



Kayak Car Topping 101 - Part II

Sport Racks by Tom Holtey

The second in a series on roof racks and the car topping of boats See also [Part I](#)

In **part one of this series** we covered the very basics of car topping. This section will deal with sport racks, the after market add-on racks that make loading your kayaks, bikes, skis, snow boards, surf boards, canoe, ladder, lumber, or what have you, onto your car roof simple and easy.

Factory installed luggage racks that come with a car, and/or foam block kayak racks, will typically only handle one kayak per car top. If you plan to carry two or more kayaks you will need a utility sport rack.



Essentially a sport rack is a pair of bars that span from side to side, supported by feet that bear the load to the car top. They are secured to the car in some fashion, often with a lock and key. Once the crossbars are in place you can add sport specific accessories to carry your water-sport, snow-sport or bike gear.

Sport racks are well represented by two major brands, Yakima and Thule. These two companies produce more or less the same kind of products, and many of the accessories are cross compatible and can be mounted on luggage racks with adaptors.

Sport racks can be added to almost any vehicle. They are available in outdoor sports shops. Each year, make and model of car has different fitting needs. You will need the help of a rack specialist, and/or consult the roof rack fit guide, or manufacture's interactive web site, to determine the correct components to fit your vehicle.

Sport racks break down into four major categories:

1. Rain Gutter Racks clamp onto the rain gutters common over the doors of older cars. Some modern vehicles still have rain gutters.
2. Door Frame Racks hold onto the doorframes of vehicles that do not have rain gutters. A foot (aka tower) on each end of the crossbar bears the weight of the rack's load onto the car top. Clips, or brackets, shaped to fit that year make and model of car, grab both doorframes, on driver and passenger sides, and are tightened to pull to center, securing the load.
3. Luggage Rack Mounts utilize the existing factory installed rack system on your car roof to support a more robust and useful set of crossbars. These may secure to tracks or slots on the car top, or to side rails that run front to back.



4. A variety of custom mounting options exist to secure sport rack crossbars to a vehicle roof. Usually this requires drilling holes into the roof and screwing base plates or tacks to the car top. This can be tricky work, sometimes best done at a body shop.

A bare bones system will typically be comprised of 2 cross bars, 4 towers/feet and 4 clips, specifically made to fit the door frame of your car.



A two-door sedan may require a short roofline adaptor (SRA) in order to load long objects, such as paddle craft. The SRA propose is to place the rear bar further back on the car roof. A SRA is used with the doorframe style rack system. The front bar is located at the front of the doorframe. The SRA is a pair of bridges between the front and rear bars, above the doorframe. The clips hang off the SRA, grasp the doorframe, and hold the rear bar firmly in place.

Practically speaking, you cannot purchase a rack that will fit more than one car, by year, make and model. Yes, the rain gutter racks are more or less universal, but only for cars with rain gutters. It is possible to get one set of bars towers and an extra set of clips, to swap those clips used for the Ford to the those clips used for the Toyota, but that could be more than you want to do ever other week. It is best to buy a rack for a car, and leave it set up for that car. It is not hard to take off a rack, and when not in use it saves gas to do so, or you can leave the rack on all the time if you like.

Once you have identified the recommended rack for your car, most often sold as separate components, you can proceed with the purchase and installation. It is very important to be 100% sure of the year, make and model of car, and that you can obtain all the needed components to assemble the basic rack system completely. Do not get distracted with the accessories until you have the basic rack lined up.

It may make sense to purchase the accessories with the basic rack. A sport rack is a major purchase, and a bulk discount or package price can make for considerable savings. Also, if you plan to use locking components, you can select the matching locks for the entire system, and keep only one key on your ring (with a spare of course).

On the other hand it may make sense to get into the rack system a little at a time. Obviously the basic rack is a given, but the accessories could be add-on purchases down the road, to make as you need them, can afford them, and when you fully understand what your needs are. A complete rack system with accessories and extras, for a sport, such as kayaking, skiing, or biking, can almost rival your initial investment in the sport gear itself. Once you make the plunge and have purchased a sport rack system the next step is to mount it on your car. The rack will come with instructions, and probably well written instructions with wise-to-heed warnings. If you plan to install on your own plan for ½ or most of a day, get organized and follow the instructions to the letter. Tech help will be standing by, presumably.

If you are lucky the staff at the outdoor store where you made your purchase will install for free (or at a good price). Having this as an option may well be worth paying top dollar for the rack over a big discount. Be careful to make sure an experienced person does the installation. Many kayak shops (probably bike and ski shops too) routinely need to install a rack on a car, just to make the kayak sale, so the customer can take home their prize. A kayak specialty shop, run by kayakers, who own personal kayaks and have sport racks on their own cars, is a good bet for knowledgeable staff. A big box store, with a teenage sales staff, might be a free rack install job to turn down.

When the rack is installed test it. Grab a crossbar and shake it violently. The car should rock with it. There should be no independent movement of the rack. Test both bars.



You may want to pay some special attention to placement of the rack on the car top. In some case you have an option to mount crossbars a bit forward or aft, at your discretion. In some cases the instructions may be very specific and rigid about where exactly the cross bar can be located.

In general, the farther apart the bars are the better. Sometimes the front bar will make noise while driving.



Adjusting the front bar back or forward can sometimes stop that noise. Adding an accessory can also sometimes help. Bikes have very specific needs as to cross bar spacing and you may have to take that into account. Kayaks are strongest at the front and back of the cockpit, particularly at the bulkheads (sit-in), or scuppers (sit-on), if outfitted with such. It can be beneficial to place cross bars at these strong spots. Racks can be dismantled and re-assembled to make these adjustments if necessary. This may leave a tiny scar on the cross bar coating, but nothing to worry about.

The two major players in the roof rack market are Thule and Yakima, both making very comparative products. There is really not that much difference between the two, other than some accessory concepts. Thule has square bars. Accessories mounted to the bars cannot rotate, a good thing for a stable load, but it will prevent laying down a J-Cradle to slip into a parking garage.

Thule's square bars are best suited to cars with a flat and level roofline, when mounted to domed car tops accessories may be at odd angles. Yakima has round bars. This will allow accessories to rotate, making it easy to fold them down, but they can move when you want them to stay still. Yakima's round bars are best for rooflines with a great deal of curvature; this will allow the accessories to secure to the bars in the correct orientation.

In some cases you can use your bare bones sport rack as is, without any fancy accessories. Canoes can be loaded directly on their gunwales, many sit-on-tops can be loaded hull-up, and lumber and ladders can right on the crossbars. However, most of you car topping road warriors will want some accessories to make loading easier and more secure. The next article in this series will deal with those choices.