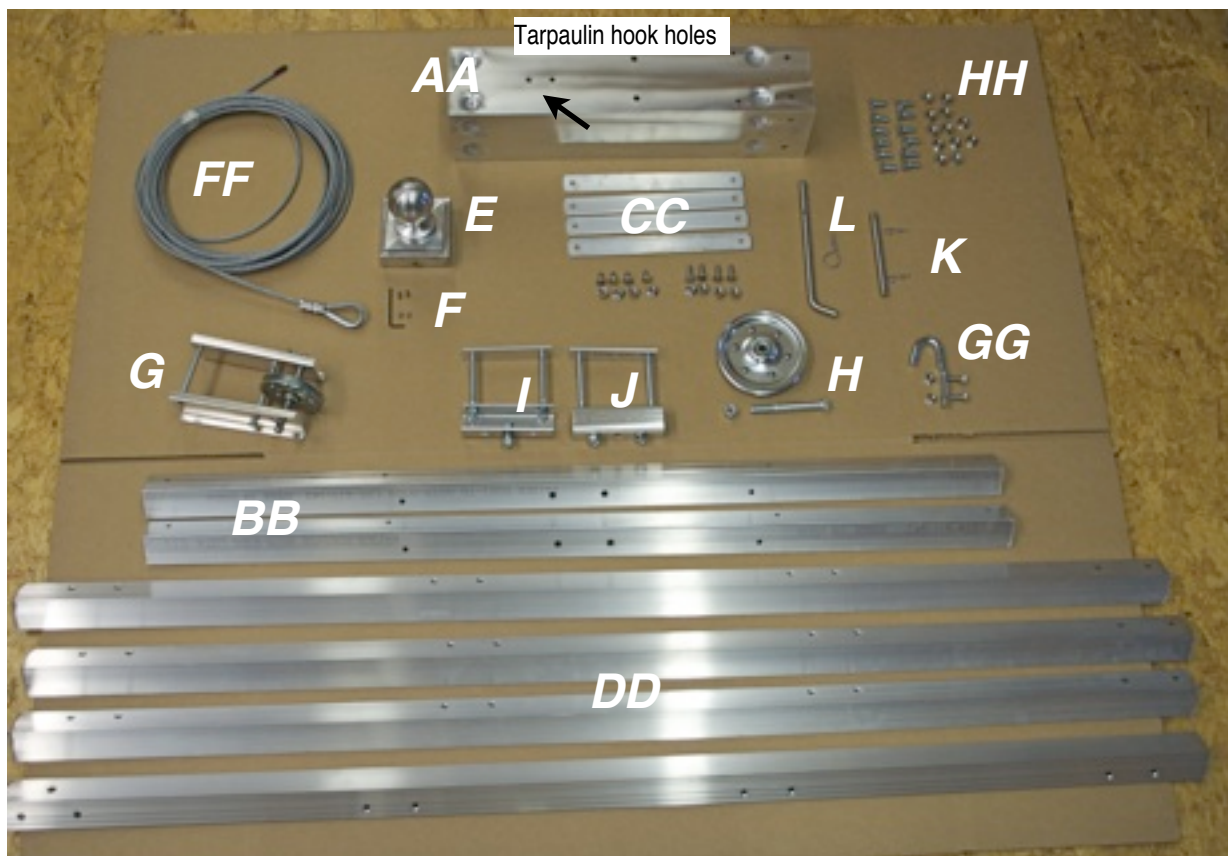


Hybrid Multipurpose Pole



POLE PARTS

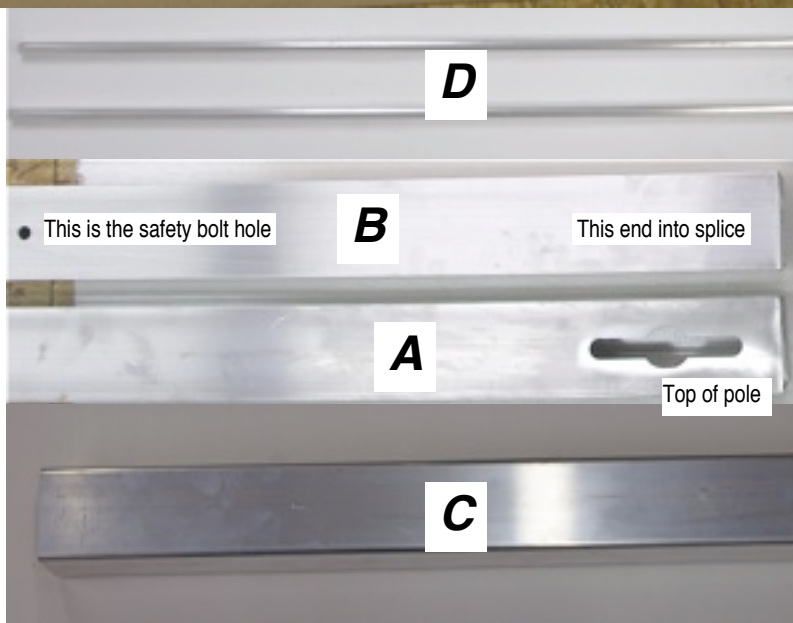
- A Top of Pole (packed in pole)
- B Bottom of Pole (packed in pole)
- C Ground Stake (packed in pole)
- D Top perch rods (packed in pole)

HUB BOX

- AA Hub
- BB 2-Angle arms
- DD 4 Aluminum Angle Arms
- FF 33' of cable with thimble
- E Ball Top
- G Pre-assembled 3" pulley guide
- I Brake winch bracket (single bolt)
- J Brake winch bracket (double bolt)

HARDWARE BAG

- F allen wrench and 4 set screws for ball top
- H 4" pulley, 3/8" bolt and lock nut
- K Stop Pin with hitch pins
- L Safety Bolt with hitch pin
- CC 4 aluminum braces with 4 1/4-20 x 3/4 and 4 1/4 20 x 1/2" bolts with stainless nuts
- GG Tarpaulin hook with TWO 1/4 - 20 3/4" stainless bolt with nuts.
- HH 12 5/16-18 X 3/4" grade 5 bolts used to attach all the angle arms to the hub with 12 5/16-18 stainless nuts



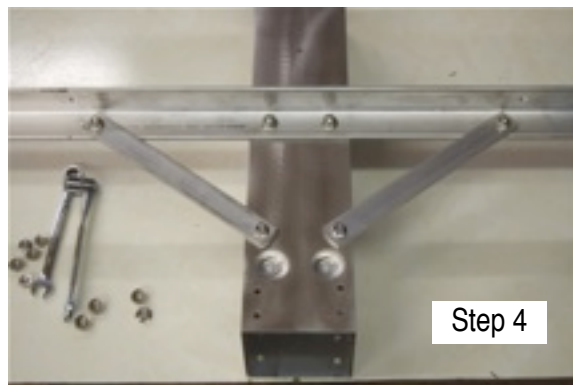
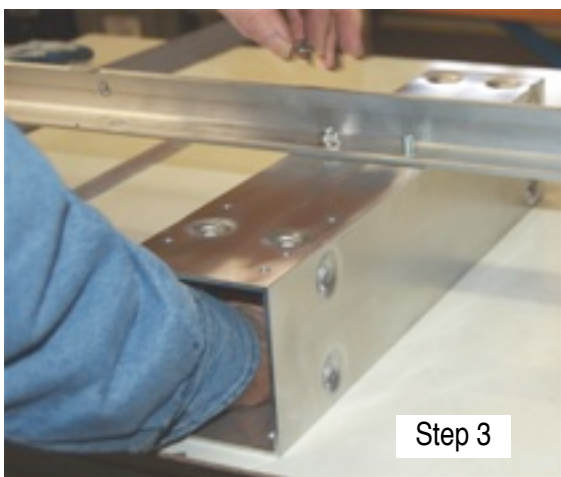
Hybrid Multipurpose Pole

Hub Assembly

Step 1) You will need your hub (AA) 2 angle arms (BB), the 4 aluminum braces (CC) You will also need wrenches in 1/2" and 7/16" sizes.

Step 2) Place your hub on table with the side up that has a pair of holes used for the tarpolian hook facing up.

Step 3) Get 1 of the angle arms (BB) and 2 of the 5/16-18 x 3/4" plated grade 5 bolts (HH). Insert 1 of the bolts from inside the hub going thru one of the center sets of hole, with the bolt lining up with the center section of angle holes. Thread on the 5/16 stainless whiz nut. Repeat with the other hole right next to it. Do not tighten the nuts.



Step 4) You will need 2 of your aluminum braces (CC) and the 2 of the 1/4-20 x 3/4" (the longer ones) and 2 of the 1/4-20 x 1/2" stainless steel bolts with nuts. Insert a 3/4" bolt from the back side of the angle arm thru the brace and thread the nut on, repeat with the opposite side. Remember don't tighten the whiz nuts. Bring the braces in towards the hub and align with the pre-drilled holes on the hub. This time you you using your 1/4-20 x 1/2" stainless bolts with stainless whiz nut (CC) and insert the bolts from inside the hub and thread the whiz nuts on.

Step 5) Checking to be sure the angle arms are square to the hub. Do this by placing a speed square on the hub above the angle arm, adjust the angle arm square to the hub and tighten the 6 nuts

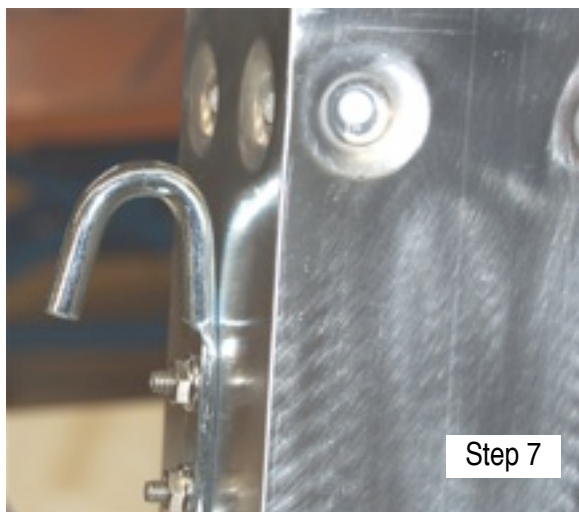


Hybrid Multipurpose Pole



you have just installed. You may need to use a wrench to hold the bolt from the inside of the hub while tighten nuts.

Step 6) Installing the tarpaulin hook (GG). Flip the hub around so the pre-drilled tarpaulin hook holes are closest to you. Line the holes of the hook to the holes of the hub, insert the (GG) 1/4-20 x 3/4" stainless bolt from the inside of the hub



thru the hook. Your hook should be installed like the photo.

Step 7) Flip the hub over repeat Step 3 - 6. When done make sure that ALL your nuts have been tightened.

Step 9) Insert the remainder of the HH bolts into the bottom section hub holes and attach the stainless whiz nuts. These bolts will hold the angle arms which we will install later in the instructions

Installing the Pole

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 (C). 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 (C) 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 small flat piece bolted on to the stake 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.

Hybrid Multipurpose Pole



Step 3-4

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



Step 5

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



Step 6

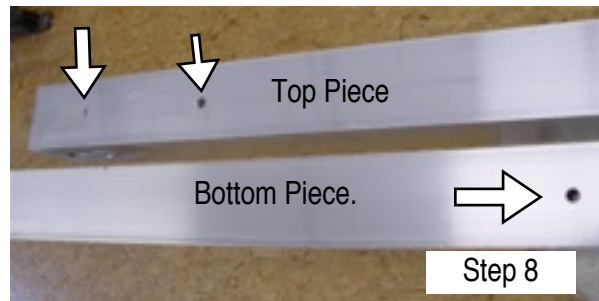
Step 7) Holding your ground stake vertically over the cement insert your aluminum ground stake into the concrete by pushing downward and pulling upward in a firm and steady motion. Stop inserting the stake when your ground stakes 24 inch mark is level with the cement. Did you remember to place the end with the removable stop piece into the cement? Next fill the hollow tube with your left over cement. Compact the cement by gently tapping the side of the stake, 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 at least 2 days before you continue with the installation.



Step 7

Step 8) Assemble the pole. Take your bottom section (B) and lay over an upturned 5 gallon bucket or similar object. then lay the top pole piece (A) next to it. Rotate the bottom pole (B) till you see 1 hole facing upward on the bottom piece, 6 feet up from the bottom of pole (this is your safety bolt hole). On the top pole section (A) rotate till you see 2 holes facing upward . Insert the top



Step 8



Step 8



Step 8

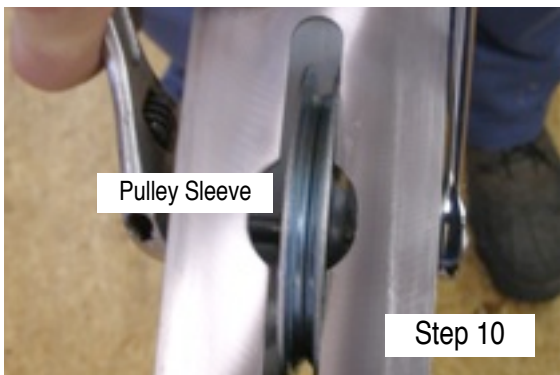
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piece into the bottom piece keeping the holes aligned. Lay pole back down on bucket, holes facing up. Tip! Spray WD40 on splice to aid in insertion

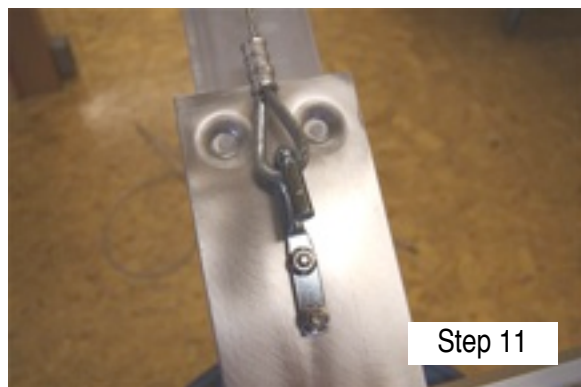
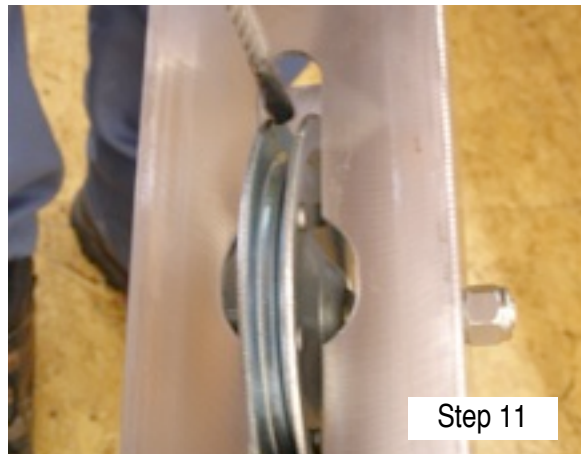
Step 9) Slide your pole thru the assembled hub. Align the hub so the tarpaulin hook is facing the top of the pole and that the hub unit (with the tarpaulin hook) is on the same side as the pulley slot.



Step 10) You will need your 4 inch pulley, bolt and lock nut (H). Insert the pulley into the slot and hold it there while you take the bolt and insert the bolt into the hole, through the pulley and out the opposite side of the pole. Place lock nut on and tighten using 2, 9/16" wrenches (one to hold bolt the other to tighten).



Step 11) Take the end of the cable that has the loop with crimp and insert the loop through the tarpaulin hook. Find the opposite end of the cable and run the cable from the same side as the tarpaulin hook, upwards to the 4 inch pulley thru the pulley and back downwards, sending the end of the cable thru the center of the hub between the hub and the pole. If the cable does not come out the bottom of the hub in the center, between the glide buttons do it again. Let the cable hang.



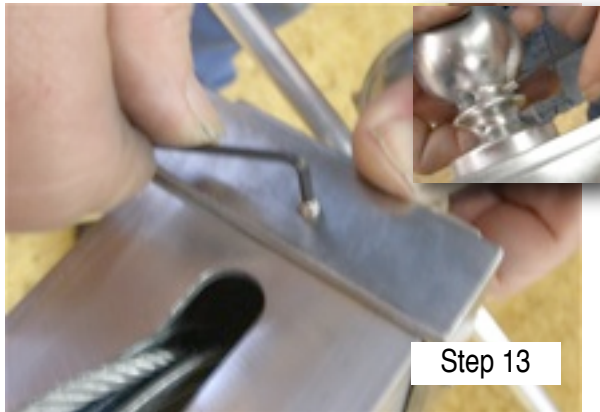
Hybrid Multipurpose Pole

Step 12) Inserting stop pin.

Remove one of the pre assembled hitch pins, insert the pin into the stop pin hole on your pole, reinsert the other hitch pin.



Step 13) Ball top and top perch rods. IMPORTANT! Depending on your housing you may or may not be able to use both top perch rods (see photo on page 8). To install the top perches



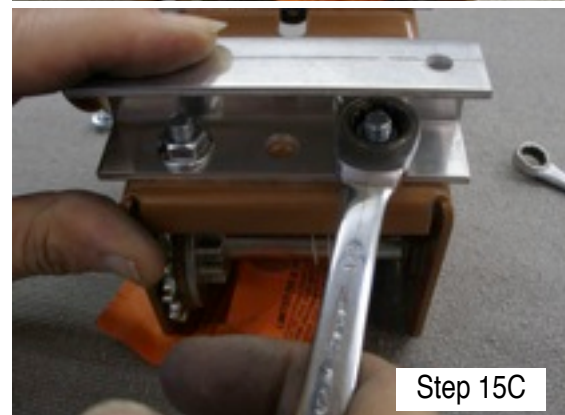
into the ball top (E), measure the top perches (D) and find the center of the top perch and mark. Insert the top perches into the ball top. Locate the small drilled and tapped holes. These are for the set screws. Use the longer set screws (FF) for the top perches, the shorter set screws (FF) to hold the ball onto the pole. Use the short end of allen wrench to tighten the set screws. It is very important to tighten the set screws snugly to both the rods and the pole.

Step 14) Place a C-clamp on your pole at around 3 - 4 feet up from the bottom. With the aid of a helper run your hub down the pole to the clamp

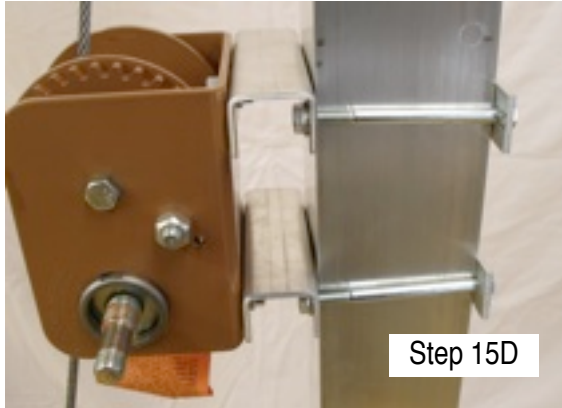


and stand the pole up and with your helper lift the pole up and over your ground stake.

Step 15) Install the winch brackets and winch. You have either purchased our DLB 350A brake winch or have provided one of your own. **Failure to use a brake winch could cause harm to the operator.** Get your winch and the pre-assembled winch mounting hardware kits (I & J). Remove the single bolt on the bracket (I) and align the bracket to the inner hole at the top of the winch. Insert the bolt from inside the winch and attach nut. Tighten the nut. Get your other bracket (J), align the 2 outer holes of the winch bracket to the winches lower holes, insert bolts from inside the winch, and tighten nuts using your 1/2" wrench. See photos Step 15 A, B, and C. You want your brackets to have the open side face towards the ground as seen in the photos 15D.

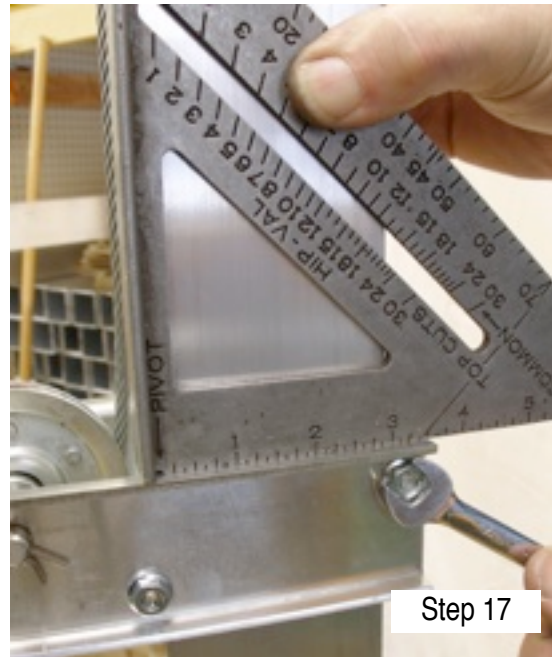
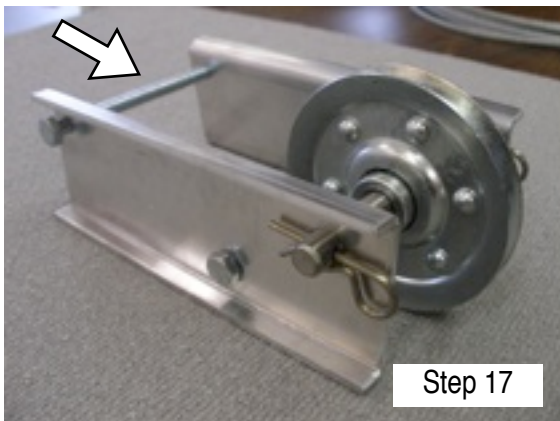


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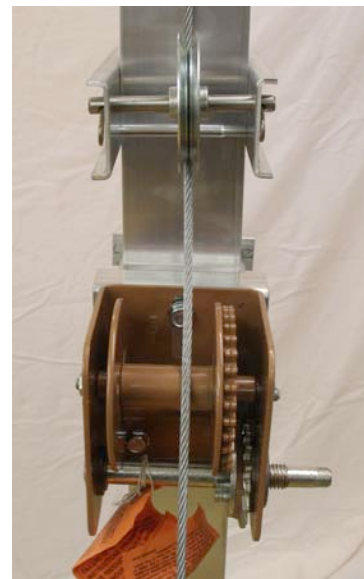
Step 16) Assembling the winch with brackets to the pole. Your winch bracket kit has a back plate pre assembled. Remove one whiz nut and bolt from the upper bracket and one from the lower bracket, same side. Have your helper hold the winch unit at your desired height (approximately 19 - 23" from the ground up) while you attach the back plates on the back side of pole and tighten whiz nuts. See photo Step 15D. If done correctly you mounted the brake winch on the opposite side as the tarpaulin hook that is on your hub.

Step 17) Approximately 3-6 inches above the winch you will want to place the 3 inch pulley assembly (G). The 3 inch pulley assembly has been completely pre-assembled. Pull the entire assembly apart. It should look like the photo. Notice the orientation of the hitch pins. 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 the pole and tighten the nuts.

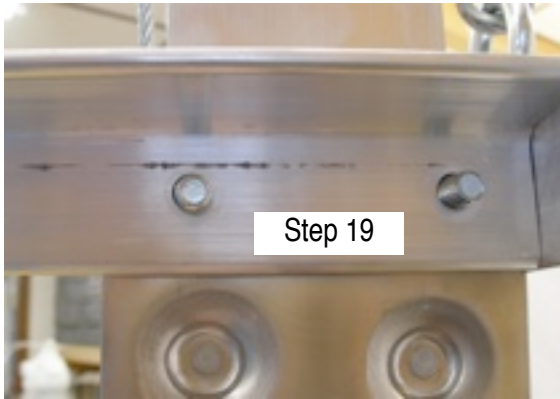
Step 18) Find the end of your cable and run it so that it falls behind the 3" pulley guide (G) and then drape the cable to the front of the brake winch. Please read and follow the instructions that came with your winch. to assemble the cable on to the drum of the winch Once you have attached the cable to the winch you can remove the c clamp.



Step 19) Attach the 4 angle arms on to the hub. I like to work at a comfortable height so using your brake winch raise up your hub to a good working height. Remove the nuts (HH) from one side of the hub and align the plain holes on the end of

Hybrid Multipurpose Pole

angle arm to the bolts, slip the bolts thru the arm holes, replace the nuts, and using your speed square, square the angle arm to the hub. When placing the angle arms onto your hub you want the angle arms to be placed so that the flat part of the angle is at the top of the angle arm. Repeat till you have all 4 angle arms on the hub. Tighten the nuts and bolts.



Step 20) Attach housing to the angle arms. If attaching our Purple Martin Safe Haven you need not add any extra material to the bottom of the house. If using other aluminum housing make a custom fit wooden bottom. You will need a piece of 1/2" or thicker exterior grade plywood (not provided). Cut the plywood the size of your aluminum house bottom. Some aluminum houses have lips along the edges, if your house does, cut your plywood so that it fits within the lips of the house. Next pre drill holes into the plywood that will be used to mount the plywood to your aluminum house. If your wooden platform will align with the pre-punched holes in the angle, mark the holes and drill your plywood, or drill your own holes in the angle arms. We recommend that you use 1/4"-20 carriage bolts (not provided) to mount the plywood platform to the angle arms. After the plywood has been bolted in place, place your housing on the wood and bolt the housing onto the wooden platform. After you take your housing up insert your safety bolt (L) into the hole that is approximately 6 feet up from the ground, insert hitch pin.

That's it! While raising your housing watch to make sure your housing doesn't hit the top perch rod(s) before the hub hits the stop pin. If your housing hits the top perches, you will not be able to raise your hub to the stop pin, without removing a top perch rod.

Attach gourds to your angle arms by using either #12 copper wire (not included) or purchase our optional Gourd Mounting Arms.

How to care for your rack.

Due to the size and design of this unit, you may wish to leave it up year round. Remove gourds. You can wax your pole, hub and arms at the end of each season using your favorite car wax. Periodically check the bolts and nuts during the year.

Wire cable can fray over time. Check your cable periodically for signs of fraying or damage. Should you need a replacement cable, simply get in touch with us, we will get you a new cable at a reasonable cost.

