

## Universal Mounting Hardware for Installation on Fiberglass/Composite Surfaces & Sheet Metal Roofs Without Headliners

**This supplemental installation hardware must be used in conjunction with additional parts from the hardware kits contained in standard track-style SporTrek / SportQuest Roof Racks and SportQuest Pad Mount Roof Racks.**

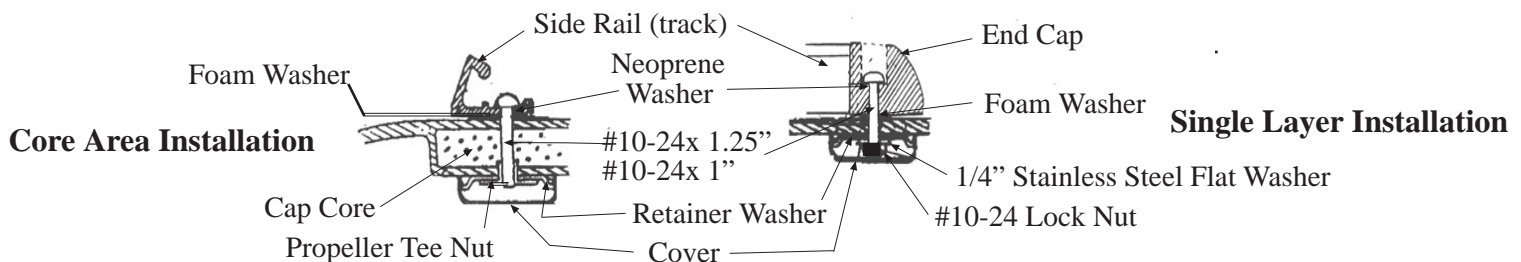
**For SportQuest Pad-Mount installations,** use the enclosed hardware as outlined for use on rails / tracks, except for 1/8" Foam Washers!! Follow original instructions from Pad-mount kit for assembly, substituting original-kit sheet metal fasteners with the special fiberglass mounting components contained in this universal hardware kit.

**Warning: Do not use sheet metal screws to attach roof racks or rails to fiberglass roof panels or vehicles with sheet metal roofs without headliners!** External roof racks do not increase the GVWR of the vehicle. **Maximum load ratings: SportQuest - 180 lbs; SporTrek - 75 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, tie-down loops, 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.**

**Contents:** 8/ea. - #10-24x1" and 4/ea. - #10-24x1 1/4" Stainless Phillips Head Machine Screws; 12/ea. - #10-24 Propeller Tee Nuts, 1 1/8" Retainer Washers and Snap-on Caps, 3/16"x3/8"x1/32" Neoprene Washers, 3/16"x1/2"x1/8" Foam Washers, #10-24 Lock Nuts, 1/4" Stainless Steel Flat Washers; 1/ea. - Instruction Sheet

**Tools Required:** Tape Measure, Hand Drill, 3/16" Drill Bit (2" or longer), 9/32" Drill Bit, Phillips Screwdriver, Pliers and/or Adjustable Wrench.

**Important Note:** For roofs exceeding 1" in thickness, substitute proportionately longer stainless machine screws for the 1" and 1 1/4" screws furnished. For truck caps without sandwiched core roofs, for mounting outside the core area, or for mounting in any fiberglass, composite, or sheet metal roof less than 1/2" thick, substitute enclosed #10-24 lock nuts and 1/4" flat washers for propeller tee nuts. Select/use a minimum of 4 holes in each rail that will provide equal spacing between the fastener positions.

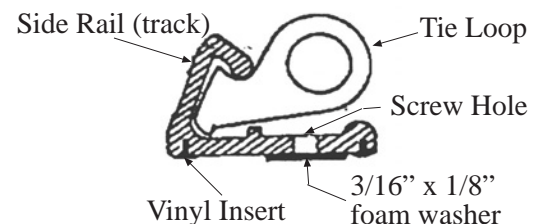


**Sizing/Rail Positioning:** For fiberglass cap or lid installation, prior to assembling rack, measure the size of the "core" (thicker area) area of the cap roof. If mounting inside the core area, side rails should be positioned so that mounting hardware penetrates the core a minimum of 1" in from edges of core. If mounting outside core area (thinner area, or any other roof panel material up to 1/2" thick or sheet metal roofs without headliners), position so that mounting hardware penetrates a minimum of 1" outside edges of core. Next, place the side rails on the cap or vehicle roof in the location to be installed. The ends of the rails should make contact with the roof surface and the center of the rails should be no more than 1/2" off the roof surface. To adjust the "bow" of the rails, suspend the rails between two points so that moderate hand pressure can be applied to the area of the rails needing adjustment (please see standard rack hardware installation instructions for more information on bowing or straightening rails).

Before drilling mounting holes check for appropriate clearances of other cap or roof panel features such as ribbing, embedded wiring, interior roof attachments, etc.

**Rack Assembly:** Note - You may be installing a rack having the number of mounting holes in the side rails designed for sheet metal roof application (more mounting holes than fasteners provided in this kit). If so, select/use a minimum of 4 holes in each rail that will provide equal spacing between the fastener positions. Drill through all roof layers at these holes only! **DO NOT drill at any other hole locations.**

1. Install 3/16"x3/8"x1/32" neoprene washers on all machine screws positioning washers under heads of screws.
2. Install 3/16"x1/2"x1/8" self-adhesive foam washers to bottom of side rails at each mounting hole being utilized.
3. Insert stanchions into ends of crossbars, securing with #8x5/8" screws through holes in underside of crossbars.

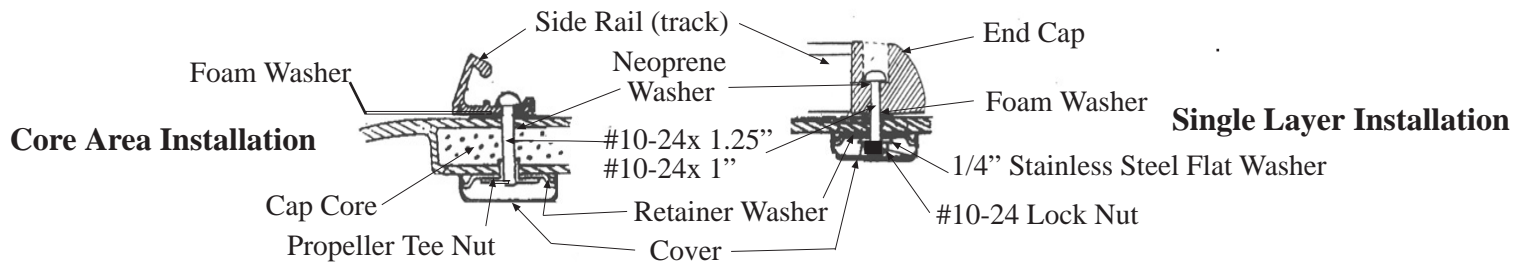


(over)

- Slide Tie Down Loops into rails (see illustration to right) and position in center of rails
- Slide Stanchions onto side rails, positioning them between mounting holes.
- Tighten adjustment knobs sufficiently to hold stanchion in place but loose enough to allow rails to swivel to conform to cap roof contour.

**Rack Installation:** *DO NOT* remove tape liner on PVC roof slats until step 4.

- Position roof rack and PVC slats in desired location on cap or vehicle roof. Allow rails to rotate in stanchions to match roof contour. Tighten adjustment knobs securely. Mark location of rack and slats.
- Remove rack and slats. Recheck location to insure that mounting fasteners will penetrate through core area of roof a minimum of 1" inside or outside the outer edges of core area, based on desired mounting location relative to core area.
- Clean roof where slats will be applied using an adhesive prep solution such as Pro Bond, Tite-R-Bond or denatured alcohol. Roof surface **MUST** be free of dust, dirt, wax, oil, etc. to insure proper tape adhesion.
- Remove tape liner from bottom of slats, place in position and press firmly over the length of the slats. **DO NOT** allow tape to contact roof surface until slats are in desired position.
- Reposition rack in desired location. Beginning with pre-drilled holes nearest each end of each rail, select/use a minimum of 4 holes in each rail that will provide equal spacing between the fastener positions. Drill 3/16" holes thru all roof layers, inserting machine screws as holes are drilled to prevent rack from moving as remaining holes are drilled.
- Install 3/16" self-adhesive foam washers on bottom of rail end caps (see illustration below). Place end caps flush against ends of rails. Hold in place and drill 3/16" hole through all roof layers. If installing outside core area, proceed to Step 10 now.



- From inside truck cap, use 9/32" drill bit to ream out all drilled holes through the inner fiberglass layer only! NOTE: If the cap has a fabric liner glued to inside of roof, place a long nail or screw down through mounting holes to aid in locating drilled holes in liner.
- Assemble propeller Tee nuts and retaining washers with flange side of washer down and toward floor of truck bed and barrel of Tee nut toward roof (See illustration above). Press barrel of Tee nuts into the 9/32" holes until flush with roof.
- Insert #10-24x1" machine screws down through holes and roof at each end of side rail and screw into tee nuts, using minimal downward pressure to prevent forcing tee nuts out of holes. Be sure each machine screw has a neoprene washer, and that the underside of each side rail end cap and rail hole being utilized has a foam washer installed. **Do not overtighten**, as excessive screw torque may damage fiberglass layers or core material and/or force neoprene washers from under screw heads. Use of a liquid thread lock on machine screws is recommended. For end caps, repeat this procedure using #10-24x1 1/4" machine screws. Proceed to Step 11 now.
- Installing outside core area, roof thickness under 1/2", or sheet metal roofs without headliners:** (Two people required for this step, in most instances) Insert #10-24x1" machine screws down through rails. Place 1 1/8" retainer washer against inside of roof, followed by 1/4" Stainless Steel flat washer and 1/4" lock nut (See illustration above). Tighten securely. **Do not overtighten**, as excessive screw torque may damage fiberglass layers or core material and/or force neoprene washers from under screw heads. For end caps, repeat this procedure using #10x24x1 1/4" machine screws.
- Snap black plastic screw covers onto retaining washers (Break away any excessive screw shank flush with top of tee or lock nut if necessary to enable plastic screw cover to snap on to retainer washer).
- Position crossbars in desired location and tighten adjustment knobs securely.

**Operating Instructions:** To adjust crossbar position, rotate adjustment knobs 2 to 3 full turns counter-clockwise. Slide crossbars to desired position and rotate knobs clockwise firmly to securely lock crossbar stanchions in place (periodically check knobs for tightness). To remove crossbars, rotate adjustment knobs 4 to 5 full turns counter clockwise and press inward on knobs while lifting stanchions off rails. Reverse procedure to re-install crossbars.