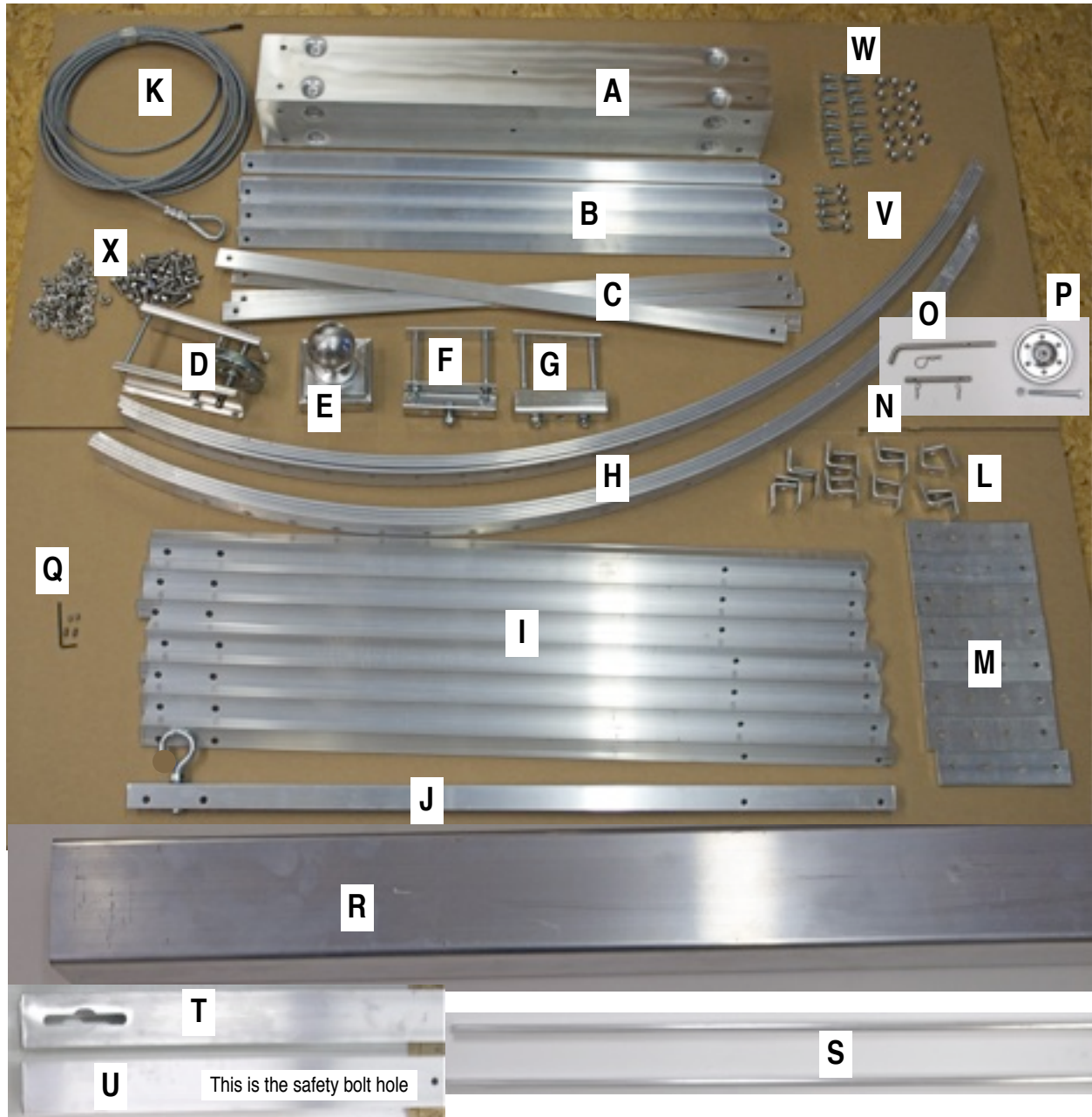


Gemini Gourd Rack



Hub Box

- A) Hub
- B) 4 mitered angle arms
- C) 4 Flat bars with holes at each end
- D) 3" Pulley Guide
- E) Ball Top
- F) Winch Bracket 3 bolt
- G) Winch Bracket 4bolt
- H) 8 ring sections
- I) 7 Aluminum angle arms,
- J) aluminum angle arm with eyebolt installed
- K) 33, of ' 7 x 19 galvanized cable

Hardware Bag:

- L) 16 small "L" shaped brackets

- M) 8 connector plates
- N) Stop pin with hitch pin
- O) Safety bolt with hitch pin
- P) 4" pulley with bolt and lock nut
- Q) Allen wrench with 2, 10-24 x 1/4 & 2, 10-24 x 3/8" set screws
- V) 4, 1/4-20 x 3/4 flange head bolt w/ 4 stainless nuts
- W) 16, 5-16-18 x 3/4 grade 5 bolt with stainless nuts
- X) 48 1/4-20 x 3/4" stainless bolts with nuts

Pole Box:

- R) Aluminum ground stake
- S) Top perch rods
- T) Top of Pole (has slot on one end and splice at opposite end)
- U) Bottom of Pole (has a safety bolt hole 6' from ground up)

Gemini Gourd Rack

The installation of a ground stake is as vital as the foundation of your home. Both need to be done correctly in order to support the housing.

Step 1) Installing the Ground Stake (R). Using a post hole digger dig a hole with a minimum depth of 32-36" by 12" in diameter. *Poor soil conditions may warrant a larger hole and more concrete.*



Step 2) Measure and mark your ground stake at 24" from the top down. This will help keep your ground stake at the proper installed above ground height. Note, place the end with the stop bolted on into the ground.

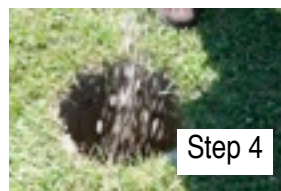


Step 3) You will need at least 5 bags of Ready to Use Concrete Mix, 80 pounds each.

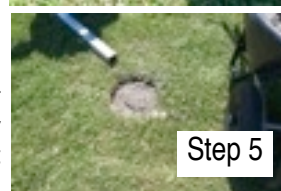


Step 4) Empty contents of the Ready Mix into an old wheel barrow. *Mix and handle the concrete according to the directions on the bag.*

Step 5) Place about 4 inches of gravel into the hole.



Step 6) Fill your newly dug hole with concrete, right up to the top of your hole.



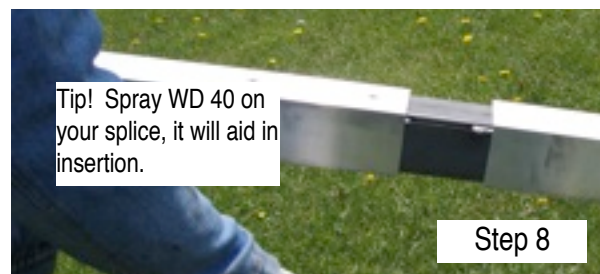
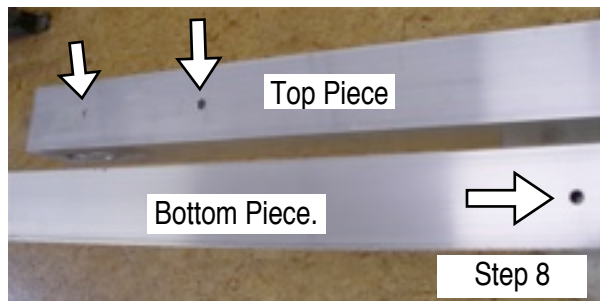
Step 7) Holding your ground stake vertically over the cement insert your aluminum ground stake into the concrete by pushing downward and pulling upward in a firm and steady motion. Stop inserting the stake when your ground stake's 24 inch mark is level with the cement. Did you remember to place the end with the removable stop piece into the cement? Next fill the hollow tube with your left over cement. Compact the cement by using a piece of rebar inside the tube and bring it up and down, compacting the cement. Wipe off any cement from the exterior of the stake. Finish by sloping the concrete at the base of the stake. Check for level on two sides of the stake. Let your cement harden for at least 2 days before you continue with the installation.



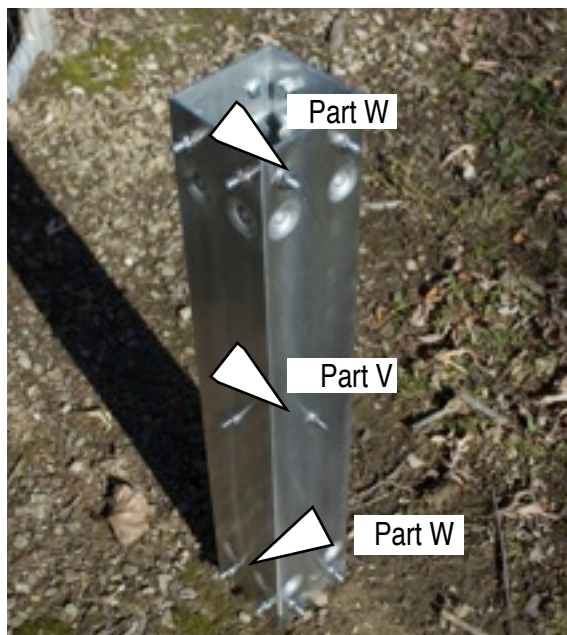
Step 8) Assemble the pole. Take your bottom section (V) and lay over an upturned 5 gallon bucket or similar object. Lay the top pole piece (T) next to it. Rotate the pole till you see 1 hole facing upward on the bottom piece; 6 feet up from the the bottom of the pole, and 2 holes facing upward on the top piece. Insert the top piece into the bottom piece keeping the holes aligned. Lay pole back down on bucket, holes facing up.

Step 9) You need to insert all the bolts into the top, bottom and middle of hub. You will need your (16) 5/16 x 3/4" bolts and 16 stainless steel whiz nuts (W). Insert the bolt from the inside of the hub and thread the whiz nut on. Do not tighten. Do this to all 16 of the holes. Then using the 4, 1/4-20 x 3/4 hex flange bolt and 4 stain-

Gemini Gourd Rack



less whiz nuts (V) Insert the bolt by inserting arm into the aluminum hub and push the bolt thru the hole in the center of the hub, one bolt for each of the 4 sides of the hub, and thread the whiz nut on so your bolt wont fall off. Do not tighten the nuts.



Step 10) Attaching the angle arm that has the eyebolt assembled on it (J). Take your hub and remove one set of nuts from the bolts you placed

at the top and bottom of hub. Note, it does not matter which set of bolts you choose to start at.

Step 11) Align the holes on the angle arm to the bolts, your eyebolt is facing upward and in the center of the 2 bolts. Replace the two nuts onto the bolts and lightly tighten. Using your small speed square make sure your angle is square to the hub and then tighten the nuts. It is best to tighten the bolt head.



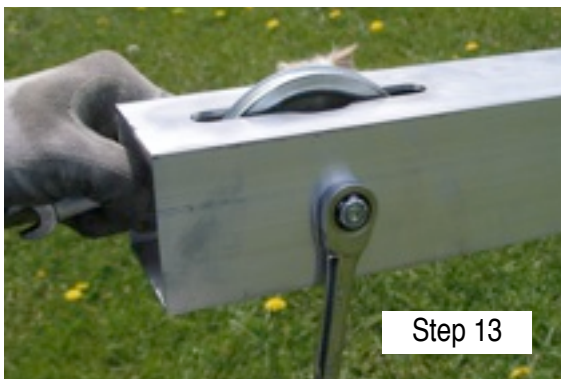
Step 12) You will need to slide the hub with the one angle attached onto the pole. Rotate the pole till you have the side up that has the pulley slot facing you., then slide the hub, arm facing you onto the pole.

Step 13) You will need your 4" pulley, bolt and lock nut (P). Insert the pulley into the slot and

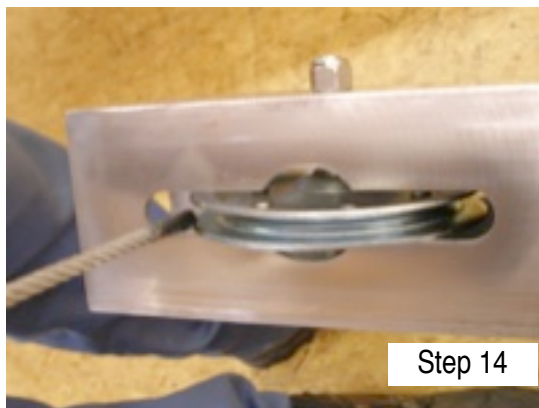
Gemini Gourd Rack



hold it there while you take the bolt and insert it the the hole on the pole, thru pulley and out the opposite hole on the opposite side of the pole. Place lock nut and tighten using 2, 9/16" wrenches (one to hold the bolt, the other to tighten)



Step 14) Slide your hub a few feet down the pole. get your cable. Undo any wrapping on the cable and straighten the cable out by laying it on the ground at walking it the 33 feet remove any kinks in the cable. Place the rounded end of the cable which has a thimble installed onto the open end of the eye bolt. Get the other end of cable (plain) and slip the cable above the pulley, still inside the slot. Flip the pole over. Take this plain end and slide it down the pole and in between the glide buttons of the hub. The cable **MUST** be between the glide buttons of the hub and the pole. Let the cable hang.



Step 15) Inset the stop pin (N). Remove 1 of the hitch pins from the pre assembled stop pin, insert into the hole below the pulley, place other hitch pin in.

Step 16) Ball top (E) and top perch rods (S). Retrieve your (2) 10-24 x 1/4" set screws (Q) and (2) 10-24 x 3/8" set screws (Q) and allen wrench. Use the longer set screws for the top perch rods.

Step 17) Insert the longer set set screws into the drilled and tapped hole. Insert the lower top perch rod (S) first into the ball top. Find the center at 36" and tighten set screw. Repeat for the upper top perch

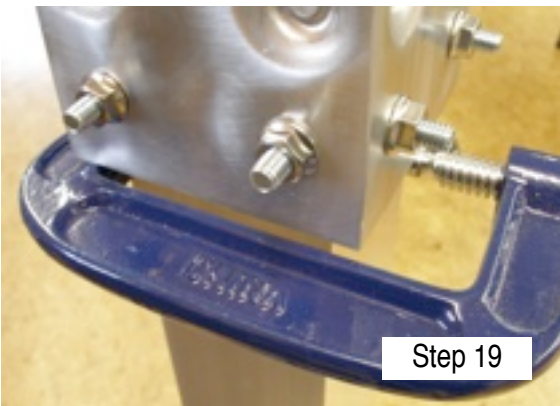
Step 18) Place the ball cap on the top of your pole. You may need to use a rubber mallet to gently tap the ball top so that it is fully seated onto the top of the pole. Tighten the 2 set screws using the provided allen wrench.



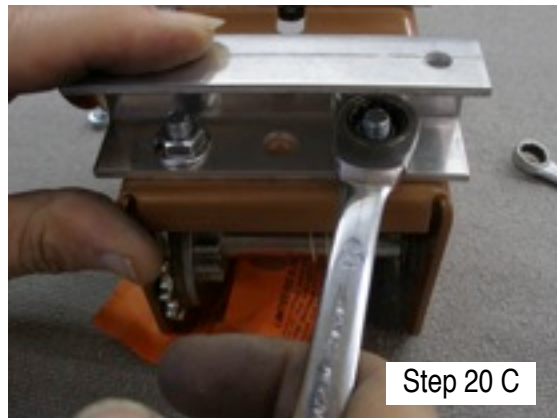
Step 19) With the assistance of a helper, you should slide the hub down the pole till it is about 3 1/2 to 4 feet from the ground up. Place a c clamp under the hub. Stand your pole up and with the assistance of your helper you will place the entire pole, with hub and 1 attached arm over the ground stake. The c clamp will hold the hub in place while you finish the assembly.

Step 20) You have either purchased our DLB 350A brake winch or have provided one of your

Gemini Gourd Rack

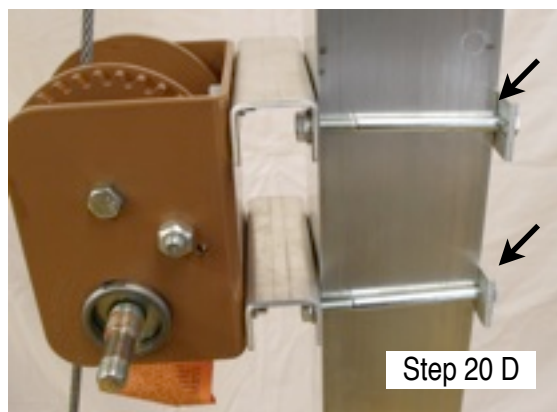


Step 19

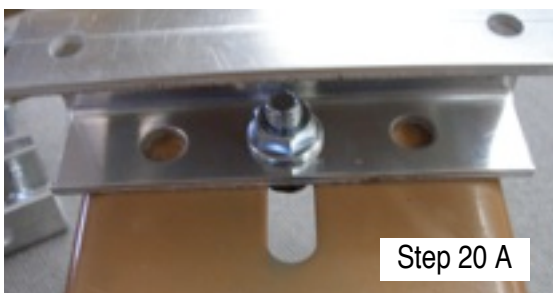


Step 20 C

own. Get your winch and the pre-assembled winch mounting hardware kits (F&G). Remove the bolt on the bracket (F) that is in the center hole and align the bracket to the inner hole on the winch. Insert the bolt from inside the winch and attach nut. Tighten the nut. Get your other bracket, (G) align the 2 outer holes of the winch bracket to the winch, insert bolts from inside the winch, and tighten nuts using your 1/2" wrench. See photos Step 20 A, B, and C. You want your brackets to have the open side face towards the ground as seen in the photos 20 D.



Step 20 D



Step 20 A

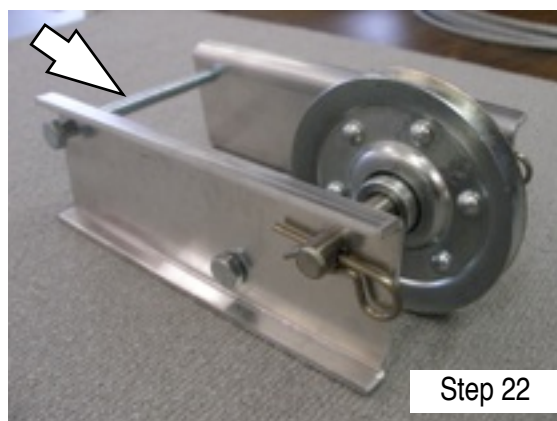


Step 20 B

Step 21) Assembling the winch to the pole. Your winch bracket unit has a back plate pre assembled. Remove one whiz nut and bolt from the upper bracket and one from the lower bracket, same side. Have your helper hold the winch at your desired height (approximately 19-23" above ground) while you attach the back plates on the back side

of pole and tighten whiz nuts. See photo Step 20 D.

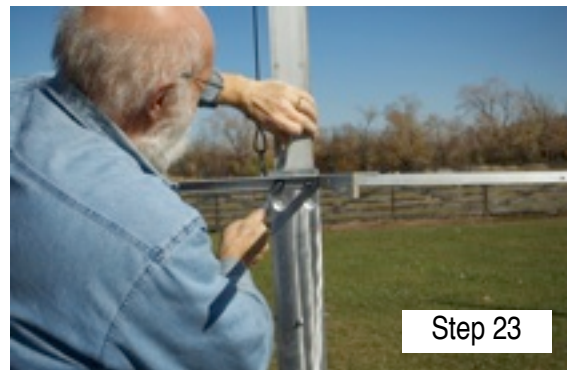
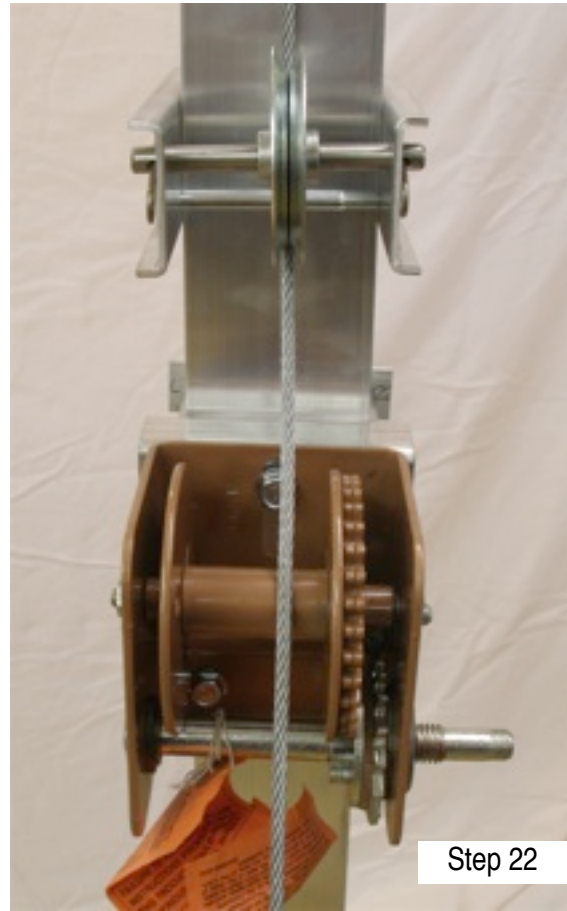
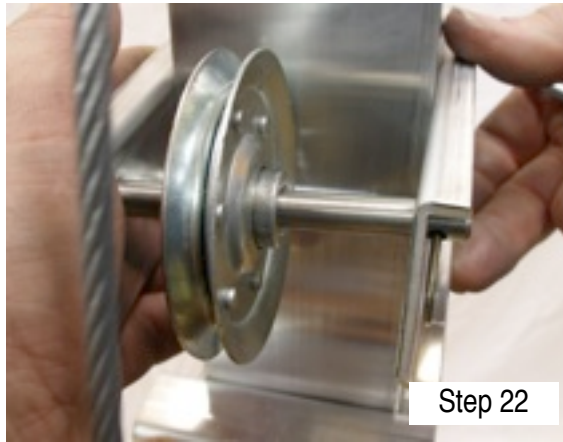
Step 22) Approximately 6 inches above the winch you will want to place the 3 inch pulley assembly (O). The 3 inch pulley assembly has been completely pre-assembled. Pull the entire assembly apart. It should look like the photo step 22.



Step 22

Remove the bolt and nut from the bolt furthest from the pulley. Stand directly to the front of your mounted brake winch and slide this entire unit so that the brackets encase the pole. Replace the bolt and nut, make sure the bracket is square to

Gemini Gourd Rack



the pole and tighten the nuts. Find the end of your cable and run it so that it falls behind the 3" pulley and then drape the cable to the front of the brake winch. **Please read and follow the instructions that came with your winch.** These instructions will also explain how the cable should be attached to the drum of winch. Once you have attached the cable to the winch you can remove the c clamp. Its time to finish the hub assembly. Raise your hub to a comfortable working height. You may need to pull down on the arm applying weight to the hub in order to meet the minimum weight load of the winch.

Step 23) Working clockwise from the arm that is already on the hub. Remove the next set of nuts attach angle arm (I) in the same manner you did in Step 11. Make sure each angle arm is square to hub before tightening bolts. Remember when tightening the bolts its best to place one wrench

inside hub to keep the bolt from rotating. Finish the upper tier then do the lower tier of arms (I)

Step 24) You will need your 4 angle arms that are mitered on one end (B) and 4 flat aluminum pieces (C). Remove the nut from the center bolt on your hub. Locate the hole on the ends of the flat piece, place the flat piece on first, (doesn't matter which end) the place the angle on using the end that IS NOT mitered. Replace the nut back on to the bolt, do not tighten. Separate the arms so it looks like the photo step 24. You will notice that the upper and pieces will align with holes on the upper and lower angle arms (I) you attached to your hub in

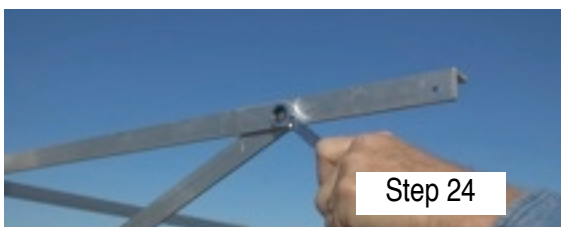
Gemini Gourd Rack



Step 24



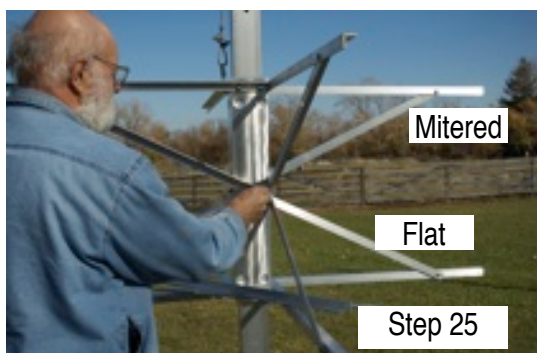
Step 24



Step 24

the earlier step. Use one of your 1/4-20 x 3/4" (X) stainless bolts and nuts and place thru the hole in the angle arm (I) to the mitered arm. The bolt should go from the back side of angle arm thru the notched angle piece with the nut on the notched angle side. Its easier to tighten the nuts and bolts by placing them on this way. Place your wrench on the bolt head and tighten.

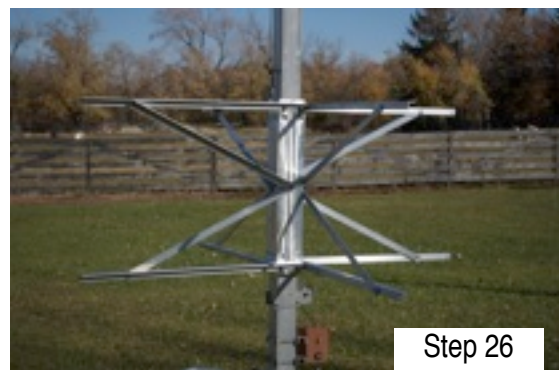
Step 25) Using the flat bar (C) align the unused hole to the hole on the lower angle arm, insert 1/



Step 25

4-20 bolt (X) and thread the nut on (X), as you did in step 24.

Step 26) Working clockwise continue to place the next set of mitered and flat piece and attach with bolts and nuts (X) to the corresponding anglet arms. When you have all the internal beam work complete your hub should like this. Tighten all nuts and bolts that you have used to this point.



Step 26

Step 27) Attaching the rings. Place the small angle bracket pieces (L) on to the end of each of the 8 arms. You will need your brackets (L) and 4 1-4-20 bolts and nut (X). The small angle bracket pieces have no right or wrong way, so simply align the brackets so that one bracket goes left and one right and sandwich the bracket pieces around the end of the angle arm (where you still have an unused hole) Insert one of your bolts, being sure that you bolt is facing the same direction as the one that is used for the mitered arm. **DO NOT TIGHTEN THE BOLTS.** Repeat the process till you have all 8 arms done.



Step 27

Step 28) Adding the ring. The rings have a right and wrong way (see photo). You want each of your 4 sections per ring to have the pre-punched hanging holes face toward the ground. Begin by



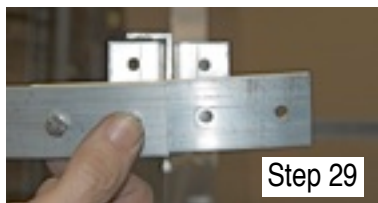
Correct

Gemini Gourd Rack

getting 2 of your ring sections (H) and 4 of the connecting plates (M) and 16 1/4-20 bolts and nuts (X). On 2 of the ring section you will want to bolt the connecting plate on. Using one of your 1/4-20 x 3/4" bolt, (X) one of the connecting plate (M) and one whiz nut (X) you want to bolt the the connecting bracket on to the end of the ring section. Notice that your connecting plate has 4 holes in it. Align the connector so that the 2 sets of holes match the end of the ring section. Place the bolt into the inner hole of the ring section, with the connecting bracket to back side of the ring, place on a whiz nut. DO NOT TIGHTEN the bolts yet. You will want to repeat this process on both ends of the ring section you are working on as well as a second ring section.



Step 29 It's time to mount the ring sections on to the support arms. Using one of your rings you just added the connecting plate, hold the ring section up to the end of the angle arm which has the small brackets attached loosely to it. Hold up the ring section and align the the holes as seen in the photo step 29. Insert 1 bolt next to the bolt that holds the connecting plate on the ring thru the corresponding hole of the small angle brackets. Thread on the nut. Repeat the process on the other side of the ring section you just attached. DO NOT tighten the bolts just yet.



Step 30 Go to the opposite side of the rack. Attach the other section of the ring that has the pre-assembled connecting plates. Assemble it onto the the angle arms in the exact same manner you just attached the first ring. Did you double check to make sure your ring sections pre punched holes are facing toward the ground? Next attach the last two ring sections. The rings will attach to the front of the connecting brackets. Align the



holes from the ring to the connecting plates insert the bolts and thread on the nut (X) Remember not to tighten the bolts yet. Once all the ring sections have been attached its time to tighten ALL the bolts. Do this by tightening the bolts at the bolt head. Don't forget to tighten the bolts that hold



the small angle pieces on too! When you have completed the upper ring repeat for the lower ring.

Step 31 Double check that all 48 of your bolts (X) are nice and tight. Adding gourds. This rack has holes pre-punched every two inches. You can use either #12 copper wire (not included), or our optional gourd mounting arms are ideal to hang gourds. Depending on the size of gourds you use you should be able to place a minimum of 12 gourds per ring.



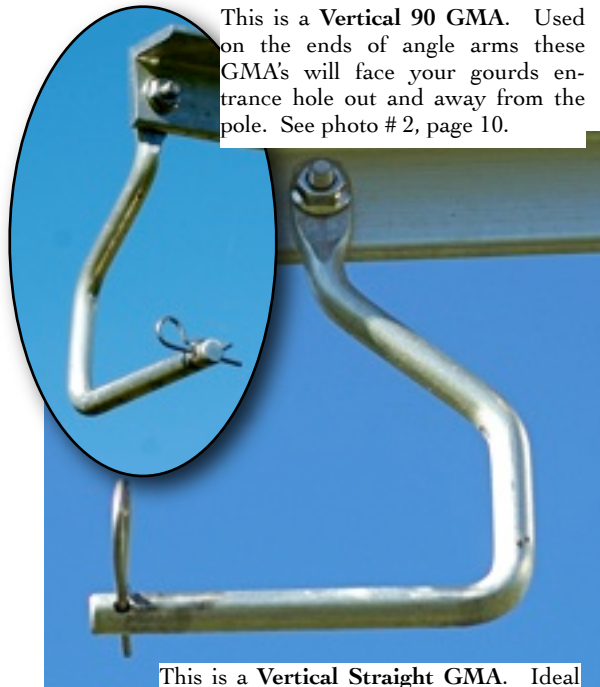
Thank you for purchasing this gourd rack. Should you have any questions about the assembly of this rack, please don't hesitate to call.

Gemini Gourd Rack

Gourd Mounting Arms are ideal to use when you want to hang your favorite gourds from the rings on the Round Rack and the Gemini

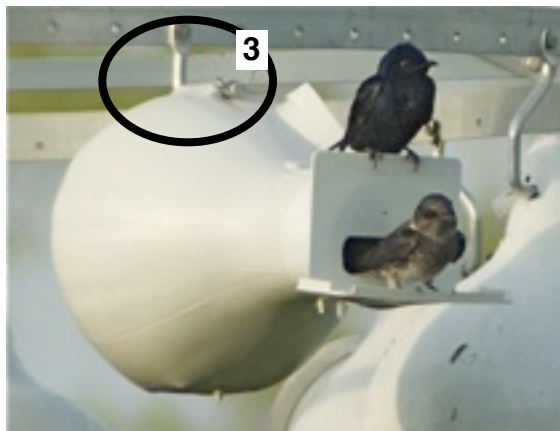
Gourd Mounting Arms will work with any gourd that has a 3" neck, such as SuperGourds, Troyer Gourds and Excluder Gourds. The type of gourd you want to hang determines the style of Gourd Mounting Arm. When using SuperGourds and Excluder Gourds your best choice is to use vertically hung GMA's ie: Vertical Straight or Vertical 90. When hanging Troyer Gourds and most S&K gourds the Horizontal GMA's are the perfect choice. There are a few exceptions to the rule, for instance when you want to hang a Super-Gourd, not vertically but front and back (to the entrance hole, see photo #5 on page 10). Each Gourd Mounting Arm is made from solid 3/8" aluminum and attaches to the aluminum arms using a stainless bolt and nut, and the gourd is held firmly in place via a stainless hitch pin. In most cases you will need to enlarge the gourds hanging hole to 3/8". There are 4 styles to choose from: Vertical Straight, Vertical 90, Horizontal Straight, and Horizontal 90. GMA's are also available with a 5" opening for many large natural gourds. Call for availability.

To attach arms place bolt into hole of GMA, place that into a pre punched hole on the rings, install nut and tighten from the bolt side using a 7/16" wrench.

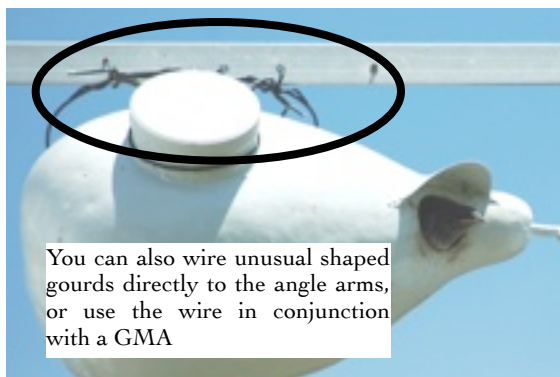


This is a **Vertical 90 GMA**. Used on the ends of angle arms these GMA's will face your gourds entrance hole out and away from the pole. See photo # 2, page 10.

This is a **Vertical Straight GMA**. Ideal for use on the rings. GMA's will face your gourds entrance hole directly below ring. See photo # 1 page 10.



This is a **Horizontal 90 GMA**. Ideal for the round rings, these GMA's will face your gourds entrance hole directly below ring. See photo # 3



You can also wire unusual shaped gourds directly to the angle arms, or use the wire in conjunction with a GMA

This is a **Horizontal Straight GMA**. Used on the ends of angle arms these GMA's will face your gourds entrance hole out and away from the pole. See photo # 4 page 10.



Gemini Gourd Rack

