

### MASTER ROUND BAR WEIGHT DISTRIBUTION HITCH

### **INSTALLATION FOR HOOK-UP**

Put ball mount into sleeve and insert 5/8" hitch pin, using spring clip to lock pin in place. Hitch balls are not furnished with the hitch as there are several sizes. Normally they are supplied or may be purchased from the dealer to match the coupler of the trailer.

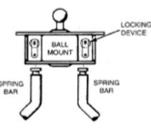
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Measure towing vehicle before adding load to towing vehicle. Measure distance between top of rear wheel arch, write it down. Measure distance between top of front wheel arch and ground, write it down. Hook trailer to tow vehicle. Lock on ball. To make hooking up easier

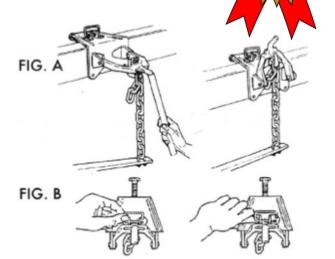
and safer-raise front of trailer and back of towing vehicle above level with jockey wheel. This removes some of the tension by reducing the distance between spring bar and hook-up arm.



- 3) The spring bars can be inserted into either side of the 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 (checking to make sure bar is locked in by moving it up and down the chain end.) To remove spring bars, just swing bar around under the bumper and it will drop free.
- 4) To find correct location on trailer frame for quick hook-up bracket, hold chain straight up and free of twist. Center hook-up bracket on frame and tighten set screw ¼ TURN PAST SNUG ONLY. DO NOT OVER TIGHTEN.
- 5) You are now ready to put tension on spring bars. For safety make sure step 2 is completed. When using the quick hook-up, lower the arm and slip link of chain over hook. Insert lever bar over end of quick hook-up arm. Lift and flip over centre. (See figure A.)

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.

WARNING: By towing a trailer you change the handling characteristics of the tow vehicle. Conditions you may encounter can cause sudden trailer sway. When used properly, the Keme Weight Distribution Hitch and Sway control dampen and reduce trailer sway and distributing trailer tongue weight reduce unsafe towing vehicle handling. IMPORTANT: Short wheel base vehicles may induce sway when towing a trailer. USE EXTREME CAUTION.



CAUTION: MAKE SURE THAT HOOK-UP ARM IS COMPLETELY SEATED AND SPRING BAR IS PUSHED DIRECTLY UNDER HOOK-UP CHAIN HOOK. Now install Hook-Up locking clip through locking ears and over hook on Hook-Up arm. (See figure B.)

- 6) Release trailer jockey wheel, by adjusting the chain links up or down, the desired levelness of the car and trailer will be gained. Remeasure front and back of towing vehicle and have both settle the same amount or up to an inch lower in back by adjusting chain on spring bars. You have now distributed the trailer tongue weight on both axles of the towing vehicle.
- 7) To release tension on spring bars, raise front of trailer and back of towing vehicle above level (approx. 3") with trailer jockey wheel. Remove locking clip from quick hook-up bracket. Insert lever bar over arm. Carefully lower arm with lever bar. It will require effort to bring arm over centre and then to resist the chain tension as the arm rotates downward.

To determine whether or not a particular tow vehicle and trailer combination is suitable, you should always refer to the driver's manual provided by the vehicle and trailer manufacturers and seek the recommendations and advice of the trailer dealer.

# WEIGHT DISTRIBUTION HITCH

**MASTER ROUND BAR** 

### WARNINGS & TIPS

NOTE: SURGE BRAKES usually require a small amount of fore-aft movement for their actuating mechanisms to function. To avoid restricting movement, it may be necessary to increase the number of chain links between the Quick Hook-Ups and the Spring Bars.

TIGHTEN BALL MOUNT BOLTS AND NUTS

Tighten Bolts (Part 16) and Nuts (Part 12) to 260 lb \* ft.

Tighten Angle Set Bolt (Part 2c) to 50 lb ft.

CHECK ALL CONNECTIONS BEFORE TOWING

•Check the following: Hitch Pin (Part17) and Spring Clip (Part 18) securing Shank (Part 1) to receiver, Ball Mount (Part 2) to shank fastener Bolts (Part 16) and Nuts (Part 12), ball nut, coupler latch, Quick Hook-Up Set Screws (Part 6), safety chains, lights and turn signals, and braking system, including breakaway switch.

#### LUBRICATION

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1.Hitch Ball and SPRING BARS SHOULD BE LUBRICATED EACH TOWING DAY. FAILURE TO DO SO WILL RESULT IN EXCESSIVE POCKET AND SPRING BAR WEAR. Use a heavy oil or grease.

2. Excessive oil, dirt, and grit should be wiped out of pockets whenever trailer is uncoupled.

3.Clean hitch ball and coupler socket. Coat ball lightly with grease.

WARNINGS

FAILURE TO HEED MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH, VEHICLE CRASH, AND / OR PROPERTY DAMAGE

COUPLED BALL HEIGHT SHOULD NEVER BE GREATER THAN UNCOUPLED BALL HEIGHT. Front wheel overload and loss of rear wheel traction can result. This can lead to unstable handling, reduced braking ability, and a tendency to "jackknife" when turning.

USE EXTREME CAUTION WHEN BACKING UP AND TURNING. DO NOT ALLOW TOW VEHICLE AND TRAILER TO MANEUVER INTO A "JACKKNIFE" POSITION.

Components of the hitch and sway control, if applicable, may be forced into damaging contact. If a "jackknife" maneuver has occurred, examine all towing system components for damage or loosening immediately. Repair or replace any damaged components before resuming towing.

DO NOT TOW MULTIPLE TRAILERS.

Towing multiple trailers may cause severe instability, loss of control and structural failure.

DO NOT ATTEMPT TO HOOK-UP OR TOW WITH A FRONT WHEEL DRIVE VEHICLE WITH THE REAR WHEELS REMOVED.

### 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 before a maneuver to let other drivers know your intentions. Severe bumps and badly undulating road 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.

#### 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 often produces a tendency to sway.

#### SWAY CONTROLS

A sway control can help minimize the effects of sudden maneuvers, wind gusts and buffeting caused by other vehicles. Use of a sway control is recommended for trailers with large surface areas, such as travel trailers, and for trailers with low tongue weight percentage.

TIRE INFLATION

Unless specified otherwise by the towing vehicle or trailer manufacturer, tires should be inflated to their maximum recommended pressure.

#### 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, under any circumstances.

TRAILER LIGHT, TURN SIGNALS AND ELECTRIC BRAKES

Always hook up trailer lights, turn signals, electric brakes and break-away switch connection (if equipped). Even for short trips.

REMOVE BALL MOUNT AND SHANK WHEN NOT TOWING -

Remove Ball Mount and Shank from towing vehicle receiver when not towing. This will prevent contamination of Ball Mount Spring Bar pockets, reduce chance of striking Ball Mount on driveway ramps or other objects, and minimize damage in event of a rear-end collision.



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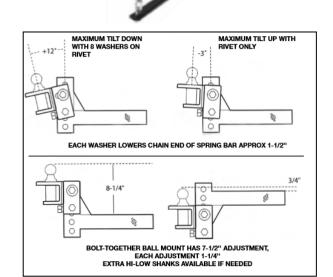
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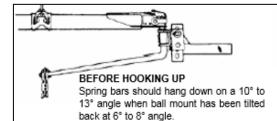
## **INSTALLATION FOR BALL MOUNT**

1) The height of the ball must be determined before any assembly work can be started. To get ball height, measure trailer from ground level to top of ball coupler. Be sure trailer is parallel to ground.

- 2) Slide shank into sleeve receiver, insert hitch pin and spring clip with ball attached to ball mount, slide ball mount up or down shank (shank may be used in the up or down position) until nearest dimension is obtained and holes line up with shank. Insert bolt in bottom hole first (rest hitch head.)
- 3) Rivet and 8 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 8 or the least amount of washers necessary in order to establish correct angle.

The rivet and its accompanying washers are placed in the  $\frac{1}{2}$ "hole between the "Ü" on the ball mount to acquire desired angle of spring bar. Once spring bar angle has been determined, insert top bolt with serrated washer. Install second serrated washer and nut to secure unit in correct position, now insert bottom bolt and nut before tightening bolts, lock set screw tighten the  $\frac{3}{4}$ " top bolt to 260 ft. Ibs. torque. After first day of towing, check set screw for tightness.





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



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

