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U.S. RACK,™ Inc. - 2850 Falcon Drive, Madera, CA 93637 - 559-661-3050

### INSTRUCTIONS for the V-RACK

**WARNING: Do NOT attempt to install or use this rack without following all instructions.**

### **SPECIFICATIONS and SAFE LOADING REQUIREMENTS**

These instructions are intended for use upon pickup trucks that have a hole in the rear bumper which has a hole for mounting a trailer hitch ball. This rack is designed to carry canoes and kayaks but can also carry ladders, lumber, or other cargo. This load must not exceed a total of 250 lbs., where a least half of the load is carried by a roof or other rack and when the load on the V-Rack does not exceed 125 lbs.

**This rack is designed to carry loads, which are spread across the width of the crossbar and shared evenly between the front and rear crossbars. It is not designed to carry loads where a force of over 100 lbs. is concentrated on any space less than 12 inches wide along the crossbar. This product is not warranted for use off-road or on unimproved or poorly maintained or bumpy roads.** All loads must be tied down securely to the rack to prevent them from vibrating or sliding forward, backward, laterally or being blown off or broken by wind. This rack relies upon the proper functioning of the tailgate. Check the latch mechanism to ensure that the tailgate does not open unless the release handle is activated. The manufacturer does NOT warranty any automotive product and does not warranty truck bed rails against damage caused by the weight of excessive loads being applied to them when the rack is installed on a vehicle. **The manufacturer is not responsible for injury or property damage resulting from the rack being improperly installed or improperly loaded, nor is it responsible for injury or property damage resulting from loads or parts of loads falling or being blown off a vehicle.** Loads extending beyond the rear bumper of the vehicle must be designated with a red flag during daylight or red light during darkness in accordance with the state vehicle code.

**BE SAFE: Carrying any load can be hazardous. Make sure all parts of all loads are securely tied down against unexpected winds and vibrations caused by road hazards such as potholes. Check each time you install the rack, load the rack, as well as daily to ensure that all connections are tight. Avoid roll over. As with all racks, ensure that loads are not top-heavy. Loads should be placed so that the center of mass of the load is no closer than 24" from the ends of the crossbar. High loads must be transported with GREAT CAUTION to prevent loads from striking low overhead objects and from tipping during turns, abrupt stops, or high winds.**

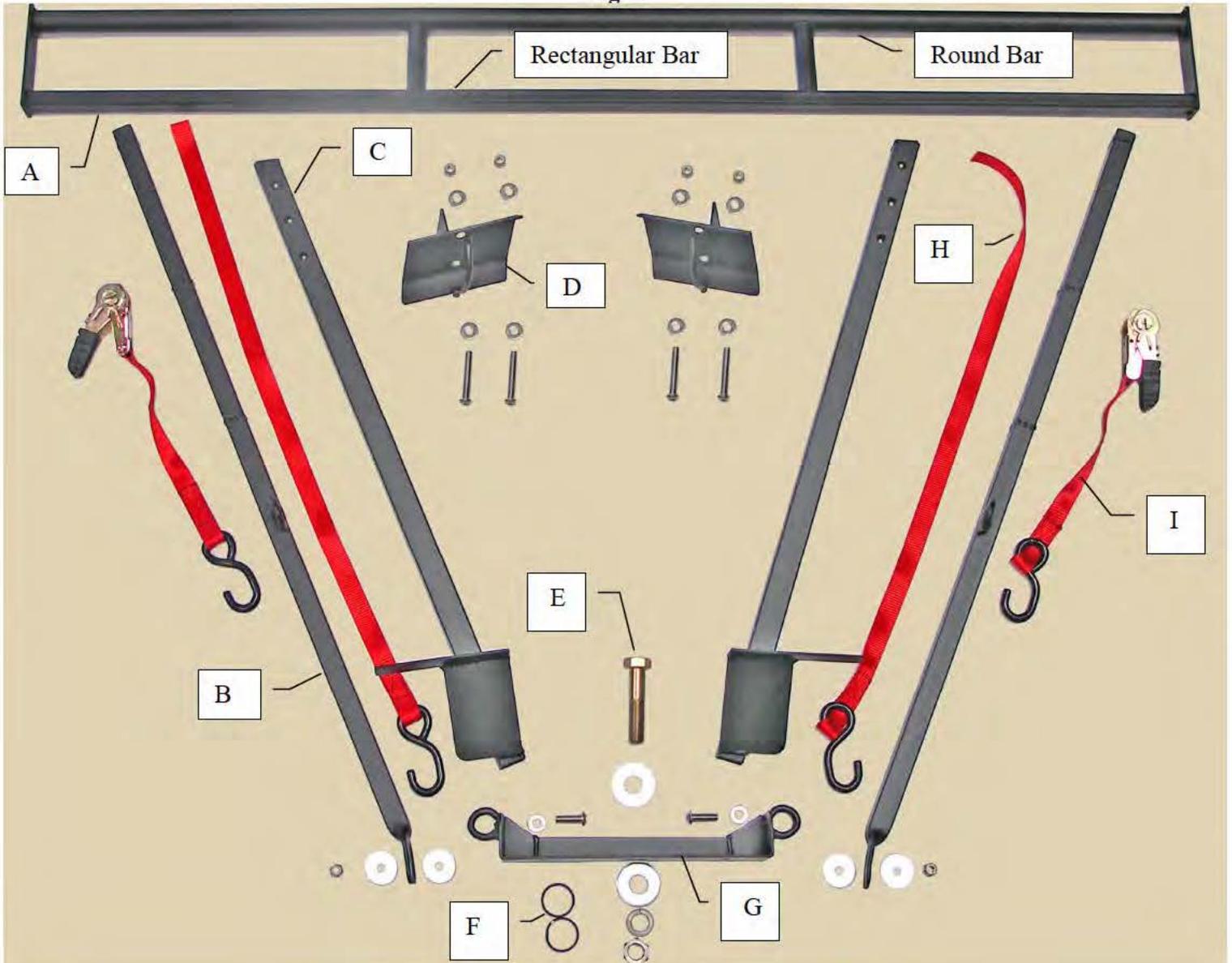
### WARRANTY

This product is warranted for a period of one year against all structural defects in materials and workmanship provided that they are assembled, installed, and used in accordance with all manufacturer's specifications and instructions. The manufacturer **cannot warrant the powder-coating** on its products. Normal use of any powder-coated rack and exposure to weather can result in scratching of the surface, exposing metal below; therefore, maintenance on your rack will be required. To prevent rust, spot paint any scratches or breaks in the surface with a high quality metal paint. **Merchandise must be returned in the original box and packaging.** See return policies and procedures at [http://www.usrack.com/merchandise\\_return\\_policy.php](http://www.usrack.com/merchandise_return_policy.php)

### INVENTORY

**Your safety is paramount.** Before assembling the rack, inventory and inspect all parts. Visually check each part to ensure it corresponds to the inventory list and check all welds for signs of cracking or weakness. If you do not have all the correct parts or if any parts appear to be defective, STOP! Do NOT install the rack. Contact customer service at 1-888-877-2257 to replace missing or defective parts. If you have any questions about installation, call customer service. We will be happy to help.

Fig. 1



**The V-Rack consists of these parts:**

- A. Dual Crossbar (x1)
- C. Upper Leg (left and right)
- E. 3/4" Screw (x1)
- G. Base (x1)
- I. Strap and hook with ratchet (x2)

- B. Lower Leg (x2)
- D. Grip Plate (left and right)
- F. Spacer Rings (1 narrow, 1 thick)
- H. Strap and hook, free end

ADDITIONAL HARDWARE: 3/8-16 X 2.5" button head cap screw (x4); 3/8-16 X 1.25" button head cap screws (x2); 3/8-16 nylon lock nuts (x6); flat washers (x10); small fender washers (x4); large fender washers (x2); split lock nut (x1); 3/4" hex nut; Allen wrench (x1)

*NOTE THAT SCREWS AND SMALL PARTS MAY BE FASTENED TO OTHER PARTS*

**ASSEMBLY and INSTALLATION**

Read ALL instructions through once BEFORE you do anything!



1. **Attach Base Plate to Bumper.** After you have inventoried and inspected all parts, examine the bumper of your vehicle, the Spacer Rings (F) and the Base (G). If your bumper is similar to the one in Fig. 2, there is a plastic pad attached to the top of the rear bumper where the hitch ball hole is located. Generally, there is larger diameter hole in the plastic pad around the hole through the bumper. In order to fit this space, select one of the rings that most closely matches the thickness of your pad, and place it on the bumper as shown in Fig. 3. Place the Base Plate over the hole as shown in Fig. 4. Attach the Base Plate to the bumper with the 3/4" screw as shown in Fig. 5, using a large flat washer under the head of the bolt and under the bumper plus the split lock washer and the nut. Tighten firmly with wrenches. If you have a hitch ball, you may install it in the same manner as the large screw. You should be able to attach a trailer in the typical manner as long as the ball is properly installed and tightened. If your ball hitch hole is blocked you may use the alternate mounting holes and 3/8" screws, washers and nylon lock nuts to secure the Base to the bumper.



Fig. 2



Fig. 3



Fig. 4



Fig. 5

2. **Attach Ratchet Straps.** Examine the Strap and hook with the ratchet (I). Lower the tailgate part way and feed the hook of each ratchet strap down in the crack between the bed and the tailgate so that the hooks align with the rings on the Base plate. Attach the ends of the hooks through the rings and pull up on the ratchet end to take up the slack as shown in Figs. 6 and 7. Close the tailgate and lay the ratchets down in the bed as shown in Fig. 8.



Fig. 6



Fig. 7

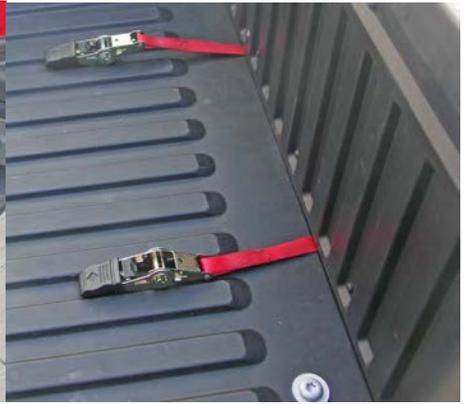


Fig. 8

3. **Attach Legs.** Pick up and examine the Lower Legs (B) and Upper Legs (C). Notice that the Upper Legs are mirror images of each other. Notice also that the top end of the Lower Legs can be inserted into the bottom of the Upper Legs and that the bottom of each Lower Leg has a hole in it. As shown in Fig. 9, use a short button head cap screw, two flat head washers, a fender washer and a nylon lock nut to attach the bottom of the Lower Leg to the Base. Note that the Lower Leg is on the OUTSIDE of the Base, and that the larger fender washer is sandwiched between the Leg and the Base. Ensure that when connected, the Legs flare outward. After attaching the Lower Legs to the Base, slide the Upper Leg down onto the end of the Lower Leg. Notice that there is a long flat narrow horizontal plate that is attached to the Upper Leg. As you slide the Upper Leg down onto the Lower Leg, allow the plate to rest on top of the tailgate. As shown in Fig. 10, take the hook with the strap and the free end and insert the hook into the ring at the bottom of the Upper Leg. Pull the strap toward the outside of the vehicle and loop it over into the truck bed. Ensure that the strap goes over the top of the plate and then down toward the ratchet in the bed. Attach the free-end strap into the ratchet and tighten as shown in Fig. 11. Attach the other Leg in the same manner and tighten both ratchet straps securely so that both Legs are pulled securely against the back of the tailgate and down onto the top of the tailgate.



Fig. 9



Fig. 10



**Fig. 11**



**Fig. 12**

4. **Attach Dual Crossbar to the Legs.** Place a metal washer on a long button head cap screw and insert it all the way through the middle hole near the top of each Leg as shown in Fig. 13. As shown in Fig. 14, CAREFULLY hang the Dual Crossbar (A) on these screws. Put the rectangular bar on top if you have Thule accessories, and put the round tube on top if you have Yakima or other brand accessories. Examine the Grip Plates (D) and notice that they are a mirrored pair. If you hold them by the metal loop in front of the screws, you will notice that the hole pattern leans either to the left or to the right. Align the holes in one of the Grip Plates with the hole pattern in the Leg. You may have to turn the Grip Plate upside down or move to the other Leg to align the holes. If you wish to place the crossbar in the low position, which is used for most trucks, CAREFULLY slide the hole at the top of the Grip Plate over the end of the screw; add a metal washer and then screw on a nylon lock nut as shown in Fig. 15. If you wish to place the crossbar in the high position, which is used for trucks with extra tall cabs, CAREFULLY slide the hole at the bottom of the Grip Plate over the end of the screw; add a metal washer and then screw on a nylon lock nut. Secure the other end of the crossbar to the Leg with a Grip Plate in a similar manner. Add an additional screw with washers and a nut to each of the Grip Plates as shown in Figs. 16, 17 and 18.



**Fig. 13**



**Fig. 14**



Fig. 15

Fig. 16



Fig. 17



Fig. 18



Fig. 19

#### 5. CAUTIONS:

- After the rack is assembled ensure that all fasteners and the ratchet straps are tight. In order to remove the rack you may loosen the ratchet straps to lower it down with the tailgate. Be CAREFUL, however, because although there is rubbery padding on the bottom of the plates that make contact with your tailgate, as you raise or lower the tailgate you may make contact between the legs of the rack and the painted surfaces of the tailgate. The recommended SAFE way to remove the rack is to first loosen the ratchet straps and unhook the hooks, and lower the rack slowly to the ground, THEN open the tailgate.
- Check periodically to ensure that all fasteners and straps are tight. Vibration can cause fasteners to loosen threaded parts and wet weather and changes in temperature may cause the straps to become slack. Check these frequently.
- As shown in Fig. 19, this rack is designed to be used in conjunction with a roof rack, which helps stabilize it. Do not attempt to use this rack without another rack to increase horizontal stability.
- This rack is designed to work with a tonneau cover, but when first installing the rack, gently close the tonneau to ensure there is no interference with the rack which might cause damage.
- This rack will fail if the tailgate opens. Ensure your tailgate is in good working order. Test it to ensure it's closed, each time you use the rack.