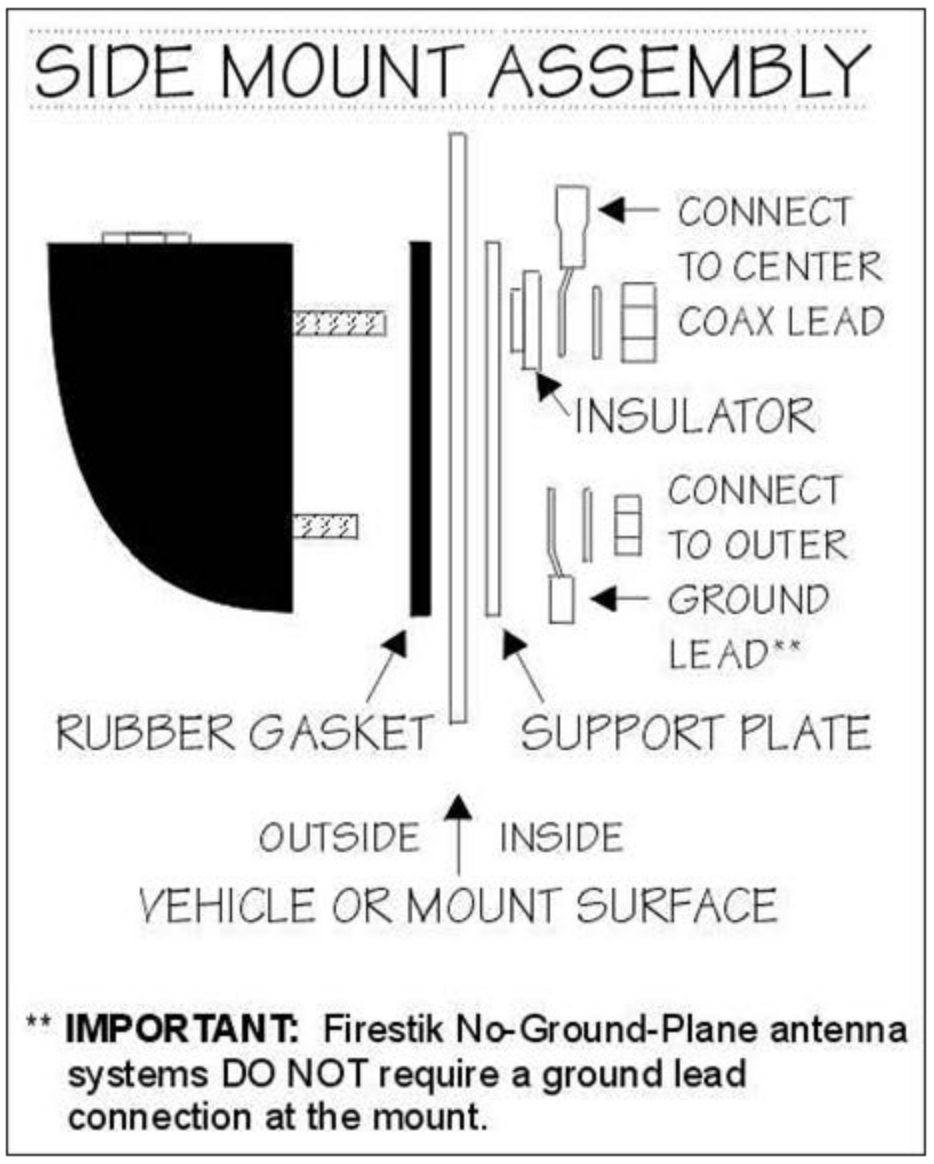
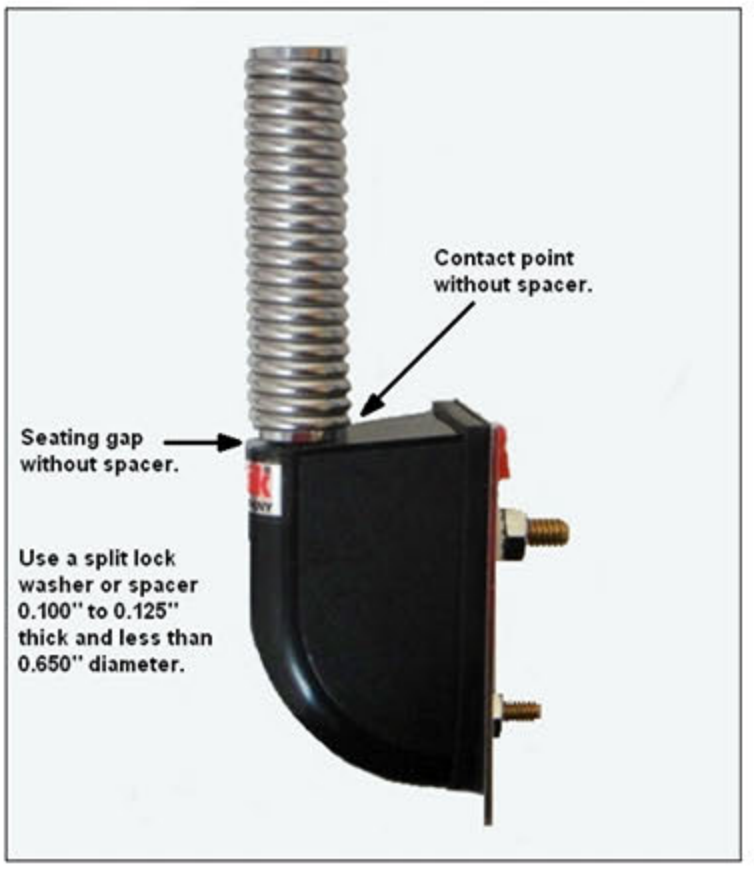
M2 Side Mount and Springs

Compliments of Firestik® Antenna Company Technical Support Team

It is acceptable to use a spring between the antenna and the molded M-2 side mount. Just remember this.

The base diameter of most springs, including all Firestik models, is larger than the cut-away on the top of the M-2. So, if you are going to use a spring use a split lock washer or a spacer (washers) in the 0.100" to 0.125" range. If you do not, the base of the spring will contact the plastic on the M-2 before it fully seats against the brass insert on the top. Under those conditions, the spring could vibrate loose and you could lose the antenna and spring. Also, without the spacer in place, tightening the spring will at least chip the plastic and possibly fracture the mounts housing.





Are You Climbing The Walls?

Over the years, and still today, we hear from RV owners who tell us that the bolts we supply with some of our side mounts are too short to make it from the outside wall to the inside wall. The ones we hear from before the installation are the lucky ones. If you want to span the double panel walls of an RV, there is a good chance that you will be one "unhappy camper" in the months and years to follow.

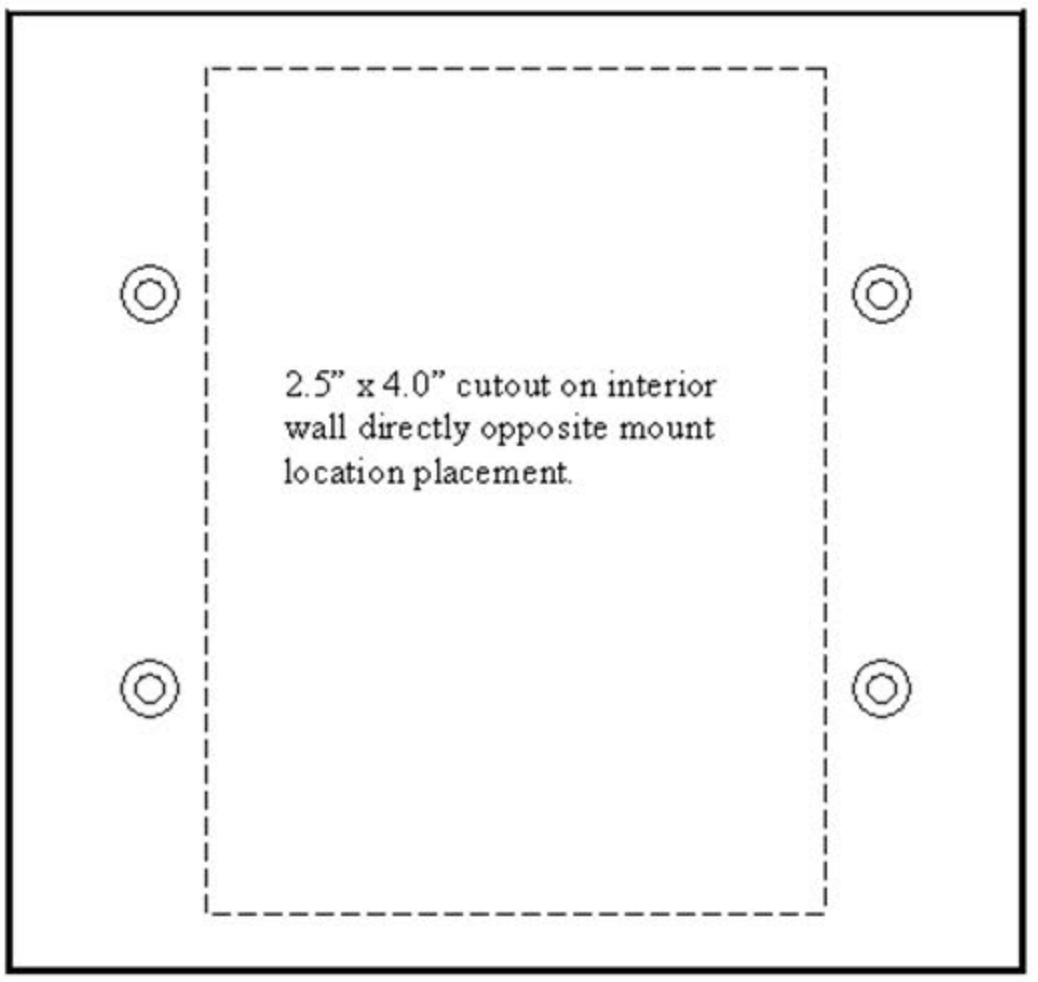
If you span the interior and exterior walls of a composite material RV (fiberglass, etc), when you tighten up the bolts or nuts that hold the mount in place you can almost be guaranteed that the inside and outside wall is going to be distorted. And that isn't the end of the problems. After a short time the material will get "comfortable" with its new position and the tension of the bolts will slack off. The bumps, wind load and vibrations of normal driving will then cause the holes drilled in the material to become elongated. So, you tighten the bolts/nuts even further and the distortion increases. The process repeats itself until you finally crack the outer skin of the vehicle or pull the bolt heads or nuts through the inside wall.

If you have a double panel wall and are considering a side mount you have three options. 1) Find an interior wall support and either affix the mount on it or just off to the side of it. 2) Use plastic PVC tube or equivalent stand-offs that fill the gap between the inner and outer walls. 3) Make an access hole on the inside wall, perhaps inside a cabinet, and bolt the mount directly to the outer skin. Both options 2 & 3 require access to the space between the walls.

Keep in mind that composite materials do not provide the ground plane that standard 2-way radios require. You should not confuse chassis ground with ground plane. Composite (non-metal) vehicles require antennas systems designed for no-ground-plane (NGP) environments. Also, mount your antennas so that 60% or more of their length is above the roof, regardless of what length the antenna is that is being installed. Lastly, never alter the length of an NGP coax assembly. These are tuned devices. If you need additional length to reach the radio, use a common barrel connector and a section of coax (9ft or multiples recommended) with PL-259's on both ends between the radio and the NGP coax.

For your convenience, we have provided two interior wall, antenna mount access hole ideas for your consideration.

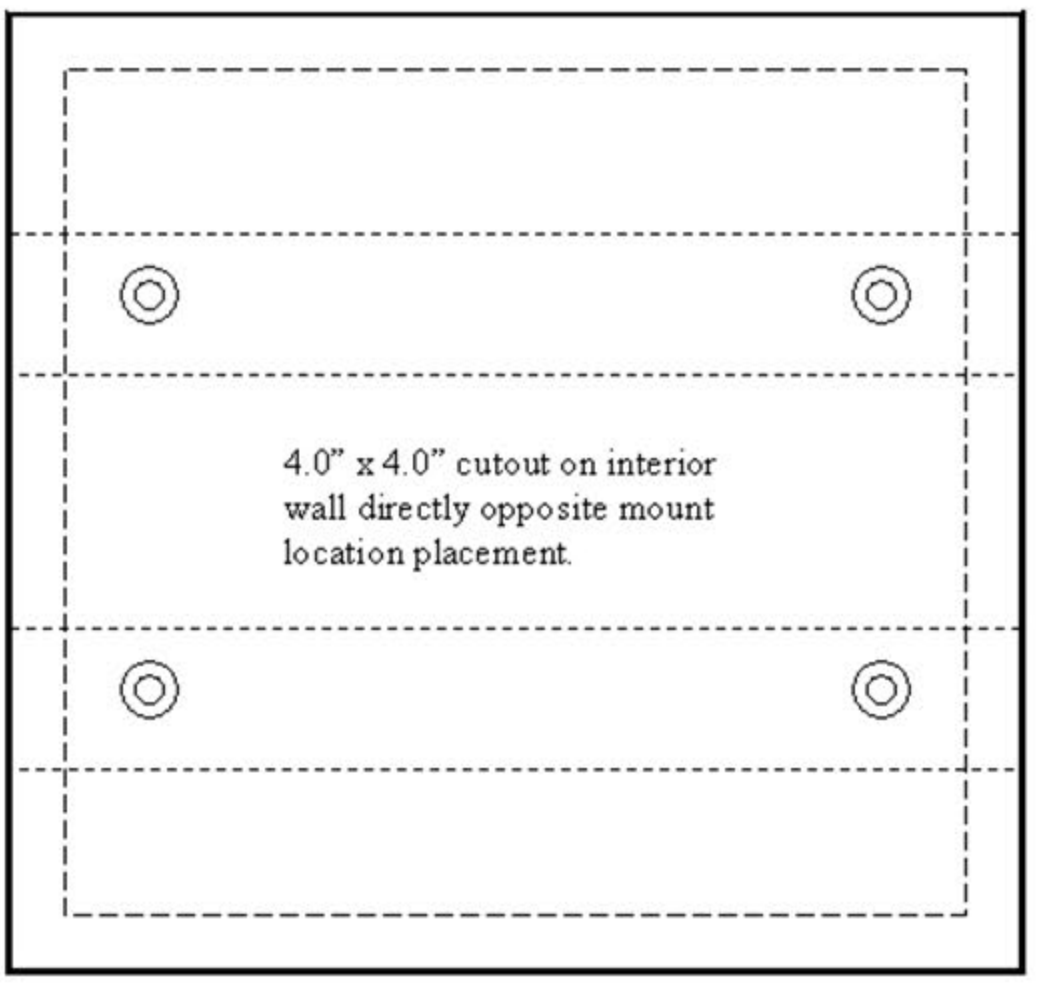
Common 4.5" x 4.5" holeless double gangbox cover.



Leave enough room on sides to install plate mounting screws.

** 1 MORE PAGE FOLLOWS **

Common 4.5" x 4.5" holeless double gangbox cover.



Another option, if you want a larger hole to work with, would be to cut the hole 4" x 4" and use two ½" wide by 4.5" metal strips that the screws would go into or through. The strips would be positioned so that the left and right ends are on the inside of the opening so when tightened, the strips clamp the plate to the wall.