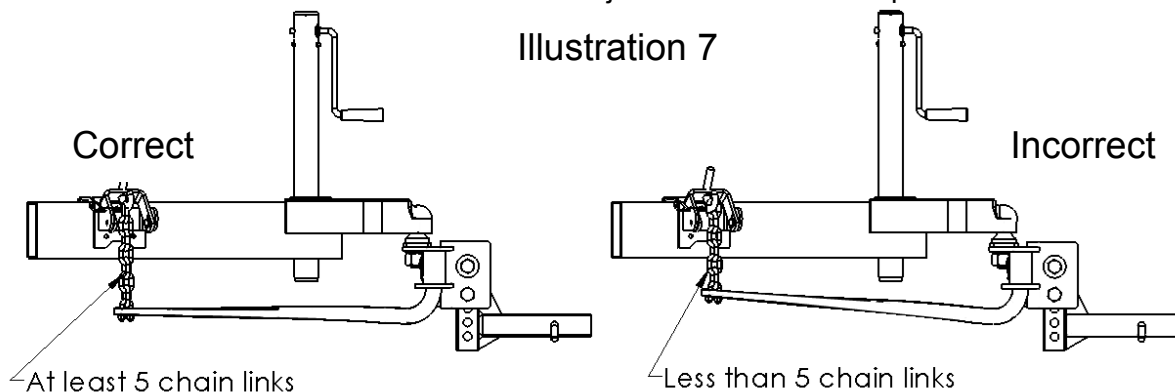
### To Raise Lift Bracket

1. Slip the marked chain link over hook on lift bracket.
2. Insert lift handle onto heavier rod above lift chain attachment.
3. Using the handle, raise the lift bracket up and over center so that it is fully seated against the mounting bracket.



### Check Vehicle Height And Adjust Spring Bars If Necessary

1. Retract the tongue jack completely so the hitch is supporting the weight of the trailer. Measure the same 3 places as done on pages 4 & 5 and compare. The tow vehicle should settle evenly, within  $\frac{1}{2}$ ". If the front of the tow vehicle has settled much more than the rear, increase the number of chain links between the lift bracket and the spring bar. The spring bars should be nearly horizontal when correct height is achieved. The frame mark should be  $\frac{1}{4}$ "-1" max higher than the original measurement.
2. When an even settling and correct spring bar position has been achieved, mark the spring bar chain at the hooked turning, there should be 5 links between the lift bracket and the spring bar. (See Illustration 7) The number of links should be the same on both bars. Adjust head tilt to accomplish correct chain height.



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## Properly Adjusted System

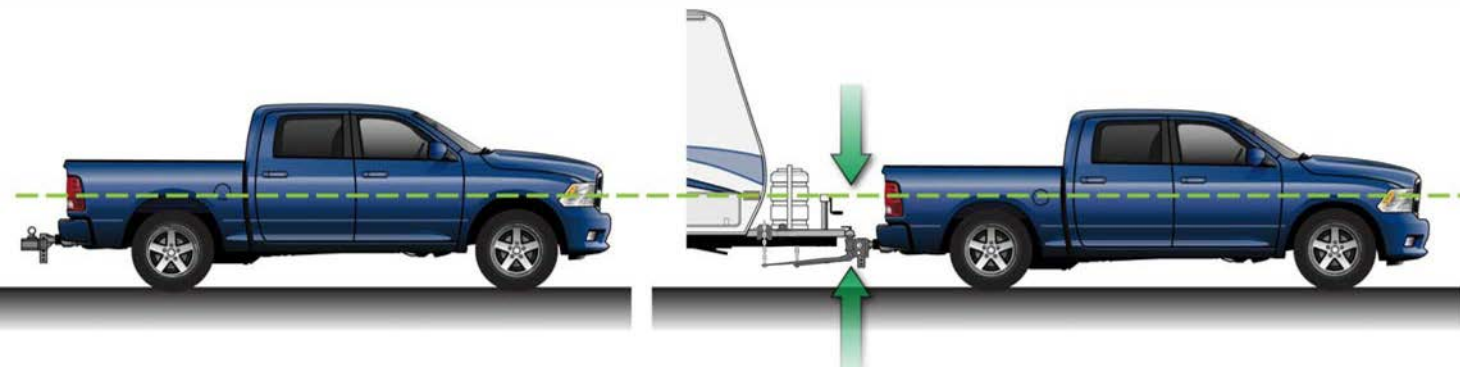


FIGURE 1

## Over Adjusted System

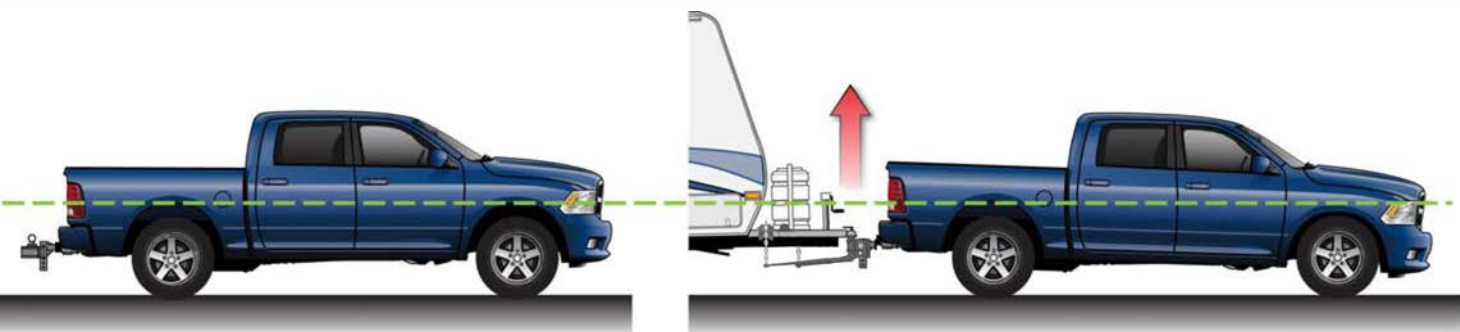


FIGURE 2

## Under Adjusted System

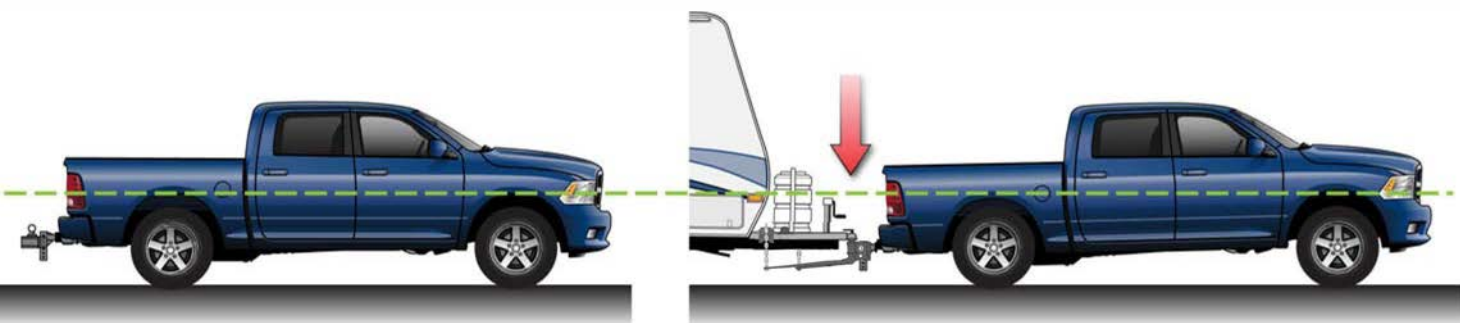
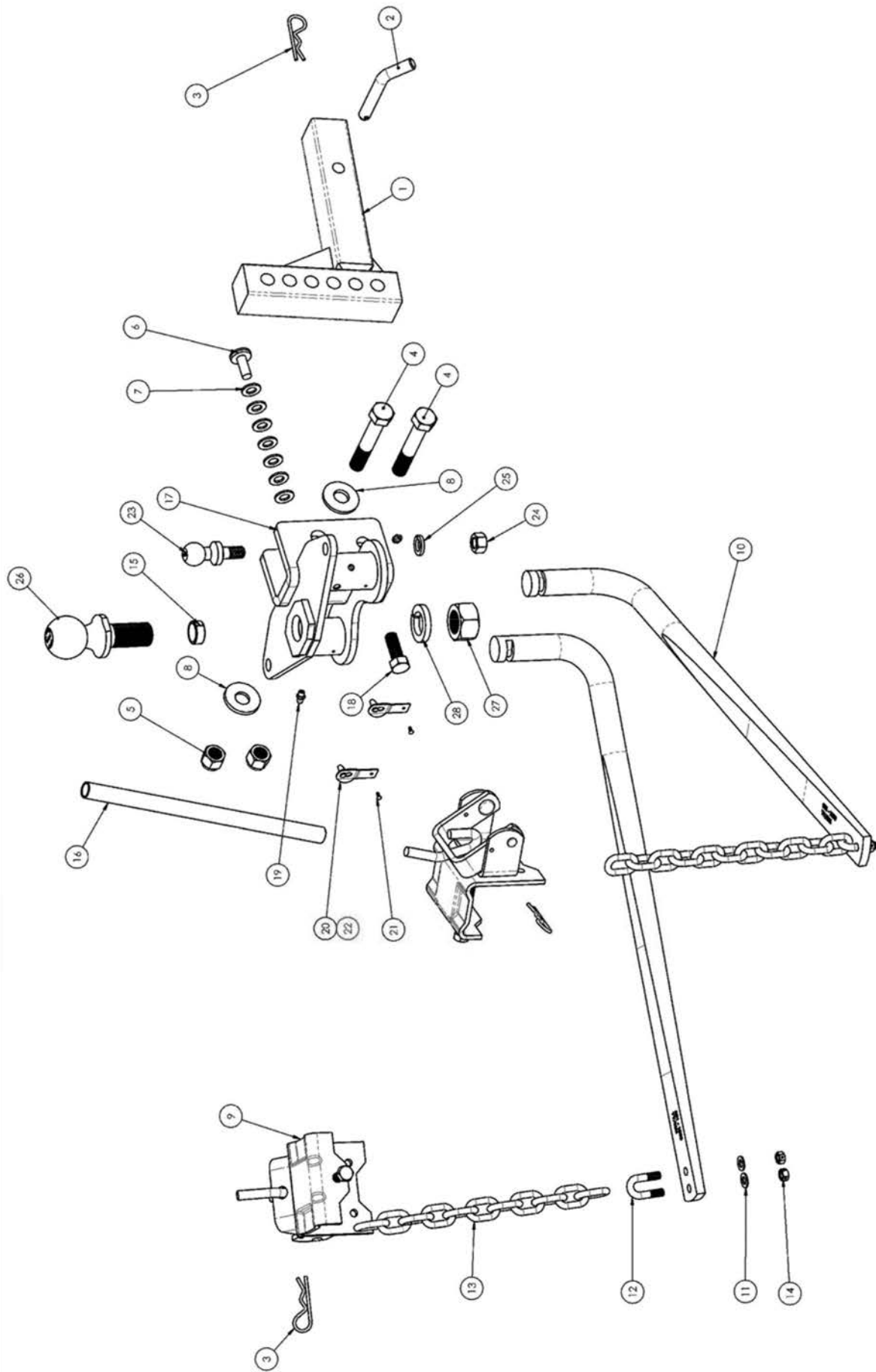


FIGURE 3

# Parts Listing



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ITEM NO.	DESCRIPTION	QTY
1	SHANK WELDMENT	1
2	HITCH PIN, 5/8"	1
3	PIN, 5/8" HAIR	1
4	BOLT, HEX, 3/4-10 X 4.5, GR5	2
5	NUT, HEX, 3/4"-10, GR5	2
6	PIN, TILT, HEAD	1
7	FLAT WASHER 1/2" X 1-1/16" OD	7
8	WASHER, CONE	2
9	LIFT UNIT ASSEMBLY	2
10	801-1200 lbs. RSB & CHAIN ASSEMBLY	2
11	FLAT WASHER, 3/8" ID X 3/4" OD	2
12	3/8" U-BOLT	2
13	11 LINK CHAIN	2
14	INDENTED LOCK HEX NUT, 3/8-16	2
15	1-1/4" TO 1" BUSHING	1
16	TUBE, LIFT	1
17	HEAD ASSEMBLY	1
18	BOLT, HEX, 5/8-11 X 1-3/4", GR5	1
19	FITTING, GREASE, STRAIGHT	2
20	PLATE, SPRING BAR RETAINING	2
21	RIVET, SPIRAL DRIVE	2
22	PIN, TAPERED RETAINING	2

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# Towing Tips

## Driving Tow Vehicle

Good habits for normal driving need extra emphasis when towing a trailer. The additional weight of the trailer affects acceleration and braking. Extra time should be allowed for passing, stopping and changing lanes. Signal well in advance of a maneuver to let other drivers know your intentions. Severe bumps and badly undulating roads can damage your towing vehicle, hitch and trailer, and should be negotiated at a slow, steady speed. If any part of your towing system “bottoms out” or if you suspect damage may have occurred in any other way, pull over and make a thorough inspection. Correct any problems before resuming travel.

Turning and backing up present new problems-plan ahead.

Towing a trailer will change your turning radius, the longer the trailer the larger radius turn.

## Driving Conditions

When driving in conditions where the pavement is wet, icy, snowy, loose gravel, grass and dirt, reduce speed and do not make any sudden maneuvers. Allow ample distance/time for stopping and changing lanes. If possible, wait for road conditions to improve before driving.

Follow all state, local and provincial driving and towing laws in the location you are driving in.

Not following your tow vehicle, trailer, and Blue Ox instructions/manuals can result in a fatal accident.

## Check Your Equipment

Please refer to the MAINTENANCE section. Periodically check the condition of all your towing equipment and keep it in top condition.

## Trailer Loading

Proper trailer loading is very important. Heavy items should be placed close to the floor near the trailer axle centerline. The load should be balanced side to side and firmly secured in the trailer to prevent shifting. Tongue weight should be 10-15% of the gross trailer weight for most trailers. Too low a tongue weight often produces tendency to sway.

## Tire Inflation

Unless specified otherwise by the towing vehicle or trailer manufacturer, tires should be inflated to their manufacturer's towing recommendations.

## Towing Vehicle And Trailer Manufacturers Recommendations

Review the owner's manual for your towing vehicle and trailer for specific recommendations, capacities and requirements.

## Passengers In Trailers

Trailers should not be occupied while being towed. Most states enforce this regulation.

## Trailer Lights, Turn Signals, Electric Brakes

Always hook up all of the trailer lights, electric brakes and break-away switch connection whenever trailer is being towed. Also periodically check functionality of all lights before towing and repair any problems as needed.

## Remove Hitch When Not Towing

Remove hitch from receiver on towing vehicle when not towing a trailer to prevent contamination of spring bar sockets, reduce chances of striking hitch on driveway or other objects, and reduce the chance of parts being stolen.

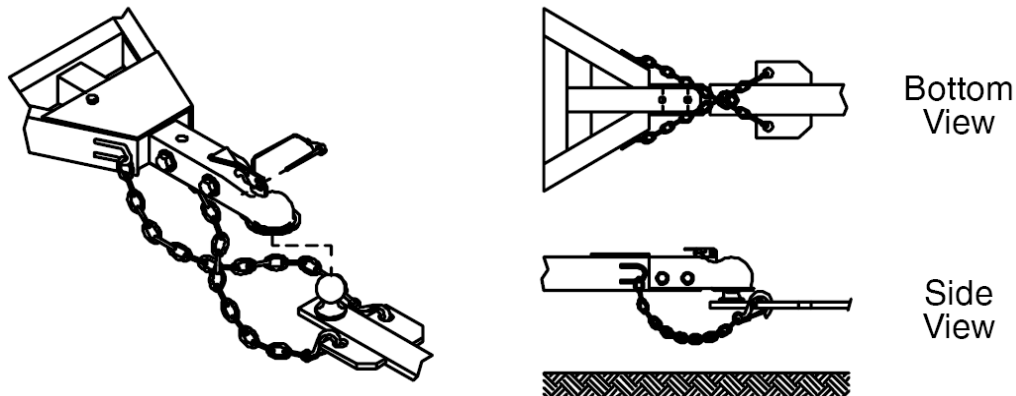
## Modifications

Do not adapt or modify the Bolt Together Weight Distribution System in any way.

## Safety Chains

Can Prevent Runaway Trailer in case hitch/coupler fails.

1. Always use safety chains when towing.
2. Cross safety chains under coupling to prevent tongue from dropping to ground.
3. Allow only enough slack for tight turns.
4. Do not let safety chains drag on ground.
5. Twist safety chains equally from hook ends to take up slack.
6. Use safety chains rated equal to or greater than twice the maximum gross trailer weight rating.



## Uncontrolled tilting of trailer can result in personal injury or equipment damage.

1. Distribute weight so that trailer tongue weight is approximately 10-15% of the gross trailer weight.

## Incorrect tongue weight can cause fishtailing and loss of control of towing vehicle resulting in serious injury and equipment damage.

2. Tongue weight is the amount of trailer weight that rests on the towing vehicle hitch – that is, the downward pressure on the coupler.
3. Remove or adjust trailer load to get correct tongue weight.
4. Do not let tongue weight exceed coupler and hitch rating.
5. Use slower speeds when towing a trailer.

## Maintenance

Keep the round ends of the spring bars and the sockets in the head assembly free from dirt and well lubricated. Excessive wear in this area may indicate an overload or inadequate lubrication.

Keep the head assembly exterior clean, especially in the area of the spring bar retainer. Do not allow dirt or stones to lodge in this area.

Keep hitch parts painted to prevent rust and maintain good appearance. Do not paint over labels.

Keep lift brackets clean and lubricated to ensure ease of operation.

### At The Beginning Of Every Towing Day:

Coat the round ends of the spring bars with a marine grade wheel bearing grease.

Clean ball and coupler socket and coat ball lightly with a marine grade wheel bearing grease.

Check spring bar chains and U-bolts for wear and security. Replace before they become worn.

Check to see that all hitch bolts are properly tightened and that the locking pins in the lift brackets are properly and securely in place.

Check that the hitch pin is in place and secure.

Check to see that all electrical hook-ups are in working order and that the safety chains are securely connected.

### Check All Trailer To Towing Vehicle Connections For Security And Operation

NOTE: Surge brakes usually require a small amount of fore and aft movement for their actuating mechanism to function. Tighten the two  $\frac{3}{4}$ " bolts to 260 ft. lbs. torque once the head angle is set. Those surge brake actuators not designed for use with a weight distributing hitch may bind and not operate freely. Check your surge brake operating instructions for any specific requirements regarding their use with weight distributing hitches.

### Warnings

Loaded ball height should never be greater than what these instructions allow! Front wheel overload and loss of rear wheel traction can result and can lead to unstable handling. It can reduce braking ability and create a tendency to "jackknife" when turning and braking at the same time.

Loss of steering may result in a "high nose" trailer setup. If this occurs refer to page 10 "CHECK VEHICLE HEIGHT AND ADJUST SPRING BARS IF NECESSARY" and make the necessary equipment adjustment or tow vehicle and/or trailer load adjustments.

Short wheel base vehicles may induce sway when towing a trailer. **USE EXTREME CAUTION.**

**Caution:** If the lift chain is angled fore or aft at the top within the lift bracket, it may catch on the bracket when turning. This could damage the lift bracket or pry it open.

### FRONT WHEEL DRIVE VEHICLES:

Do not attempt to hook-up or tow with the rear tires of the towing vehicle removed. Severe structural damage to the towing vehicle, hitch and trailer may result. A towing vehicle/trailer combination cannot be controlled adequately unless the towing vehicle's rear wheels are carrying their share of the load.

### CAUTION!

Using the Bolt Together Weight Distribution System without the spring bars removes all weight distribution functionality of the product.

# BLUE OX ORIGINAL PURCHASERS LIMITED LIFETIME WARRANTY

Automatic Equipment Manufacturing Company (“Automatic”) warrants to the original (first) retail purchaser that this product, manufactured by Automatic, shall be free from defect in material and workmanship under normal use and service for as long as the original retail purchaser owns the product.

During said period, Automatic will repair or replace any parts that have been returned by the original purchaser, to the factory, transportation prepaid, and in Automatic’s sole and absolute opinion found to be defective.

Limitations on Warranty Coverage:

Coverage under this warranty will be valid only if the customer warranty card is returned by the original purchaser within 30 days of purchase.

Coverage under this warranty will be effective only when a copy of the original invoice, showing date and place of purchase, accompanies any claim for warranty. This warranty is NON TRANSFERABLE.

This limited warranty will not cover, in any way or form, any alleged damages caused by incorrect or improper installation, improper use, modification or neglect of product, failure to properly service and maintain, misuse, act of God, accident or failure of the user to follow guidelines contained in the instructional material provided by Automatic.

This warranty does not cover normal wear and tear, paint or rust.

Warrantor assumes no responsibility to the owner for loss of use of product, loss of time, inconvenience or any other damage consequential or otherwise. Including, but not limited to mileage, expense of transporting of product, return shipping expense, mechanics travel time, telephone, road service, towing, and rental during repairs, travel, lodging, loss or damage to personal property or loss of earnings.

**REPAIR OR REPLACEMENT AS SET FORTH IN THIS LIMITED WARRANTY IS THE SOLE EXCLUSIVE REMEDY OF THE PURCHASER. AUTOMATIC SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED IN LENGTH TO THE DURATION OF THIS WARRANTY.**

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