

WARRANTY INFORMATION

TERMS OF THE WARRANTY:

All products manufactured by Happijac Co. are warranted to the retail customer for one year from date of purchase against defects in material or workmanship. Any defective part(s) will be repaired or replaced (at Happijac's option) without charge, when returned transportation prepaid.

There are no other expressed warranties except as set forth above and any implied warranties are limited in duration to that of the expressed warranty. This warranty does not cover any damage due to misuse, negligence, or accidents. There is no warranty covering consequential damages, incidental damages, or incidental expenses including damage to property.

This warranty gives you specific legal rights. You may have other rights which may vary from state to state.

WARRANTY CLAIMS:

All defective material must be returned to the factory via prepaid shipment. Upon inspection and determination of claims warranted, the factory will repair/replace the material at no charge and return the repaired/replaced material to the customer with delivery charges prepaid by Happijac via common carrier of Happijac's choosing. Upgrades and changes to shipping mode resulting in additional shipping costs shall be at customers expense.



HAPPIJAC company

505 N. Kays Drive, Kaysville UT 84037
Phone: (801) 544-2585
Fax: (801) 546-5241
Email: happijac@happijac.com
Web Address: www.happijac.com



HAPPIJAC
COMPANY

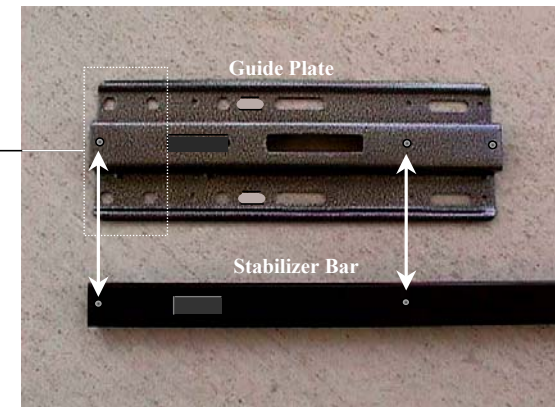
Frame Mount
Camper Tiedown System

Models: FM-DR2

FRONT ANCHOR INSTALLATION

STEP 1 – Place the guide plates over the stabilizer bar and attach both using #10 x 3/4" sheet metal screws provided in Kit A. The arrows show the location of these sheet metal screws.

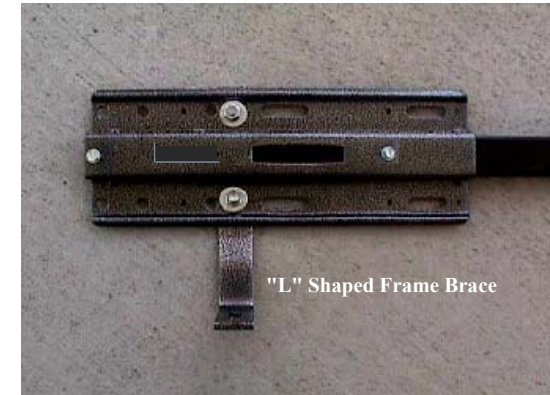
Note: The 4 large **round** holes in guide plate must be to the outer ends of the assembly at both ends.



STEP 2 – Attach frame braces to guide plates. Insert the flat head, square shouldered plow bolts through the countersunk hole in frame brace from the back side, then through the shorter slotted hole in the guide plate. Secure with flat washer, split lock washer and nut.

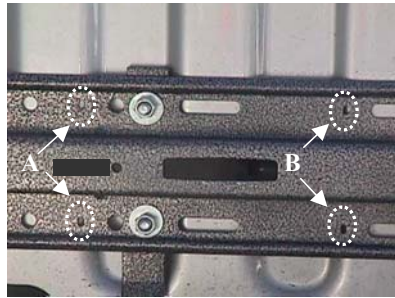
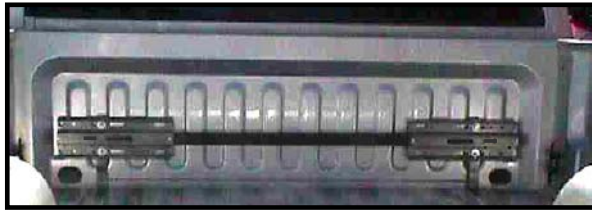
See diagram for specific locations.

Note: Do not tighten the nuts at this time. They will be tightened at a later step.



STEP 3 – [Hardware Kit B]

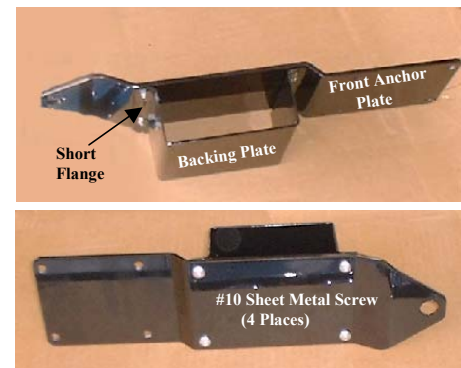
Center the assembly against front wall of truck bed. Select the screw location (A or B) where the silver/gray guide plate fits tightest against the front wall. Drill a 3/32" pilot hole for the sheet metal screw at best locations. Note: These screws are used to hold the assembly in place while drilling the mounting holes for the anchor plates. Generally only one screw per side is needed.



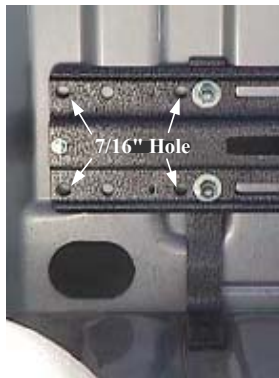
It is a good idea to put a piece of wood between the bed and cab to prevent drill bit from striking the cab.

STEP 4 – Front Anchor Assembly

Attach backing bracket to front anchor plate using the 1/4" sheet metal screws provided in hardware Kit J. (Short flange toward tip)



STEP 5 – Drill four 7/16" holes through guide plate and bed front wall using the four large round holes as a drill guide. These holes align with the threaded holes in the black anchor plate.



It is a good idea to put a piece of wood between the bed and cab to prevent drill bit from striking the cab.

LOADING, UNLOADING & LEVELING THE CAMPER

When loading and unloading, the height at which the camper is set above the bed is critical to the proper operation of the rear centering guide locks.

ALWAYS: Keep the camper bottom within 2" of the truck bed. While it is important to keep the camper close to the truck, serious damage and injury can result if the truck "hooks" the camper as you pull from beneath it. **MOVE SLOWLY!!!** Be Careful.

NEVER: Allow the camper to come above the rear centering guide locks! If the camper were lowered onto the top of the centering guide lock, severe damage could occur to truck, camper, or both!

NEVER: Rely on the centering guide locks to align the camper as you load. While they will move the camper SLIGHTLY side to side, their purpose is to lock the camper in place, on center in the truck once loaded. Attempting to load when truck to camper alignment is poor can also cause serious damage to truck bed, wheel wells, tail lights, etc.

ALWAYS: Remember to remove the turnbuckles prior to raising camper to unload.

NEVER: Attempt to level the camper on the truck with the turnbuckles installed!

ALWAYS: Remove the turnbuckles before leveling the camper. Your jacks were not designed to lift both the truck and camper. Damage to the truck, tiedowns or camper is also likely to occur if the turnbuckles are not removed when leveling.

NEVER: Lift the camper completely off the truck to level unless the truck is being moved from beneath the camper and the camper is being lowered close to the ground. The camper is not stable at that height and unsafe for occupancy unless resting on the truck.

ALWAYS: Lower the camper as close to the ground as possible when not on the truck. The closer to the ground, the more stable the camper becomes.

NEVER: Allow the front of the camper to become lower than the back when loading or unloading. Doing so shifts a tremendous amount of weight over the front jacks which could cause a dangerously overloaded situation. Whenever the camper is not on the truck, it is a good idea to keep the front 4" higher than the back. Except when the camper is lowered close to the ground and leveled for occupancy.

NEVER: Leave the camper up in the air on extended jacks. Lower the camper as low as possible when not on the truck.

FRONT TURNBUCKLE INSTALLATION

6

The Spring Loaded turnbuckles, those with the longer barrel, MUST go at the front to ensure proper system performance. **DO NOT SWITCH FRONT & REAR TURNBUCKLES!**

STEP 1 – [Hardware Kit G]
Assemble the turnbuckle by first screwing a nut onto the 9" threaded hook, then screwing the threaded hook into the barrel of the turnbuckle. **NOTE: The front turnbuckles are the pair with the longer (10") barrels.**

STEP 2 – While holding the turnbuckle up by the captive (non-threaded) hook, mark the hook at the point where it enters the barrel.



HINT: This mark will be needed each time the turnbuckles are installed. A painted, taped, or scribed line can eliminate the need to mark each time.

STEP 3 – Install the turnbuckles on the truck and camper with the threaded hook up. This will keep moisture from entering and pooling inside the turnbuckle. Tighten the turnbuckle until the mark you made in step 2 draws away from the base of the barrel by 1/4". This will set the proper preload on the internal spring. **DO NOT TIGHTEN BEYOND THIS POINT!** It will only compromise system performance an increase the risk of damage to system, truck or camper. The turnbuckles can be easily hand tightened. Use a wrench ONLY to tighten and loosen the jam nut which prevents the turnbuckle from twisting loose. *It is a good idea to periodically check the turnbuckles as you stop during your travels.*



REAR TURNBUCKLE INSTALLATION

Unlike the front turnbuckles, the rear turnbuckles do not have an internal spring. Therefore The installation procedures are slightly different. Rear turnbuckles should NEVER be used on the front of the camper.

STEP 1 – [Hardware Kit G]
Assemble the turnbuckle by first screwing a nut onto the 24" threaded hook, then screwing the threaded hook into the barrel of the turnbuckle. **NOTE: The rear turnbuckles are the pair with the shorter (8") barrels.**

STEP 2 – Install the Tiedown Coupler onto the Anchor bolt in the rear bumper.



STEP 3 – Install the turnbuckles, threaded hook up. Tighten by hand only until just snug, then tighten the lock nut. **Caution: Over tightening will damage the rubber damper inside the turnbuckle.** The purpose of the rear turnbuckle is only to prevent bounce. The centering guide locks prevent the camper from shifting.

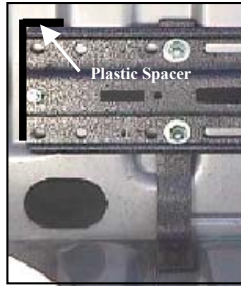
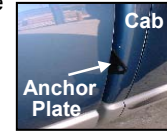
Maintenance: Periodically place a few drops of oil into the turnbuckle barrel at the captive hook end. Also remove threaded hook and lightly oil threads. Clean & wax the barrel frequently to prolong the chrome finish.



STEP 6 – [Hardware Kit B] Install Front Anchors. *This is most easily accomplished if one person pushes the bracket up between the bed and cab from beneath the truck, while another starts the bolts.*

Remove board from between bed & cab and slide black front Anchor plate assembly into place. Put the black plastic spacer Under the outer holes in the guide plate to fill the void, then start (do not tighten) all 4 bolts through guide plate into threaded holes in black anchor plate.

Hint: The bolts will start easier if prior to installation on truck, you run the bolts through the threaded holes in the anchor plate to clear out paint.

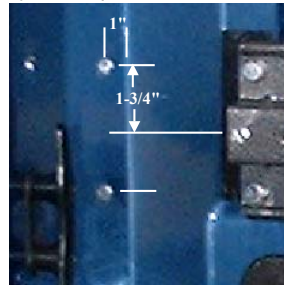


STEP 7 – Set the "L" shaped frame braces straight up and down with the foot against the inside edge of the flute, along side the weld seam. Tighten the nuts holding the frame brace to the guide plate.



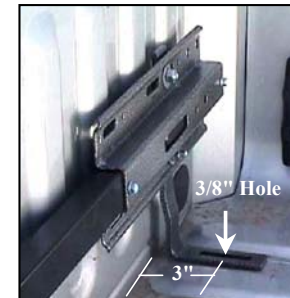
STEP 8 – [Hardware Kit J] Using the #10 self drilling & self tapping screws, install 2 screws through bed front wall into the black anchor plate at the locations shown below. **NOTE: A small pilot hole may be drilled but is normally not necessary as this particular screw will drill it's own pilot.** Use a punch to start either the screw or pilot bit to avoid drift.

Set 1-3/4" each side of a center line drawn from the guide plate & approx. 1" back from bend in bed front wall.

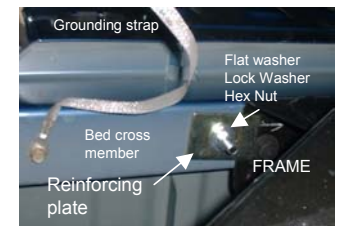


STEP 9 – [Hardware Kit D]
Drill 3/8" dia. Hole through frame brace foot, bed, and frame/bed cross member 3 inches back from bed front wall.

Make sure drill is as close to vertical as possible in all directions.



STEP 10 – Insert 5" carriage bolt through hole and secure from beneath truck with reinforcing plate, flat washer, lock washer & hex nut. The reinforcing plate will rest over the edge of the frame tab



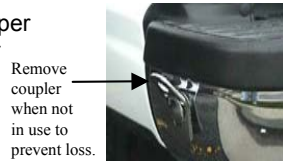
THIS COMPLETES THE FRONT ANCHOR INSTALLATION.

3

REAR ANCHOR INSTALLATION

NOTE: Rear anchors are installed in the end of the bumper. There is no precise mounting location since a variety of bumpers may be installed. The general guidelines are as follows:

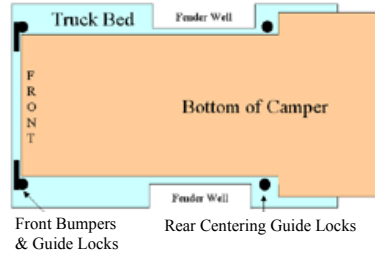
1. Mounting location should be as flat & vertical as possible.
2. Be sure no moldings or bumper caps interfere with the removable coupler.
3. Check back side of selected mounting location to ensure adequate access for tightening nut.
4. Choose a location as far back as possible from the front edge of bumper while giving consideration to the other criteria listed above and center punch and drill a 1/8" pilot hole, then enlarge to 1/2".
Install Anchor Bolt with 2" fender washer, lock washer & nut.
Flat edges of Anchor Bolt must be horizontal.



4

REAR CENTERING GUIDE LOCK INSTALLATION (Optional)

STEP 1 – Determine approximate mounting location for the rear centering guide locks.



STEP 4 – Once the proper width has been determined and marked, determine depth (front to back) at which centering guide locks should sit.

NOTE: It is very important that the rear centering guide locks are placed far enough forward to allow the camper to fully load if there are box-outs behind the wheel wells.

Once both width and depth points are determined proceed to step 5.

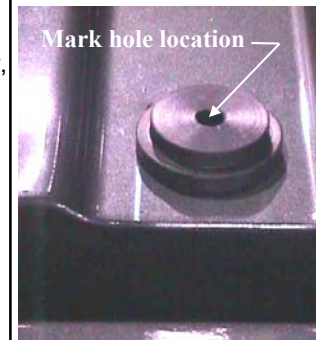
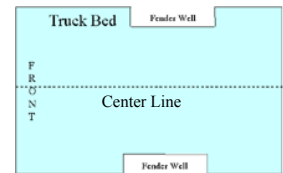
STEP 5 – Place the base of the rear centering guide lock such that the inner edge is adjacent to the width mark and at the measured depth. Use a felt tip marker to mark the center hole of the base.

Warning: Before drilling, check the underside of the bed at this location to ensure clear access, free of braces, wiring, etc.

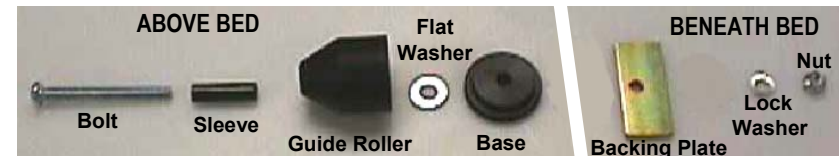
If necessary, adjust depth position to avoid such obstructions. Remove the base and use a punch to dimple prior to drilling, then drill a 3/8" hole at this location.

STEP 2 – Measure the width of the bottom of the camper at the widest point which will pass through the rear centering guide locks when loading and record this measurement.

STEP 3 – Locate the centerline of the truck bed then measure 1/2 the width measurement taken in step 2 plus 1/4" each side of center, for location where the rear centering guide lock will sit. Mark these points.



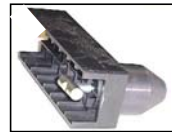
STEP 6 – [Hardware Kit F] Assemble the rear centering guide lock components as shown below and secure from beneath the bed.



FRONT CENTERING GUIDE LOCK & BUMPER INSTALLATION

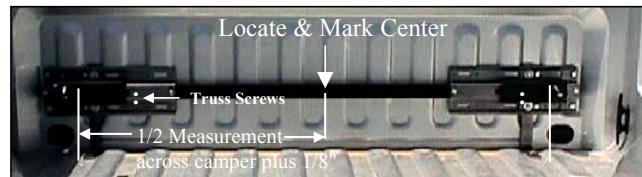
STEP 1 – [Hardware Kit E]

Assemble the Front Centering Guide Lock & bumper assembly by inserting the long stove bolt into the metal sleeve and cone, through the flat washer & bumper then turn special bar nut onto bolt flush with end of bolt.

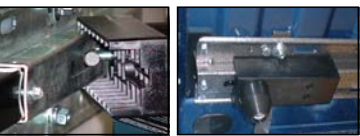


STEP 2 – Slip special bar nut into slot in guide plate & stabilizer bar, with the cone toward the outside of the bed then seat the bumper against the guide plate. (do not tighten at this time). Do the same for the other side.

STEP 4 – Locate and mark the center of the front anchor Assembly.



Set the bumper and centering guide lock such that the inner edge of the cone/roller is 1/2 the distance measured across the front of the camper plus 1/8" measuring from the center mark you made on the stabilizer bar, then tighten the bolt in the center of the cone. As you do, the bar nut will turn and lock down against the inside of the tube. Recheck positioning to be very sure that the guides are on center and spaced a total of 1/4" wider than camper, then drill 3/16" pilot hole at the truss screw locations and install the 1" long truss screws into the bumper.



STEP 3 – Measure the width of the front of the camper at the height at which it will rest against the bumper just installed and record this measurement.

HARDWARE KIT DESCRIPTIONS:

<p>KIT A USB-010 MOUNTING HARDWARE</p> <p>4 Ea. #14 x 3/4 x [7/16" Head] Sheet Metal Screws</p>	<p>KIT D LOWER FRAME BRACE MOUNTING HARDWARE</p> <p>2 Ea. 3/8" X 4 1/2" Carriage Bolts</p> <p>2 Ea. 3/16" Thick Backing Plates</p> <p>2 Ea. 3/8" Flat Washers</p> <p>2 Ea. 3/8" Split Lock Washers</p> <p>2 Ea. 3/8" Hex Nuts.</p>	<p>KIT F REAR CENTERING GUIDELOCK MOUNTING HARDWARE</p> <p>2 ea. Roller Sleeves</p> <p>2 Ea. 3/8" x 3 1/2" Pan Head Slotted Bolts</p> <p>2 Ea. 1-1/4" x 3" x 1/4" Backing Plates</p> <p>2 Ea. 3/8" Flat Washers</p> <p>2 Ea. 3/8" Split Lock Washers</p> <p>2 Ea. 3/8" - Hex Nuts</p>
<p>KIT B BLACK ANCHOR PLATE MOUNTING HARDWARE</p> <p>4 Ea. #8 x 1/2 x [1/4" Head] Sheet Metal Screws</p> <p>8 Ea. 3/8" - x 1" x [9/16" Head] Fine Thread Hex Bolts</p>	<p>KIT E FRONT CENTERING GUIDELOCK & BUMPER MOUNTING HARDWARE</p> <p>2 ea. Roller Sleeves</p> <p>2 Ea. 3/8" x 3 1/2" Pan Head Slotted Bolts</p> <p>2 Ea. Special Bar Nuts</p> <p>2 Ea. 3/8" Flat Washers</p> <p>4 Ea. #10 x 3/4" Philips Sheet Metal Screws</p>	<p>KIT G TURNBUCKLE LOCKING HARDWARE</p> <p>4 Ea. 1/2" Hex Nuts</p>
<p>KIT C UPPER FRAME BRACE MOUNTING HARDWARE</p> <p>4 Ea. 3/8"- x 1" Square Shank Plow Bolts</p> <p>4 Ea. 3/8" Flat Washers</p> <p>4 Ea. 3/8" Split Lock Washers</p> <p>4 EA. 3/8" Hex Nuts.</p>		<p>KIT H REAR ANCHOR MOUNTING HARDWARE</p> <p>2 Ea. 1/2" Hex Nuts</p> <p>2 Ea. 1/2" Split Lock Washers</p>