



# Assembly Instructions



# Packing List

---

## **You should have:**

- The six-foot post black powder coated or galvanized finish, or the 2 section eight-foot post black powder coated or galvanized finish, depending on your order
- A minimum of 3 heavy duty sign brackets up to a max of 8 brackets (color coded and stowed inside your post), depending on your order
- 5/16 X 1-1/2 inch threaded bolts (flat Phillips head) for mounting brackets (one for each bracket)
- A minimum of 3 arrows (color coded) up to a max of 8 arrows, depending on your order
- one aluminum dome cap for post - powder coated black or galvanized finish
- one “in-ground sleeve” or one “cup bolting flange” for installation, depending on your order
- Set of printed assembly instructions

## **ADDITIONAL OPTIONS IF ORDERED**

- one black cast aluminum decorative base
- one finial - optional ball, acorn or pineapple (substituted for standard dome cap)

## **Design and Assembly**

Your MetroVane™ was designed from the start for easy assembly and to remove any guesswork in getting the arrows aimed correctly. We've accomplished this simply by embedding relative compass bearings into the post itself. Just follow our directions, identify the North 0° compass point from your property, rotate and fix the post's North Pole Indicator to that heading.

# Surface Mount Method Anchoring for the 6-foot MetroVane™

---

*(Requires the 6 foot post and cup bolting flange)*

**Before proceeding, you must anchor the cup bolting flange into a cement slab or sturdy wooden deck.**

If you are a do-it-yourselfer and have the right tools (including a carpenter's level) we direct you to the experts at Quikrete® Cement and Anchoring Products – [www.quikrete.com](http://www.quikrete.com). Go to their website and check out two “How To” videos, with step by step text instructions for permanently installing your 6 foot post above ground.

Video title :

**“Anchoring Bolts, Railings & Rebar in Concrete with Anchoring Epoxy”**

Video title :

**“Anchoring Handrails and Bolts in Concrete”**

If you are not a do-it-yourselfer, consider hiring a handyman or landscaping contractor to anchor the cup bolting flange and post into a cement slab, or sturdy wooden deck.

***\*When working with cement-based products, always wear eye protection and waterproof gloves.***

# Assembly of the 6-foot Surface Mount MetroVane™

---

*Easy to assemble with these hand tools: approximate total time: 30-35 minutes*

- Adjustable Hex wrench or socket set
- Medium/Large Phillips screwdriver
- Allen wrench – 4mm or 5/32
- Magnetic compass or smart phone with compass app

After anchor bolting the cup bolting flange into the cement or into wood decking, it's time to assemble your MetroVane™.

**\*PLEASE NOTE:** Bold face and underlined type is for decorative base instructions only. Customers who did not order the optional decorative base may disregard the bold underlined type.

*(Set-up and calibration of post) approx. time: 10 min.*

1. Remove the brackets stowed inside the post and set the brackets aside.



- 2. Slip the decorative base onto the anchored cup bolting flange. The base will sit on top of the flange's four anchoring bolts (not included).**



3. Take the post bottom (the end without threaded holes) **and insert into decorative base top** and down into the cup bolting flange.



- 4. Set the decorative base back down onto the flange bolts.**

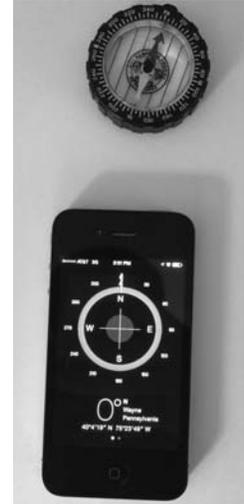
# Assembly of the 6-foot Surface Mount MetroVane™

*continued*

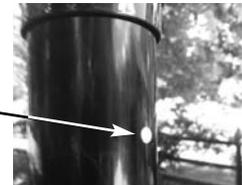
---

5. Find the due North heading from your property. Use a simple (Cub Scout like) magnetic compass for a \*Magnetic North Pole heading. Or, for a \*True North Pole heading, use the compass app that comes standard with many smart phones or find an app to download. (App has GPS capability for greater accuracy).

**\*Note:** Photo shows there is a slight variance between True North (as determined by the earth's axis of rotation) and the Magnetic North (as determined by the earth's magnetic field).



6. Rotate the post until the plastic North Pole Indicator (at the top end of the post) is aimed due North. The plastic indicator is a flush mounted 1/4" diameter round plug.



7. Once the North Pole Indicator is aimed North, lift the decorative base off the flange bolts enough to access and tighten the two set bolts on the cup bolting flange into and against the post, with an adjustable or socket wrench. This will securely set the post into the anchored cup bolting flange, and permanently fix the North Pole Indicator to a due North heading.



## **(Mounting/securing decorative base)**

*approx. time: 2 min.*

- 8. Lower the decorative base back onto to flange bolts. The decorative base has 2 set screws near its top. With a 4mm or a 5/32 Allen wrench, tighten each set screw from opposite sides against the post.**



# Assembly of the 6-foot Surface Mount MetroVane™

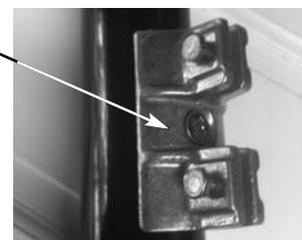
*continued*

---

## **(Mounting the brackets, post cap/finial)**

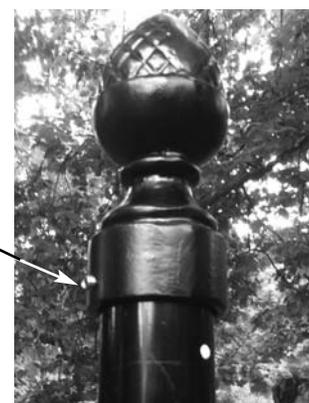
*approx. time: 7-10 min. depending on number of brackets*

9. Attach the brackets to the threaded holes on the post as follows. Note, each hole on the post is color coded (red, blue, green, etc.) with a colored dot sticker. Likewise, each bracket is color coded (red, blue, green, etc.) with a similar colored dot sticker. Attach the red coded bracket to the red coded hole, blue to blue, green to green, etc. by inserting a 5/16 x 1-1/2 inch Phillips head bolt (included) through the center hole of the bracket and thread clockwise into the color matched hole on the post. Thread until snug and tighten with a medium size Phillips screwdriver.



10. Continue doing the same for the remaining brackets, coloring matching bracket-to-hole and secure each of the brackets as before.

11. Insert the dome cap into the top opening of the post and tap it lightly to secure it. Or, if you purchased an optional decorative finial, place it over the post top and with a 4mm or 5/32 Allen wrench, tighten the finial's set screws against the post.



# Assembly of the 6-foot Surface Mount MetroVane™

*continued*

---

## **(Attaching the arrows)**

*approx. time: 7-10 min. depending on number of arrows*

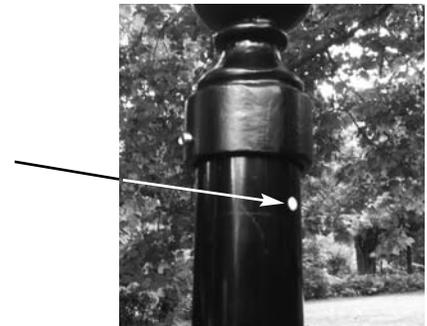
- Each arrow is also color coded (red, blue, green, etc.) with a colored dot sticker. Attach the red coded arrow to red coded bracket, blue to blue, green to green, etc. Slip the arrow's color coded end into the vertical slot of the bracket with the same color code. Center the arrow top and bottom into the bracket. With the adjustable or socket wrench, secure (firmly) the two bracket bolts against the arrow. Repeat this step for each arrow and its corresponding color matched bracket.



## **(Final checking of calibration)**

*to finish*

- As long as the plastic North Pole Indicator, near the top of the post, is aimed North and you have matched color to color properly between arrows, brackets, and pre-drilled holes, your MetroVane™ will be directionally calibrated and geographically correct.



# In-ground Method For Burying MetroVane™

---

*(Requires the longer 8 foot post and the 2 foot burial sleeve)*

## **Before proceeding, you must set the 2' burial sleeve into a dug hole.**

The 8 foot post comes pre-cut into two – 4 ft. halves. The post bottom half has one end that is swaged or narrowed to enable it be rejoined with the post top half later in the Assembly phase. The top half is the section with several threaded holes.

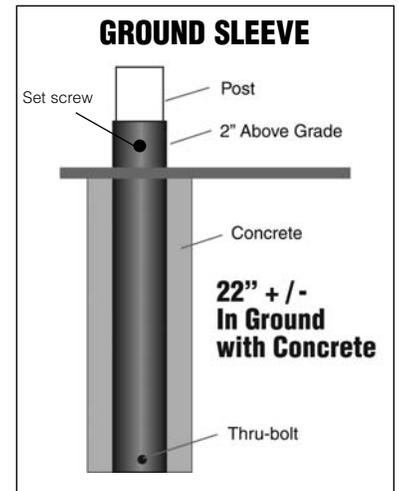
The 2-ft. sleeve is set in cement, leaving two inches above ground. It has a thru-hole at its bottom to accommodate an anti-spin bolt, and a set screw at its top.

If you are a do-it-yourselfer and have the right tools (including a carpenter's level) we direct you to the experts at Quikrete® Cement and Anchoring Products – [www.quikrete.com](http://www.quikrete.com) for the pouring of the cement instructions.

**Go to their website and check out the “How To” video, “Setting Posts without Mixing”, or refer to their step by step text instructions.**

If you are not a do-it-yourselfer, consider hiring a handyman or landscaping contractor to properly set your ground sleeve and post bottom in-ground.

**\*Before digging, always check with your local utilities to help avoid cutting any electrical cables, gas, water or sewer lines. When working with cement-based products, always wear eye protection and waterproof gloves.**



# Assembly of In-Ground MetroVane™

---

Easy to assemble with these hand tools: approximate total time: 25-35 minutes

- Adjustable Hex wrench or socket set
- Medium/Large Phillips screwdriver
- Allen wrench – 4mm or 5/32
- Mallet or household hammer
- Magnetic compass or smart phone with compass app

Having cement anchored the ground sleeve (with about 2 inches exposed above ground) and allowing about 24 hours for the cement to properly cure, it's time to assemble you MetroVane™.

**\*PLEASE NOTE:** Bold face and underlined type is for decorative base instructions only. Customers who did not order the optional decorative base may disregard the bold underlined type.

## **(Securing the Post Bottom half)**

*approx. time: 2 min.*

1. Remove the brackets stowed inside the post bottom half (with swaged end) and set the brackets aside. Insert the post bottom half into the anchored sleeve. Make sure it's swaged end is aimed skyward.
2. The anchored in-ground sleeve has a set screw. Secure the post bottom half by tightening the sleeve's set screw against the post, using a 4mm or 5/32 Allen wrench.



# Assembly of In-Ground MetroVane™

*continued*

---

## **(Mounting/securing decorative base)**

*approx. time: 10 min.*

**3. Slip the decorative base over the post bottom half and down to rest on ground level.**

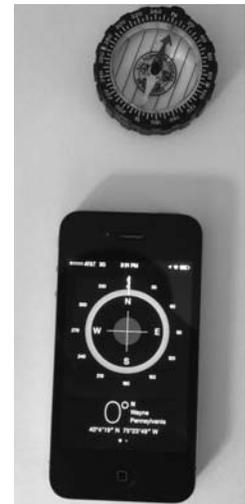
**4. The decorative base has 2 set screws near its top. With a 4mm or a 5/32 Allen wrench, tighten each set screw from opposite sides against the post bottom. This will fix position the decorative base against the post bottom.**



## **(Set-up and calibration of post)**

*approx. time: 6 min.*

5. The 4-foot post top half is the section with drilled holes. Take the end opposite the holes and place it onto the swaged (narrow) end of the partially buried post bottom half.
6. Find the due North heading from your property. Use a simple (Cub Scout like) magnetic compass for a \*Magnetic North Pole heading. Or, for a \*True North Pole heading, use the compass app that comes standard with many smart phones or find an app to download. (App has GPS capability for greater accuracy).



**\*Note:** Photo shows there is a slight variance between True North (as determined by the earth's axis of rotation) and the Magnetic North (as determined by the earth's magnetic field).

# Assembly of In-Ground MetroVane™

*continued*

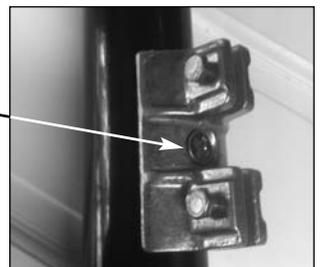
---

7. Rotate the post top half until the plastic North Pole Indicator at the top is aimed due North. The plastic indicator is a flush mounted 1/4" diameter round plug. With the North Pole Indicator aimed North, seat the post top half onto the swaged end of the post bottom half by lightly tapping down on the post top with a mallet or hammer - being careful not to damage the post top. This should prevent the top half from twisting and thus fix the plastic North Pole Indicator into a permanent North compass point.

## **(Mounting the brackets and post cap/finial)**

*approx. time: 7-10 min. depending on number of brackets*

8. Attach the brackets to the threaded holes on the post as follows. Each hole on the post is color coded (red, blue, green, etc.) with a colored dot sticker. Likewise, each bracket is color coded (red, blue, green, etc.) with a similar colored dot sticker. Match the red coded bracket to the red coded hole, blue to blue, green to green, etc. and insert a 5/16 X1-1/2 inch Phillips bolt (included) through the center hole of the bracket and thread clockwise into the color matched hole on the post. Thread until snug and tighten with a medium size Phillips screwdriver.



9. Now do the same for the remaining brackets, coloring matching bracket-to-hole and secure each of the brackets as before.

# Assembly of In-Ground MetroVane™

*continued*

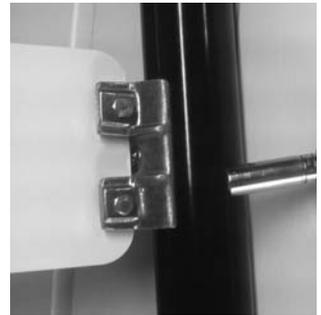
---

10. Insert the dome cap into the top opening of the post and tap it lightly to secure it. Or, if you purchased an optional decorative finial, place it on the post and with a 4mm or 5/32 Allen wrench, tighten the finial's set screws against the post.

## **(Attaching the arrows)**

*approx. time: 7-10 min. depending on number of arrows*

11. Each arrow is also color coded (red, blue, green, etc.) with a colored dot sticker. Match the red coded arrow to red coded bracket, blue to blue, green to green, etc. Slip the arrow's color coded end into the vertical slot of the bracket with the same color code. Center the arrow top and bottom into the bracket. With the adjustable or socket wrench, secure (firmly) the two bracket bolts against the arrow. Repeat this step for each arrow and its corresponding color matched bracket.



## **(Final checking of calibration)**

*to finish*

12. As long as the plastic North Pole Indicator near the top of the post is aimed North and you have matched color to color properly between arrows, brackets, and pre-drilled holes, your MetroVane™ will be directionally calibrated and geographically correct.

