

Texas Truck Racks Crane/Hoist

Installation Instructions

Your crane/hoist from Texas Truck Racks includes the following items:

- The welded **mast/boom/brace** structure with upper and lower **bushings** inserted.
- **The upper mounting plate.** All crane/hoist applications-with the exception of the Ram ProMaster models- are approximately 2.75" x 5" x 3/16" with 4-3/8" drilled holes. The plate has 2 welded attachment points with 1/2" drilled holes. The upper mounting bracketes are specific to the Promaster.

NOTE: This applies to KUV Cranes ONLY. KUV's upper mounting plates attach to and through the roof and will include a matching **upper mounting plate** that mounts on top of the roof and "sandwiches" the plate inside the vehicle. It will also include a sheet of 1/16" rubber gasket material that goes between the roof and outside mounting plate. Through the roof hoist mounts also include a **tube of clear silicone** to add an extra level of protection from moisture.

- **6" or 8" section of 1.3" diameter schedule 40 pipe** with 1/2" drilled hole. This attaches to the upper mounting plate. It may be preassembled.
- The **lower mounting plate**, a 5" x 5" x 1/4" plate with 4-3/8" drilled holes and a 4" section of 1.3" diameter schedule 40 pipe centered and welded to the plate.
- 150 amp resettable circuit breaker.
- 2-3" diameter wire **sheaves** that mount inside the boom.
- 4-3/4" **step spacers.**
- 2-2" **shoulder bolts** with 2-3/8" nylon insert lock nuts.
- 1-1 3/4" **shoulder bolt** with 1-3/8" nylon insert lock nut. (For upper mounting bracket assembly)
- **Upper mounting plate bolt kit: except Ram ProMaster**
 - 4-5/16" x 1" Gr 5 zinc plated hex bolts.
 - 8-5/16" zinc plated flat washers.
 - 4-5/16" zinc plated nylon insert nuts.
- **Lower mounting plate bolt kit:**

NOTE: Depending on the exact location of the lower mounting plate, the bolts included may not be the correct length. The installer is responsible for acquiring and installing the mounting plate with the correct size Gr 5 bolts.

4-5/16" x 1 1/2" zinc plated Gr 5 hex bolts.

8-5/16" zinc plated flat washers.

4-5/16" zinc plated nylon insert nuts.

- **Hoist to Mast Mounting Bolts.** (The winch includes mounting bolts for this attachment. The longer Gr 8 bolts are included for additional length, if needed)

2-5/16" x 1 1/4" Gr 8 hex bolts

4-5/16" zinc plated flat washers

2-5/16" split lock washers.

2-5/16" Gr 8 hex nuts.

1. The hoist is designed to be installed on either side of the vehicle-driver or passenger. The upper mounting bracket assembly adjusts up or down which provides a range of side to side installations.
2. The winch can be mounted with the motor facing in either direction-pointing to the inside or outside of the vehicle. This feature adds another level of flexibility in mounting options. If the motor is mounted upside down, the up and down arrows on the remote control will be reversed also.
3. Insert both upper and lower mounting brackets in the mast.
4. Place the hoist-without the winch at this point-in the approximate location you plan to install it. Swing the boom to make sure it clears any shelving units or other cabinets, tank holders, etc. Now, hold the winch in the mounted position for a trial fit and swing the boom again, making sure it clears shelves, etc. with the winch in place. Make sure the door will close properly.
5. After you've decided on the best location for the hoist, check under the vehicle to avoid any potential interference with electrical wires, brake lines, cross members, etc.

6. Upper mounting location is usually in the door panel above the door. The upper bracket swivels to allow best mounting position. 5/16" x 1" Gr 5 hex bolts are supplied but, depending on your selected mounting position, a different length bolt may be required but not included in bolt kit. Avoid blind fasteners if at all possible. The weight of the item being loaded and unloaded will pull against the door panel when the item is lifted inside the vehicle as well as push against it when the load is outside the vehicle.

7. The winch included with your hoist includes a roller fair lead with mounting plate.

8. Free spool about 5' to 6' of cable from the winch according to the manufacturers' instructions.

9. Mount the winch to the hoist in the position you have chosen.

10. Thread the leading end of the winch cable-without the hook attached-through the slot in the bottom of the hoist nearest the mast and then out through the slot on the other end of the mast.

11. At this point, it's time to install the sheave assemblies. Each consists of 2-Step Spacers, 1-1/2" x 2" Shoulder Bolt with 3/8" nylon lock nut, and 1-3" Sheave. Start with the sheave to be mounted closest to the mast, just below the winch.

12. Insert the step spacers in opposing holes and start to push the shoulder bolt through one of the spacers. Push the sheave up into the slot making sure the wire is in the groove of the sheave. Push the bolt through the spacer and through the hole in the sheave. Continue to push the bolt through the second spacer and thread the 3/8" nylon insert nut onto the bolt.

NOTE: Make sure the wire is in the groove of the sheave.

13. Tighten the bolt and nut.

14. Repeat the process for the forward sheave.

15. Attach the hook to the wire.

16. Position the hoist in the vehicle in the location to be installed. Double check that the hoist is properly positioned and that the door opens and closes properly.

Mark and drill holes for the upper bracket first and install.

Mark and drill holes for the lower bracket and install.

17. Follow the instructions that come with the winch for the proper electrical installation.

18. We have included a 150A resettable circuit breaker with your crane/hoist. It should be installed as close to the vehicle battery as possible-usually on the wheel well near the battery. This provides an additional level of protection for your battery and vehicle electronics.

NOTE: Failure to install the winch according to the instructions provided with the winch could cause damage to your battery, your winch, wiring, and damage to your vehicles electrical systems. **We strongly recommend professional installation.**