

# WINDMILL STAND COMPONENTS



### SUGGESTIONS

- Separate all stand components by item numbers before assembly.
- While assembling stand, flip each component as needed to provide the best appearance.
- Anchoring the windmill is critical, especially in areas of strong wind. Ground stakes should be set in concrete. You can also drill an auger into ground below center of windmill and attach to windmill using a steel cable.
- Use a waterproofing sealer to preserve wood on a yearly basis. A cedar or redwood stain can also be used as needed.

## Hardware included in each SMALL Backyard Windmill includes:

### Windmill Tower – Labeled Package A

- 4 Angle Iron Leg Connectors Galvanized Steel
- 6 Long Wood Screws to attach Item 10 and Item 8
- 124 Medium length Wood Screws for tower and leg connectors

### Windmill Head Assembly – Labeled Package B

- Large Washer to fit behind the nylock nut
- Nylock Nut
- Bolts, 2 Nuts and 4 Washers to attach tailfin to tail arm bracket
- Bolts, 4 Washers and 4 Nuts to attach bearing assembly if not pre-attached.

### Mounting Brackets on legs – Labeled Package C

- 4 Mounting Brackets
- 4 Bolts, 4 Nuts, 8 Washers
- · 8 Short wood screws to attach the mounting brackets

### TOOLS NEEDED

- Tape Measure
- Pencil
- Safety Glasses
- Power Drill with Phillips Bit (electric, cordless, air, etc..)
- Pliers
- Hammer
- Screwdriver



### **STEP 1:** Stand Assembly

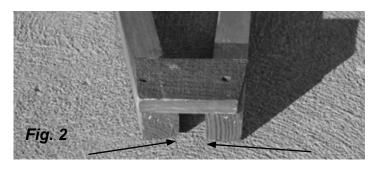
• Refer to Page 1 during assembly. Attach two of Item 1 together using the angle iron and six screws from Bag A. Repeat this step to produce four legs.



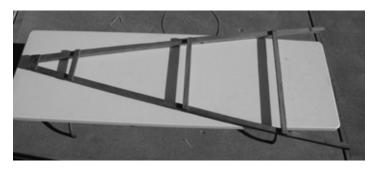
### STEP 2:

• Position the legs with the angle iron braces toward the inside and touching the ground. Measuring from the bottom of the legs, mark the outer edge of both legs at the following measurements: 18", 45 ¼" and 79 1/8" (see Page 1). Using eight screws (two per board) from Bag A, attach an Item 2 even with the top and flush with the sides of the legs (NOTE: Try to get the angles of the top section equal if possible). See figure 2.





• Attach an Item 3 above the 18" mark, an Item 4 above the 45 1/4" mark and an Item 5 above the 79 1/8" mark.



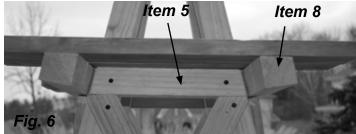
### STEP 3:

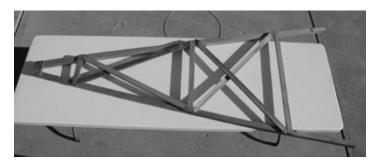
• Using eight screws from Bag A, attach two Item 6 boards in the lower section of the legs and two Item 5 boards in the upper section. The top cross piece will require some force to position and attach correctly. Repeat steps 2 and 3 to produce two sets of legs.



### STEP 5:

• Using four screws (two per board) from Bag A, attach an Item 3 above the 18" mark and flush with the outside of the leg and an Item 4 above the 45 ¼" mark and flush with the outside of the leg. Using two of the long screws from Bag A, center and attach an Item 8 in the same placement of Item 5 from Step 2. See figure 6.





### STEP 4:

• Lift both leg braces and position as shown so you can build the 3rd side of the tower. Using two screws from Bag A, attach an Item 2 even with the top and flush with the sides of the legs.



### STEP 6:

• Repeat Step 3. Roll the stand over and repeat Steps 3 through 5 to complete the final side.



### STEP 7:

• Prop the upper portion of the stand on a stool or saw horse. Using eight screws (two per board) from Bag A, center and attach four Item 9 components



### STEP 8:

• Send <sup>3</sup>/<sub>4</sub>" round rod through top opening. Using two of the longer screws from Bag A, center and attach the Item 10 on top of the Item 8 pieces.



### STEP 9:

• Using four screws from Bag A, center and attach the 4" x 4" metal plate to the top of the legs. Using four screws from Bag A, attach the ¾" rod to Item 10. This completes the stand construction

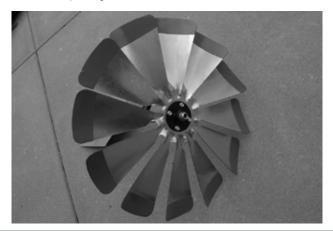


### STEP 10:

• USE CAUTION WHEN HANDLING AND ASSEMBLING THE WINDMILL HEAD. EDGES CAN BE SHARP.

### Windmill Head Assembly

- Bolt bearing onto FRONT of windmill head by inserting bolts through the bearing front (welds in front) and using lock washers and nuts on the back of the head. Tighten securely.
- Slide windmill shaft thru the windmill head and secure with 1 large washer and nylock nut. Tighten nylock nut, then loosen slightly until head spins freely. Note: This model does not require grease.

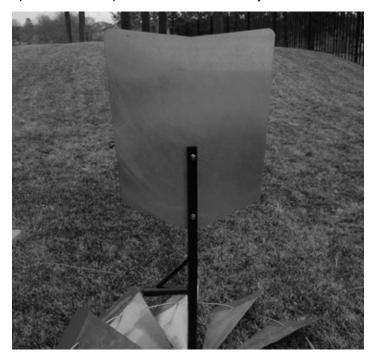


Outdoor Water Solutions, Inc. Assembly Instructions 3/14 (Mar. 2014)



### STEP 11:

• Attach windmill tailfin by sliding it into slit of tailfin bracket. Slide bolts from Bag B through one side of bracket, attach washers and nuts from Bag B, then tighten with wrench or pliers. This completes the head assembly.



### STEP 12:

• Attach brackets (one per leg) using eight screws from Bag C at approximately 4" up from the bottom. The rebar anchors will go into each one of these and be secured with the four bolts, washers and nuts.



### STEP 13:

• Move windmill tower to a desired location. Make sure it is level. Hammer rebar into the ground or set in a concrete footing for maximum support.

NOTE: Extra anchoring is strongly recommended by using concrete footings for each of the four legs or by using a 30-36" screw-in anchor in the middle of the tower and securing all four corners with plastic coated aircraft cable and clamps.

This completes the windmill assembly.

**CONGRATULATIONS!** 

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