

# 12' Pavilion Owner's Manual (Spoke style)

DRAGONWING  
P. O. Box 13322  
Sacramento, CA 95813-3322

**T**hank you for your selection of the DRAGONWING Round Pavilion. We are sure that your pavilion will weather many years of service, if you care for it properly. In this manual, you will find details on how to assemble and erect it, and how to care for it.

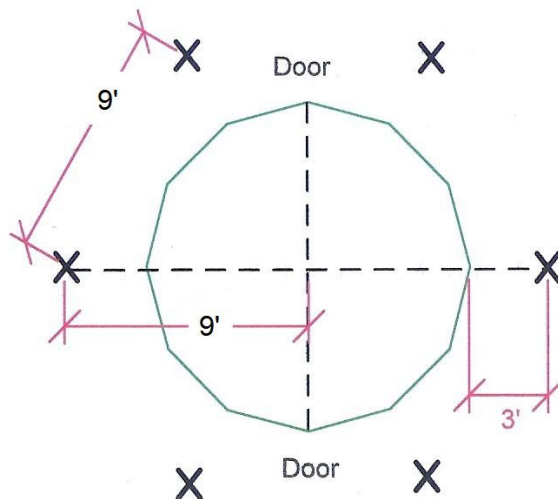
**FINISHING THE POLES**

We have left the finishing of the poles to you, since it reduces your costs and it gives you the opportunity to stain or paint the pieces as you desire. Whatever your preference, it's worth it to buy the very best finishing medium you can afford. Scrimping on the cost here is always false economy, not only because it gets unsightly a lot quicker, but also because a frame unprotected from the elements will warp and deteriorate very quickly. The friendly attendant at your neighborhood hardware store will be happy to advise you on what you need for the conditions you'll face in your part of the world. I usually use a good marine "spar varnish" or a polyurethane varnish on the poles I use for my own tents. You may wish to go for a more "period" effect with linseed or tung oils. Whatever you decide to do, do it now, right away, while the wood is still fresh and new. Remember to sand the poles first, to remove any collected grime and give the finish a good surface to stick to. *Please note* that three of the spoke poles are slightly longer than the rest. You might want to paint those one a different color, or otherwise mark them so that they can be readily distinguished from the others.

**SETTING UP YOUR PAVILION**

Decide where you want to pitch the tent. You want a fairly level, well-drained area cleared of rocks and debris. If possible, orient the tent so that the prevailing wind will be coming from behind. That is, the doorway should be on the downwind side of the tent. This orientation allows the tent to resist the wind most effectively.

Lay your ground cloth on the ground exactly where you want to have the tent set up. One of the points, or corners, of the ground cloth will be where your front door will be. The point directly opposite will be where the back door will be. Neither of these should have a stake in the ground in front of it for the guy ropes, because you don't want to be tripping on it all the time. But the two points adjacent to these doors will have stakes near them, as will the points midway along the side of the tent ... six in all, equidistant to each other, as shown in figure 1. (The stake locations are marked with an **X**).



Find your six long (16") stakes, and your hammer. You will notice that your spokes come in two lengths, one slightly greater than the other. Select one of the three longer spokes. Since it's about six feet long, its midpoint will be at three feet, and that's how far you want the stake to be from the ground cloth. You want to drive this stake into the ground at least a 45° angle to the ground, for maximum leverage and holding power. Move your marking spoke to the next station, and repeat the process. This should give you six stakes spaced evenly around the center of the tent.

If you don't have a fitted ground cloth, you can situate your stakes accurately with a simple tool made of 28 feet of string. Measure an inch or two from one end, and put a mark there. From that mark, measure off nine feet and tie a knot at that point. Measure off another nine feet, and tie a knot there. Measure off another nine feet, and make a mark there ... it should be a few inches from the end of the string. Tie the ends of the string together so that the two marks are in the knot. Now you have a perfect equilateral triangle. To use it, put one knot at the center of the tent. Stretch the string out and put a stake at the next knot. The next stake goes out ten feet from the first one, and ten feet from the center. Proceed around the tent so that all six stakes are located ten feet apart and ten feet from the center. Voila! (Figure 1 shows you geometrically what you're doing.)

Spread out the canopy, right side up (the apex ball should be on the outside, and the canopy plug should be on the inside). Don't forget to remove the bag protecting the ball! You'll notice that as you go around the canopy, you'll see that half the points of the canopy have an eye-bolt with two ropes apiece; these alternate with a carriage bolt with no ropes attached. Rotate the canopy so that one of the rope assemblies is where the door is going to be.

Untangle the ropes and stretch each one out from the canopy ... not directly out, but off at an angle to the right and left. Loosen the slider and slip the steel ring at the end of each rope over a stake, but don't tighten anything yet. What you're doing should look like figure 2, on the right.

Find the center pole. It's in two pieces, so put the pieces together. Slide the hub over the top of the pole (where the socket is) and let it slide down onto the pin set into the top part of the pole. With the top of the pole in hand, crawl under the canopy and locate the plastic plug that the apex ball screws into. That plug goes into the hollow at the top of the pole. Raise the center pole to the vertical position. Don't be afraid that the whole tent will fall over, because the guy ropes on the stakes will keep the tent stable.

As you noted earlier, three of the twelve spokes are longer than the others. These spokes go into holes in the hub that are deeper than the other holes; these are marked by brads next to the holes.. **Put these longer spokes in first!** Then put in the shorter spokes. If you forget and try to put the longest ones in last, you'll find that there will be too much tension on the eave to get that last spoke in.

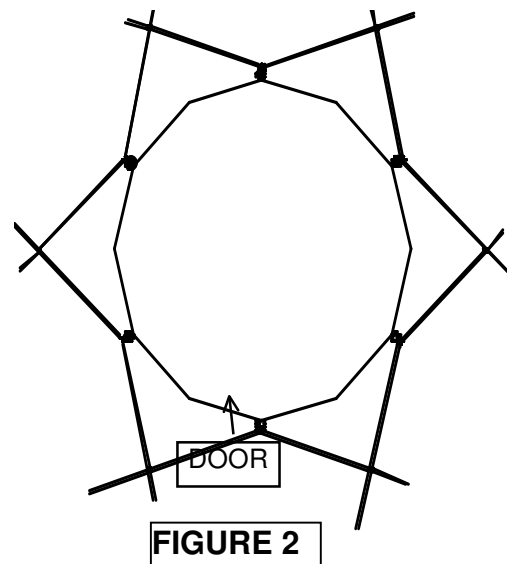
To mount the spokes, slip the threaded end of the rope eye-bolt or carriage bolt (depending on where you are along the canopy) into the drilled hole at either end of the spoke, and then slip the other end of the spoke into its hole in the hub.

Take a break; you're more than halfway there now, and it's time to cool off (or warm up) and hydrate. There's no sense in making an ordeal of this, is there?

### **HANGING THE SIDEWALLS**

You're ready to put up the sidewalls. These are made so that the stake-ring webbing should be on the inside. To help you distinguish inside from outside, all the top and bottom hems are folded inward. And the Dragonwing identification label on one of the sidewalls should be on the inside.

If you have toggles or ties, you'll need to overlap a panel when hanging the second sidewall. Remember to note which side the ties or toggles are on, so you'll hang the second sidewall so that you can tie the ties together. If you mess up, it's no big thing; you'll just have to re-do the overlap so that what was inside is now outside, and vice versa. Proceed counterclockwise inside the tent, hanging the hooks off the D-rings next to the spokes.



If your sidewalls have zippers, the first sidewall starts at the point where the guy lines come down at the door area. Proceed counterclockwise inside the tent, hanging the hooks off the D-rings next to the spokes.. Hang the second sidewall, bearing in mind that there is no overlap.

Now stake down the bottom of the sidewalls with the shorter (12") stakes, remembering that the pavilion is designed to flare slightly outward at the base. For neatness, close the doors of the pavilion before you start staking. Each stake should be one foot further outward from where it would be if the sidewall were hanging straight down. This feature helps keep the pavilion stable in winds, which is why it was so common on period tents. The stakes should also be angled somewhat outward, so the tent sides won't ride up on the stakes and create a gap between fabric and ground.

Once the sidewall stakes are in, see if lifting up on the center pole makes the sidewalls look less wrinkled and saggy. If it does, the center pole is probably in a depression, so you'll have to shim it up. I usually carry a few pieces of plywood three or four inches square to do this. (The shim also keeps the center pole from sinking into soft ground).

Re-adjust the tent ropes so as to minimize wrinkles in the canopy and sidewalls, and tighten them. You'll probably have to re-adjust and tighten them periodically, particularly in changes of temperature or humidity, or in winds. If it's really windy and the ropes insist on loosening, you can wrap the rope and sliders together with string or tape.

Now your pavilion is finished! Have a party in it. Invite your friends.

Taking down the pavilion is the reverse of putting it up, except for these points:

When you take down the pavilion, be very careful not to harm the fabric. Be conscious of where the poke-y bits are.

To loosen the stakes before pulling them out, rotate them a quarter-turn, then back an eighth of a turn.

To keep the guy ropes from tangling together, loop them into a big coil (or fold them into thirds) and tie the coil with a loose overhand knot.

### **HIGH-WIND CAMPING**

The sixteen-inch stakes we provide for your tent ropes should suffice in all but the windiest weather, or in all but the loosest soil. But if you have an abundance of either condition, or a combination of the two, here are some things you can do to keep yourself connected to terra firma:

1. Use longer stakes. Many people have pieces of re-bar, 18" or more. My usual preference is to drive a piece of 1" x 2" furring lumber (at least a foot long or so) into the ground, with the wide side facing the tent, and then drive in the tent stake immediately behind it (that is, against the side of the slat that isn't facing the tent), so that the tent ropes pull the stake tight against the slat. This works because it's not so much the depth of the stake that counts, but the area of stake that presents itself to the dirt. The slat effectively triples the size of the stake.
2. Use more stakes. Tie additional lengths of rope to each of the rope pins and run them out to their own stakes. Don't get them too close to the other stakes.
3. Increase your footprint. Extend the rope beyond the radius determined by the guide knots on the guy ropes. Enough rope has been provided to let you bring the stakes out over eight feet away from the ring if necessary. The only trouble with this method is that it creates more of a tripping hazard, so make sure the ropes are well flagged.
4. Use wind lines. These are special ropes that are attached to the center-pole ball before the center pole is raised. They extend out from the tent and then are staked down as far away from the tent as practicable. The idea is to stabilize the top of the center pole in gale-wind conditions and thereby prevent sway. Obviously, this method isn't something you can easily employ once the tent is erected, particularly if you have to partially dismantle the tent in a freshening storm. So you need to keep track of the weather forecasts, and have the ropes in place when you set up if it

looks like it's going to be a hurricane. On the other hand, Dragonwing pavilions have been through most of the horror-story windstorms you've heard about (the famous "Estrella hurricane" of a few years back, the Twenty Five Year Celebration, the Thirty Year Celebration, and innumerable foul-weather Pennsics and tourneys) without needing wind lines at all. I wouldn't worry much about wind lines, myself.

### **ODDS AND ENDS**

Some SCA kingdom tourney laws require, and we wholeheartedly recommend, that you attach yellow or white flags to the guy ropes to keep your comrades from tripping on them or colliding with them in the dark.

Period pavilion floors can be made of torn-up rugs available at little cost from thrift stores. If you use a slippery plastic ground-cloth underneath them, secure the rugs well against slipping by driving long nails through the rug and ground-cloth into the ground. (If you use cheap, replaceable plastic sheeting, you won't feel so bad about it.)

If you're going to put an ornament or banner over the canopy of your pavilion, don't make it very large or heavy. Higher winds can put a lot of stress on the ornament, and your embellishment may take flight and become an airborne missile.

### **CARING FOR YOUR PAVILION**

The first rule is: make sure that the fabric parts are free from being abraded by anything, particularly when being transported. Keep the stakes in their own canvas bag when you're not using them.

The second rule is: don't store the pavilion wet. Although the fabric parts aren't particularly prone to mildew, the dirt that collect on them is, and will eventually cause discoloration and loss of water- and fire-resistance. Find a dry, large area to air the pavilion if you bring it home wet, and make sure it's dry before you put it into storage. Also, remember that the ropes are made of a natural fiber that may take longer to dry than the fabric, and which will certainly rot if given half a chance. If you must store the pavilion before the ropes are dry, take them off the canopy and dry them separately.

The third rule is: don't clean the pavilion with anything harsher than warm water and a mild soap or detergent. My rule of thumb is that if it's mild enough for your hands to be in (like dish soap or shampoo), it's mild enough for the pavilion. Using anything stronger may damage the water-proofing and fire-retardant properties of the fabric. Also, be sure to rinse the fabric well. And then rinse it again. (This is because sunlight and soap combined will weaken the fabric far worse than either would by itself.)

We wish you many years of happiness in your Dragonwing pavilion. We maintain a photo album of our tents, and would be honored to include yours if you would be so kind as to send us a photograph of your tent as you have it set up for your activities. We are also keen to hear about any customizing of the design which you have performed. Again, happy tourneying!

If you have any questions or comments, or if you would like to know more about our products, feel free to call us at (916) 922-5501 or write us at **Dragonwing, P. O. Box 13322, Sacramento CA 95813-3322**. If we're not in, we'll have a voice-mail/fax machine ready to take your message. Or visit our web site at <http://midtown.net/dragonwing/> for more information on how to use and maintain your tent.