SportQuest Roof Rack - SM Track-Mount Style with Optional "Pass-Thru/Stanchion-Fit" Hardware

Sheet Metal Roof Installation

WARNING: Do not use sheet metal screws to attach roof racks to fiberglass roof panels! External roof racks do not increase the GVWR of the vehicle. Maximum load for this rack is 150 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.

For technical assistance, please contact PERRYCRAFT, INC. at 800-777-7081.

IMPORTANT NOTE: The enclosed Warranty/Consumer Information card must be fully completed by installation center and reviewed with the consumer (enduser), 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.

ATTACHMENTS: Perrycraft, Inc. offers a wide range of Sports Equipment Carriers, general load brackets, cargo baskets, and load securement straps. Contact your Perrycraft distributor or our Customer Service Department for more information.

CAUTION: The mounting hardware included in this rack is not recommended for use on fiberglass or composite material truck covers. Please contact the distributor from whom the unit was purchased for alternative methods of attachment, or call Perrycraft Customer Service for technical assistance.

Test fit the rack before drilling any mounting holes. This rack fits many vehicles, therefore the factory "bow" in the side rails (tracks) may or may not exactly match the roof contour of the particular vehicle on which it is being installed. Prior to attaching the crossbars, place the side rails on the vehicle roof in the approximate location to be installed. The ends of the side rails should touch the roof surface and the center of the rails should be no more than $\frac{1}{2}$ off the roof surface. To adjust the "bow", place the empty carton on the ground as a cushion. Hold one end of the rail in one hand, placing the other end on the carton and apply moderate pressure with the other hand to the area of the rail needing adjustment.

CONTENTS: 2-Side Rail Assemblies, 2-Crossbars, 4-Stanchion Assemblies, 1-Hardware Pack (4-Crossbar End Plugs, 4-Stanchion/Track Clamp Brackets, 4-Adjustment Knobs, 4-3/16" Drive Rivets, 4-Stanchion Plugs, 4-6mm x 25mm Socket-head Cap Screws, 4-Side Rail End Caps, *-#10 x 1/2" Bi-waxed Truss-head Screws, 4-#10 x ³/₄" Bi-waxed Pan-head Screws, 1-Allen Wrench, 1-Instruction Sheet, and 1-Warranty/Consumer Information Card). * - Quantity of #10 x 1/2" Screws enclosed will vary according to side rail (track) length.

TOOLS REQUIRED: Tape Measure, Power Drill, 1/8" & 3/16" Drill Bits, Phillips Screwdriver, Flat-blade Screwdriver, Hammer, Non-permanent Marker, 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-Through Crossbars: Extend the crossbars through the stanchions. See reverse side of this sheet.

Option 2. Stanchion-Fit Crossbars: Crossbars must be cut at the time of installation. See Page 3 of this instruction sheet.



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Option 1, Pass-Thru Crossbar Fitment:

- 1. Determine desired location of rack on vehicle roof by selecting spacing between the side rails appropriate for the vehicle roof, keeping in mind the following:
 - a. For vehicles with smooth roofs (no roof ribs or recesses), the side rails should be mounted as close as possible to the outer limits of the flat part of the roof, or slightly into the "contour" of the roof.
 - b. For vehicles with ribbed roofs, use a plateau or valley near the roof's outer edges at least as wide as the side rail base. Allow for any other roof features such as antennas, sunroofs, etc.
- 2. Measure vehicle roof to determine maximum rack width possible.
- Make note of this measurement.
- 3. Remove toggle assemblies from stanchions.

Screwdriver Blade Toggle Pin

- 4. Install crossbar end plugs.
- 5. Push one stanchion onto one end of each crossbar until end of crossbar is flush with end of cavity.
- 6. Push one stanchion onto other end of each crossbar, positioning each stanchion relatively equidistant from end of each crossbar.
- 7. Insert stanchion/track clamp brackets into side rails by tilting slightly & sliding under lip of rail. Slide stanchion foot brackets into the stanchion/track brackets, aligning bracket ends. Install adjustment knobs into threaded holes in stanchion/track clamp brackets.



- 8. Position stanchions along side rails between mounting holes and in from ends of side rails approximately 12-18", and tighten adjustment knobs.
- 9. Slide stanchions inward/outward along crossbars until desired overall nominal outside spacing between side rails is obtained (refer to Step 2 above).

- 10. Measure and note distance from end of cavity to end of crossbar, and divide by 2. visibly mark top of crossbars from each end using the resulting dimension, and slide stanchions until ends of cavities are aligned with marks.
- 11. With assembled rack on flat surface, measure overall outside width of side rails to insure equal width at front and rear of assembled rack.
- 12. Using carton or other cushioning material to avoid damage to crossbars and/or stanchions, turn rack upside down, exposing bottom of stanchions. Check to be sure that stanchions are still in marked locations on crossbars.
- 13. Drill 3/16" holes through bottom side of crossbars at center of the oval-shaped hole in stanchion. Insert the 3/16" drive rivets through stanchions and drilled holes, and tap rivet mandrel (pin) firmly with hammer until flush with rivet head.
- 14. Place side rails in desired position on vehicle roof, **insuring that rack is centered and squared**. Using masking tape in several strategic locations, temporarily secure rack in position to minimize movement of side rails.
- 15. Mark hole locations on vehicle roof through side rail in last hole at each end of each side rail. Remove masking tape and move rack sufficiently to access marked locations.
- 16. Using 1/8[°] drill bit, drill pilot holes at marked locations, being careful not to penetrate vehicle headliner. Remove drill chips from vehicle roof.
- 17. Re-position rack with holes in side rails aligned with drilled pilot holes. Secure side rails with 4-#10 x ¹/₂" Bi-waxed truss-head screws.
- 18. Rotate adjustment knobs of either crossbar assembly 1-2 turns counter-clockwise and slide to center of side rails, insuring that assembly is equidistant from either end of side rails. Tighten adjustment knobs.
- 19. Drill holes through side rail and vehicle roof at hole location nearest center of each side rail. Remove drill chips, and secure side rails to vehicle roof at these locations with truss-head screws. Repeat this procedure for all remaining holes in side rails. Place side rail end caps in position, drill vehicle roof, remove drill chips, and install with $\#10 \times \sqrt[3]{4}$ " bi-waxed pan-head screws.
- 20. Rotate adjustment knobs 1-2 turns counter-clockwise, slide crossbar assemblies into desired position and re-tighten adjustment knobs to securely lock stanchions in place.

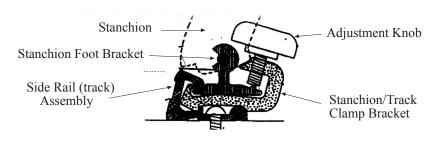
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Option 2, Stanchion-to-Stanchion Crossbar Fitment:

- 1. Determine desired location of rack on vehicle roof by selecting spacing between the side rails appropriate for the vehicle roof, keeping in mind the following:
 - a. For vehicles with smooth roofs (no roof ribs or recesses), the side rails should be mounted as close as possible to the outer limits of the flat part of the roof, or slightly into the "contour" of the roof.
 - b. For vehicles with ribbed roofs, use a plateau or valley near the roof's outer edges at least as wide as the side rail base. Allow for any other roof features such as antennas, sunroofs, etc.
- 2. Measure vehicle roof to determine maximum rack width possible. Make note of this measurement.
- 3. Square-cut each crossbar equal to above measurement **less 6** ¹/₂" **inches**. Example: If overall nominal finished width of rack desired is 44", crossbars should be cut to precisely 37 ¹/₂". File ends of crossbars if necessary to remove any burrs.
- 4. Install stanchions on each end of crossbars.
- 5. Push one stanchion onto one end of each crossbar until end of crossbar is flush with end of cavity.
- 6. Fit plug and 6M x 25mm cap screws into stanchions and align screws with threaded provision in toggle assemblies. Tilt plug slightly to avoid cross-threading, as illustrated:



7. Insert stanchion/track clamp brackets into side rails by tilting slightly & sliding under lip of rail. Slide stanchion foot brackets into the stanchion/track brackets, aligning bracket ends. Install adjustment knobs into threaded holes in stanchion/track clamp brackets.



- 8. Position stanchions along side rails between mounting holes and in from ends of side rails approximately 12-18", and tighten adjustment knobs.
- 9. Place side rails in desired position on vehicle roof, **insuring that rack is centered and squared**. Using masking tape in several strategic locations, temporarily secure rack in position to minimize movement of side rails.
- 10. Mark hole locations on vehicle roof through side rail in last hole at each end of each side rail. Remove masking tape and move rack sufficiently to access marked locations.
- 11. Using 1/8[°] drill bit, drill pilot holes at marked locations, being careful not to penetrate vehicle headliner. Remove drill chips from vehicle roof.
- 12. Re-position rack with holes in side rails aligned with drilled pilot holes. Secure side rails with 4-#10 x ½" Bi-waxed truss-head screws.
- 13. Rotate adjustment knobs of either crossbar assembly 1-2 turns counter-clockwise and slide to center of side rails, insuring that assembly is equidistant from either end of side rails. Tighten adjustment knobs.
- 14. Drill holes through side rail and vehicle roof at hole location nearest center of each side rail. Remove drill chips, and secure side rails to vehicle roof at these locations with truss-head screws. Repeat this procedure for all remaining holes in side rails. Place side rail end caps in position, drill vehicle roof, remove drill chips, and install with $\#10 \times \frac{3}{4}$ " bi-waxed pan-head screws.
- 15. Rotate adjustment knobs 1-2 turns counter-clockwise, slide crossbar assemblies into desired position and re-tighten adjustment knobs to securely lock stanchions