## sportQUEST Roof Rack

### Pad Mount with Optional "Pass Thru/Stanchion Fit" Hardware Sheet Metal Roof Installation

**WARNING:** The mounting hardware included in this rack is not recommended for use on fiberglass or composite material truck covers. If installing this unit on a fiberglass / plastic surface, please obtain supplemental hardware pack HWSTTC-UV from your distributor or contact PERRYCRAFT, INC. at 800-777-7081 for additional assistance or technical support if needed.

**Caution:** External roof racks do not increase the GVWR of the vehicle. Maximum load for this rack is 180 lbs. evenly distributed on crossbar assemblies. Keep in mind that torque applied to any straps, cords, etc. between the load and the vehicle body effectively add "load weight" to crossbars and the roof. Large or flat items such as plywood or watercraft can trap air and create wind lift. Secure the ends of such objects directly to the vehicle bumpers or tie downs. Bulky or tall loads can create tremendous horizontal wind resistance from headwinds and crosswinds. Extreme caution should be used when transporting such loads, taking into consideration road conditions, vehicle speed, crosswinds, load securing methods, etc. Large, bulky, tall or flat objects should be properly secured to both crossbars and other attachment points on the vehicle body. *PERRYCRAFT, Inc.* does not assume responsibility for style or size of rack installed, improper rack installation, exceeding rack load limit, load securement methods, vehicle roof strength, wind lift or any other factors beyond its control. All fasteners, knobs, and load securements should be checked frequently and tightened as necessary.

**IMPORTANT NOTE**: The enclosed Warranty/Consumer Information card must be fully completed by installation center and reviewed with the consumer (end-user), and given to the consumer. In the event of a potential warranty issue, failure by the consumer to provide Mfg. with a copy of the completed document will void warranty coverage.

**CONTENTS:** 2-Crossbars, 4-Stanchion Assemblies, 4-Pad Assemblies, 1-Hardware Pack (4-Pad Clamp Blocks, 8-6Mx12mm Socket Head Cap Screws, 4-3/16" Drive Rivets, 12-#10x1/2" Bi-waxed Pan Head Phillips Screws, 4-Crossbar End Plugs, 4-Stanchion Plugs, 4-1/4"-20x7/8" Socket Head Cap Screws, 4-1/4" Stainless Steel Flat Washers, 4-1/4"-20 Nylock Nuts, 1-3/16" Allen Wrench, instruction sheet, and 1-Warranty/Consumer Information Card).

**TOOLS REQUIRED:** Tape Measure, Hand Drill, 1/8" & 1/4" Drill Bit, Non-Permanent Marker, Phillips Head screwdriver, Flat Head Screwdriver, 7/16" Wrench or Adjustable Wrench, and Metal cutting saw (if option 2 is chosen).

This "Pass-Thru/Stanchion-Fit" Model provides the choice of two configurations of the stanchions and crossbars at the time of installation:

**Option 1:** Pass-Thru Crossbars: Extend the crossbars through the stanchions

**Option 2:** Stanchion-Fit Crossbars: Cut the crossbars to appropriate length to provide exact fit between the stanchions

# **IMPORTANT:** Once stanchion-to-crossbar configuration option is chosen, completely review the instructions for that option before proceeding with the installation.

- **Note:** For either option, the installer must select spacing between the stanchions appropriate for the vehicle roof, keeping in mind the following:
  - a. For vehicles with smooth roofs (no roof ribs) the stanchions should be mounted as close as possible to the outer limits of the flat part of the roof, or slightly into "contour" of roof (Pads must mount flat on roof to insure proper seal).
  - b. For vehicles with ribbed roofs use a plateau or valley near the outer edges at least as wide as the pad. Allow for any other roof features such as antennas, sunroofs, etc.

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#### **INSTALLATION:**

#### **Option 1, Pass-Thru Crossbars:**

- 1. Slide the stanchions onto the crossbars to spacing appropriate for the vehicle roof.
- 2. Temporarily fit pad assemblies to stanchions (Do NOT install pad clamp blocks and cap screws at this time).
- 3. Position the stanchion/crossbar assemblies in the desired locations. Front-to-rear spacing between crossbars should be determined by vehicle roof length and the load(s) that will be carried.
- 4. Mark precise location of the pads on vehicle roof using a non-permanent marker, being careful not to shift the assemblies while marking.
- 5. Remove pads from stanchions and re-position at marked locations. **NOTE:** To insure correct reinstallation of stanchions into pads, pads must be mounted exactly in position as marked.
- 6. Mark mounting hole locations and drill 1/8" pilot holes in roof being careful not to penetrate interior headliner.
- 7. Remove drill chips from vehicle roof. Remove liner from Pad gaskets, position and screw mounting pads to roof using #10x1/2" bi-waxed screws. Be careful not to over tighten the screws.
- 8. Reinstall stanchion/crossbar assemblies into pads (**Do NOT** install pad clamp blocks and cap screws at this time).
- 9. Center the crossbars to obtain an equal length of crossbar extending out beyond each opposing stanchion. Visibly mark the location of each stanchion position on the crossbars as shown in Fig 1.
- 10. Remove stanchion/crossbar assemblies from pads.
- 11. Checking to be sure stanchions are still in marked locations on crossbars, drill 3/16" holes through bottom side of crossbars in hole in stanchions as shown in Fig. 2.
- 12. Insert the 3/16" Drive Rivets into drilled holes, and tap mandrel pin firmly with hammer until flush with rivet head.
- 13. Reinstall stanchion/crossbar assemblies into pads and install pad clamp blocks using the 6mx12mm cap screws. Install the crossbar end caps.

#### **Option 2, Stanchion-Fit Crossbars:**

- 1. Temporarily fit pad assemblies to stanchions (Do NOT install pad clamp blocks at this time).
- Fit plug and 1/4"-20 x 7/8" cap screws into two stanchions, attach from bottom of stanchion using 1/4" flat washer and 1/4"-20 nylock nut as shown in Fig. 3. Slide stanchions onto one end of each crossbars. Insuring that crossbar ends are butted against stanchion plugs, drill 3/16" hole to accommodate Drive Rivets as shown. Tap Drive Rivet mandrel pin firmly with hammer until flush with rivet head.
- 3. Slide remaining stanchions onto opposite ends of each crossbar to spacing appropriate for the vehicle roof.
- Position the stanchion/crossbar assemblies in the desired locations. Front-to-rear spacing between crossbars should be determined by vehicle roof length and the load(s) that will be carried.
- 5. Mark precise location of the pads on vehicle roof using a non-permanent marker, being careful not to shift the assemblies while marking.
- 6. Remove pads from stanchions and re-position at marked locations. **NOTE:** To insure correct re-installation of stanchions into pads, pads must be mounted exactly in position as marked.
- 7. Mark mounting hole locations and drill 1/8" pilot holes in roof being careful not to penetrate interior headliner.
- 8. Remove drill chips from vehicle roof. Remove liner from Pad gaskets, position and screw mounting pads to roof using #10x1/2" bi-waxed screws. Be careful not to over tighten the screws.
- 9. Reinstall stanchion/crossbar assemblies into pads (**Do NOT** install pad clamp blocks and cap screws at this time).
- 10. With stanchion/crossbar assemblies temporarily installed, mark end of crossbars on end extending through stanchion at end of cavity as shown in Fig. 4.
- 11. Remove stanchion/crossbar assemblies from pads. Remove "free" stanchions from crossbars, and square cut the crossbars as marked.
- 12. Repeat Step 2 above for "free" stanchions.
- 13. Re-install stanchion/crossbar assemblies into pads and install pad clamp blocks using 6Mx12mm cap screws. Tighten securely.

1/4"-20 x 7/8" Socket Head Cap Screw Crossbar Stanchion Plug Stanchion Drill 3/16" Hole, Install Drive Rivet 1/4" Flat Washer Fig. 3 1/4"-20 Nylock Nut



Fig. 2 Drill 3/16" Hole &

Drill 3/16" Hole & install Drive Rivet

