

# Weight Distribution Kit RTE042 User Manual



## USER MANUAL

**DEALERS:** Give these instructions to your customers.

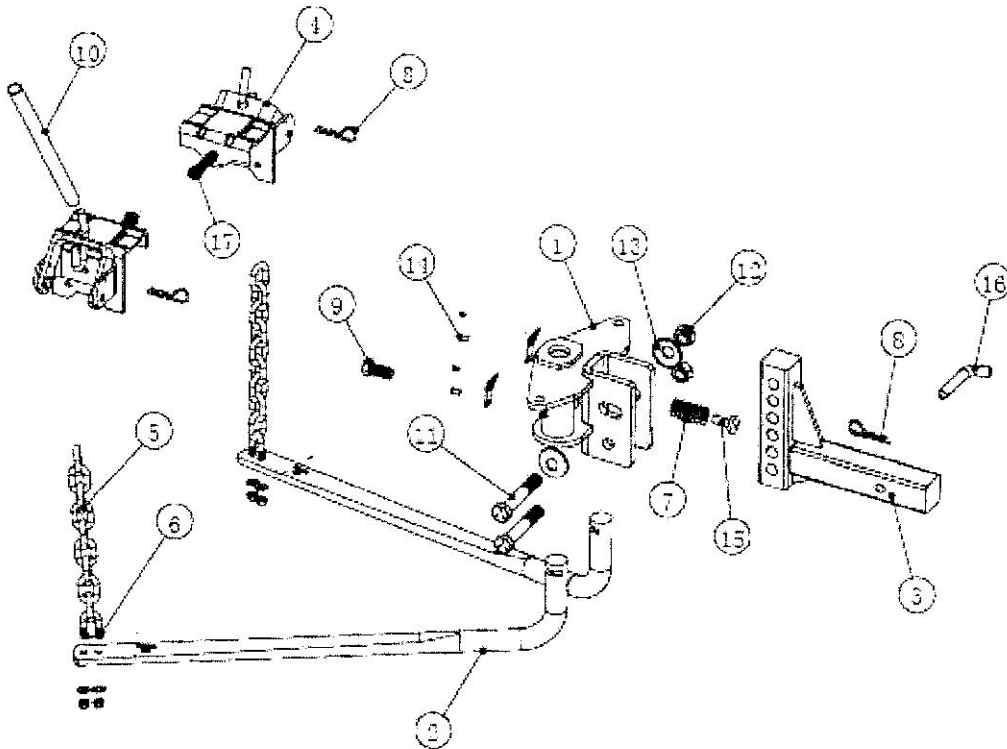
## EQUIPMENT REQUIRED

Wrenches: 9/16", 3/4", 1-1/8"

Drill Bits: 11/32"

Torque Wrench capable of reading 260 ft-lbs

## PARTS



- |                               |                               |
|-------------------------------|-------------------------------|
| 1. Ball Mount                 | 10. Lifter Handle             |
| 2. Spring Bar                 | 11. 3/4"-10 x 4 1/2" Bolts    |
| 3. Hitch Bar                  | 12. 3/4" - 10 Nut             |
| 4. Snap Up Bracket            | 13. 3/4" Conical Washer       |
| 5. Safety Chain               | 14. Spring Bar Lock Assembly  |
| 6. 3/8" U-Bolt, Nut, & Washer | 15. Rivet                     |
| 7. Spacer Washer              | 16. Pull Pin                  |
| 8. Spring Clip                | 17. Snap Up Bracket Set Screw |
| 9. Set Screw                  |                               |



## WARNING

### FAILURE TO FOLLOW ALL OF THESE INSTRUCTIONS MAY RESULT IN DEATH OR SERIOUS INJURY!

Do not exceed lower of towing vehicle manufacturer's rating or:

	Max Gross Trailer WT (LB)	Max Torque WT (LB)
Weight Distributing	10,000	550
Weight Carrying Ball Mount	5,000	500

## SIZING WD AND TRAILER HITCH SYSTEMS

1. Refer to provided Consumer Information to weigh loaded trailer tongue to determine proper system size.
2. Choose a system with tongue rating at or above the actual loaded trailer tongue weight.
3. Tongue weight rating of trailer hitch must meet or exceed measured tongue weight or loaded trailer. OEM hitches may not be rigid enough for tongue weight and may need to be replaced (too much flex and won't carry load).
4. Total trailer gross weight rating must never exceed tow vehicle rated gross tow rating.

## INITIAL SET-UP

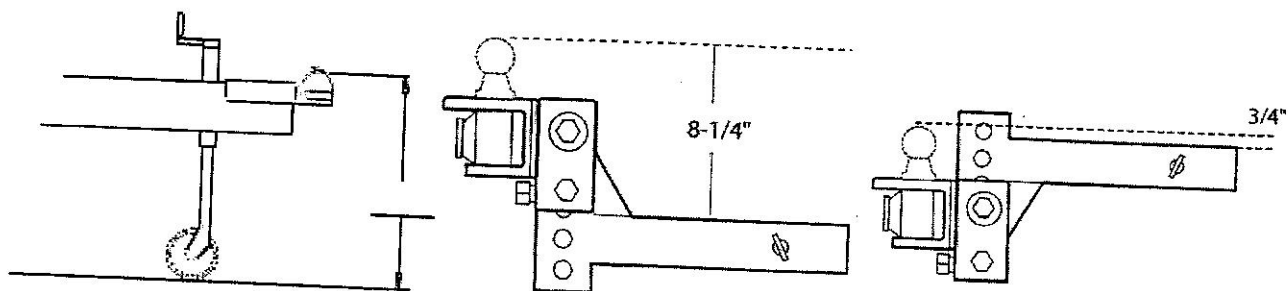
1. Line up tow vehicle and trailer on level pavement, in straight-ahead position, uncoupled.
2. Level the trailer and measure, and record the distance from the ground to the top of the coupler.
3. Some installations may require a longer hitch bar. Extended bumper guards, pickup truck 'caps', or rear mounted spare tyres can limit turn angles unless a longer bar is used. Individual hitch bars are available in various sizes.
4. Insert the hitch bar into the hitch box and install a pull pin and spring clip. Hitch bar may be used in either the up or down position.

**NOTE:** The ball height should be greater than the coupler height by approximately 3/4 to 1" (measured in Step 2) to compensate for vehicle squat. For vehicles with air springs, air shocks or an automatic levelling system, check vehicle owners manual. Unless otherwise specified, level the trailer with the vehicle loaded as it will be when towing before setting ball height and attaching trailer.

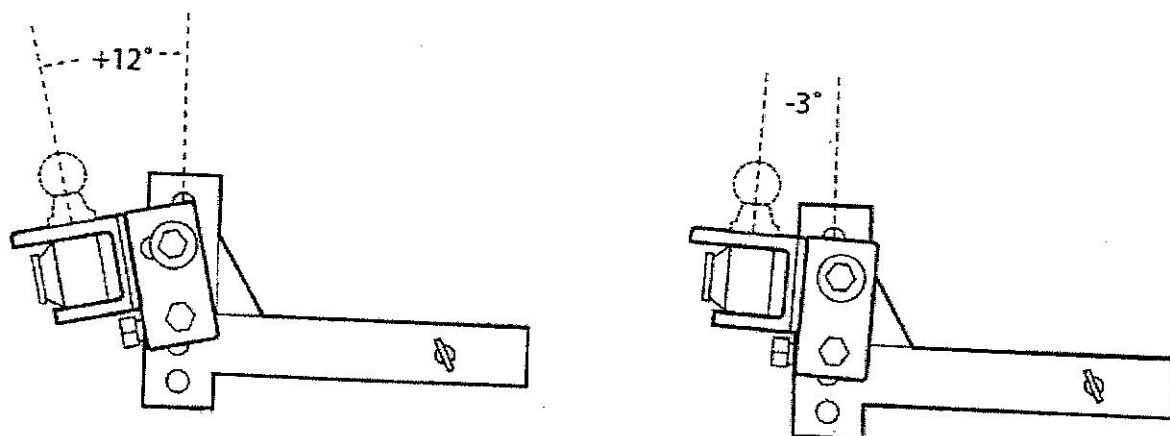
5. Slide hitch bar into sleeve receiver; insert pull pin and spring clip. With ball, purchased separately, attached to ball mount, slide ball mount up or down hitch bar (hitch bar may be used in the up or down position) until desired ball height is obtained and holes line up with hitch bar. Insert bolt in bottom hole first of the hitch head.



6. Rivet and 7 spacer washers are supplied in order to gain correct downward angle of spring bars. Insert rivet, and depending on angle or slope of bars that must be gained, use either 7 or the least amount of washers necessary in order to establish correct angle.



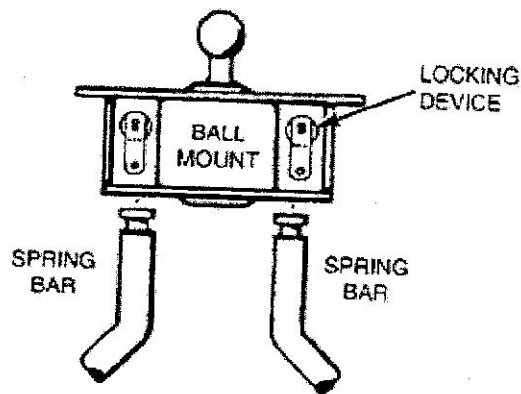
7. The rivet and its accompanying washers are placed in the 1/2" hole between the "U" on ball mount to acquire desired angle of spring bar. One spring bar angle has been determined, insert top bolt with conical washer. Install second conical washer and nut to secure unit in correct position. Before tightening bolts, lock set screw. Tighten the 3/4" top bolt to 260ft. lbs. torque once head angle is set. Secure lower bolt to 260ft. lbs. torque. After first day of towing, check set screw for tightness.



## INITIAL HOOK-UP

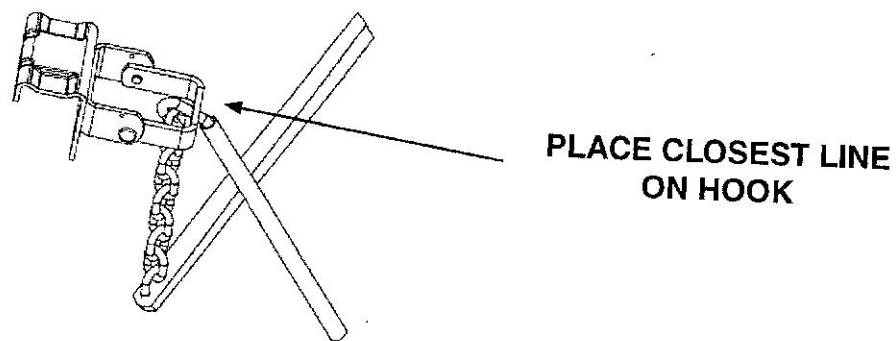
**NOTE:** Tow Vehicle and trailer should be loaded and ready for travel before final levelling.

1. Pick a reference point on the front wheel well. Measure and record distance to pavement.
2. Using tongue jack, lower coupler onto ball and close coupler latch.
3. The Spring Bars can be inserted into either side of Ball Mount (there is no right or left bar). To lock, insert and lock Spring Bar in socket, hold bar under socket and push up. The Spring Bar will automatically be locked into position by the Spring Bar Locking Device. (Check to make sure bar is locked in by moving it up and down at the chain end).
4. To remove Spring Bars, just pull out on the locking device or swing bar around under the bumper and it will drop free.



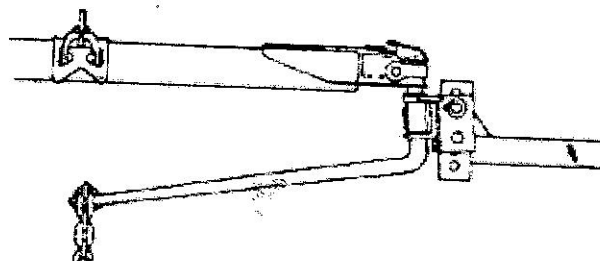
5. Position the snap up brackets on trailer "A" frame so that the chain on the end of the spring bar is approximately vertical. Turn set-screw until it contacts frame. Then tighten 1/4 turn with wrench. **DO NOT OVERTIGHTEN.**

6. Raise trailer tongue and rear of vehicle with the tongue jack, Approximately 8-12 inches. Lower yoke of snap up bracket until it is parallel with the ground, and slip the closest link over the hook (If there are less than 5 links between hook and u-bolt adjust ball mount angle rearward, and repeat procedure). With the snap up bracket handle over the yoke, raise until yoke has passed 'over-center'. Slide the spring clip through the small hole to lock the yoke in place. Repeat for other side.



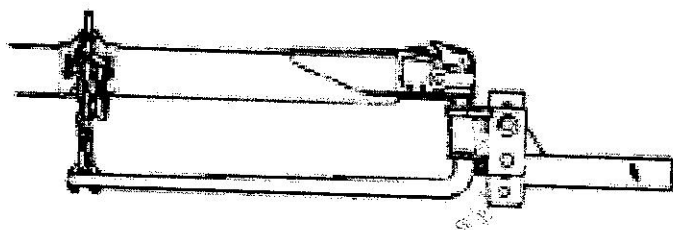
### BEFORE HOOKING UP

Spring bars should hang down on a 10° - 13° angle when ball mount has been tilted back at 6° - 8° angle.



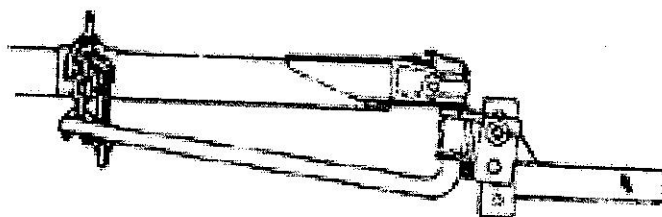
## AFTER HOOKING UP

Spring bar should be parallel with trailer frame, or a slight angle up or down.



## WRONG

Readjust degree of tilt on ball mount, if you have more than 5 links of chain hanging free. The number of links should be the same on both bars.



7. Lower jack. Re-measure front wheel well reference point. The front wheel well height should be equal to or lower than the original measurement. If the front wheel well height is higher than originally measured, reduce the number of links between the yoke hook and spring bar (5 links minimum) and recheck the wheel well measurement. If the front wheel well is lower than originally measured, increase the number of chain links between the yoke hook and spring bar and recheck the wheel well measurement. If the original wheel well height is not achievable, it is preferred that the wheel well height is lower after the spring bars are loaded. If there are no more chain links for adjustment, the head assembly must be tilted forward. The trailer must be uncoupled and the upper bolt removed from the head assembly. The head is then pivoted up as appropriate. The number of washers will need to be adjusted as shown in Step 6. Reassemble and recheck the wheel well height.

## LUBRICATION

**Maintenance:** Use heavy lubrication such as fiber type wheel bearing grease on hitch ball and on spring bars. Recommended every day. Keep hitch painted to prevent rust and check tightness of bolts regularly. Clean out old grease, do not let it harden inside of the Ball Mount.

## SURGE BRAKES

Some surge brakes will not work with weight distributing hitches.

**CHECK TRAILER AND/OR SURGE BRAKE OPERATING INSTRUCTIONS FOR ANY SPECIAL REQUIREMENTS REGARDING WEIGHT DISTRIBUTING HITCHES. DO NOT USE SWAY CONTROL WITH SURGE BRAKES.**

## TOWING TIPS

**DRIVING:** Good habits for normal driving need extra emphasis when towing. The additional weight affects acceleration and braking, and 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 OCCURED IN ANY OTHER WAY, PULL OVER AND MAKE A THOROUGH INSPECTION. CORRECT ANY PROBLEMS BEFORE RESUMING TRAVEL.**

**CHECK YOUR EQUIPMENT:** Periodically check the condition of all your towing equipment and keep it in top condition.

**TRAILER LOADING:** Proper trailer loading is important. Heavy items should be placed close to the floor near the trailer axle. The load should be balanced side-to-side and firmly secured to prevent shifting. Tongue weight should be about 10-15 percent of the gross trailer weight for most trailers. Too low a percentage of tongue weight will often produce a tendency to sway. Excess weight on the tongue can also lead to sway and damage hitch and/or tow vehicle.

**SWAY CONTROLS:** A sway control can help minimise the affects of sudden maneuvers, wind gusts, and buffeting cause by other vehicles, Use of sway control is recommended for trailers with large surface areas, such as travel trailers.

**TYRE INFLATION:** Unless specified otherwise by the towing vehicle or trailer manufacturr, tyres should be inflated to their maximum recommended pressure.

**TOWING VEHICLE AND TRAILER MANUFACTURER'S RECOMMENDATIONS:** Review the owner's manual for your towing vehicle and trailer for specific recommendations, capacities, and requirements.

**POLE TONGUE TRAILERS:** If your trailer has a straight tongue (Instead of an A-Frame tongue), it will be necessary to use a pole tongue adapter. This adapter attaches to the trailer tongue, providing a place to attach the snap up brackets.

**PASSENGERS IN TRAILERS:** Trailers should not be occupied while being towed, under any circumstances.

**TRAILER LIGHTS, TURN SIGNALS, AND ELECTRIC BRAKES:** Always hook up trailer lights, turn signals, electric brakes and break-away switch connection (if so equipped) even for short trips.

**REMOVE HITCH WHEN NOT TOWING:** Remove hitch from towing vehicle receiver when not towing, to prevent contamination of head sockets, reduce chance of striking hitch on driveway ramps or other objects, and minimise damage in the event of a rear-end collision.

## WARNING

**LOADED BALL HEIGHT SHOULD NOT BE GREATER THAN UNCOUPLED BALL HEIGHT.** Front wheel overload and loss of rear wheel traction can result, and can lead to unstable handling, reduced braking ability, and a tendency to 'jackknife' when turning and braking at the same time. **IF LOADED BALL HEIGHT IS GREATER THAN UNCOUPLED HEIGHT,** reduce take-up on spring bar chains and re-measure until proper height is obtained.

**DO NOT TOW MULTIPLE TRAILERS:** Do not attempt to tow any type of trailer behind another trailer. Towing multiple trailers may cause severe instability, loss of control and/or structural failure, and may result in vehicle accident, property damage and personal injury. Towing multiple trailers is illegal in many jurisdictions.

**FRONT-WHEEL-DRIVE VEHICLES: DO NOT ATTEMPT TO HOOK UP OR TOW WITH REAR WHEELS OF TOWING VEHICLE REMOVED.** Severe structural damage to 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.

## MAINTENANCE

- Keep sockets in head assembly free of dirt and well lubricated. Excessive wear in this area may indicate overload or inadequate lubrication.
- Keep head assembly exterior clean, especially the spring bar sockets. Do not allow dirt or stones to lodge between spring bar and head.
- Keep hitch painted to prevent rust and maintain a good appearance. (Do not paint over labels).

### AT THE BEGINNING OF EVERY TOWING DAY:

- Clean ball and coupler socket and coat ball lightly with grease.
- Check spring bar chains and u-bolts for wear. Replace before they become worn halfway through.
- Check to see that all bolts are properly tightened and hitch pin and clip are securely in place.
- Check to see that electrical hookups are in working order, and that safety chains are connected.

Distributed by:  
TechBrands by Electus Distribution Pty. Ltd.  
320 Victoria Rd, Rydalmere  
NSW 2116 Australia

Ph: 1300 738 555  
Int'l: +61 2 8832 3200  
Fax: 1300 738 500

[www.techbrands.com](http://www.techbrands.com)

Made in China