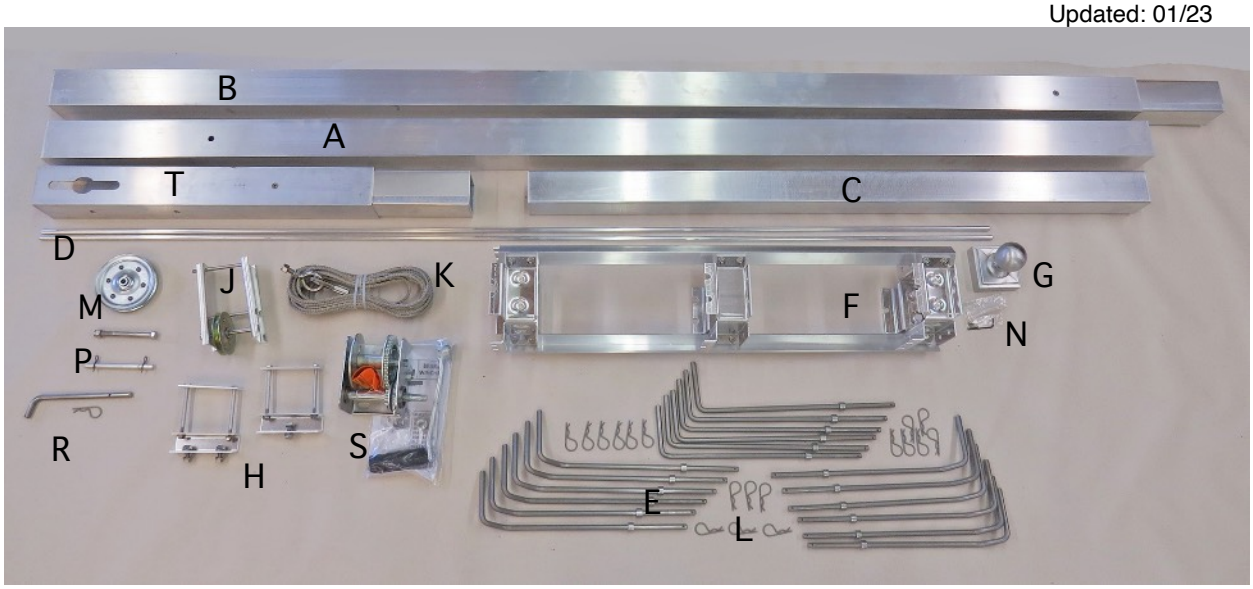
Troyer's Ultimate-Deluxe K Gourd Rack: 12, 18 or 24 Unit

Updated: 01/23



Parts List

Pole Box

A (1) Bottom of pole has a pre drilled hole (for safety bolt) 6 feet up from the bottom, (see circle).

B (1) Center of Pole (has a square cut end and opposite has splice)

T (1) Top of pole (has the slot for pulley at top, (shown), and an aluminum splice at opposite end).

C (1) 48" heavy duty ground stake (aluminum)

D (2) Aluminum perch rods 72".

Hub Box

E (12) (18) (24) horizontal stainless gourd arms.

F (1) Hub 18 (shown) or 12 or 24 unit

G (1) Aluminum ball cap

H (2) Winch mounting brackets (pre assembled with bolts and nuts).

J (1) cable guide (pre assembled bracket, pulley and bolts with nuts)

K (1) 7 x 19 x 3/16" stainless cable 32' with attached eyebolt and nut.

Hardware Bag

L (12) (18) or (24) stainless hitch pins (to secure gourds on to the gourd arms).

M (1) 4 inch pulley with 3/8" x 3-¾" bolt and 3/8" lock nut.

N (4) 10 - 24 x 3/8" SS set screws (used with ball top)

P (1) Stop pin with 2 attached hitch pins.

R (1) Safety bolt with stainless steel hitch pin.

S (1) Brake Winch with its own instruction/hardware bag.

The assembly of this gourd rack is identical whether you have a 12, 18, or 24 unit. The only differences are the length of the hub and the number of gourd arms and hitch pins that are included.

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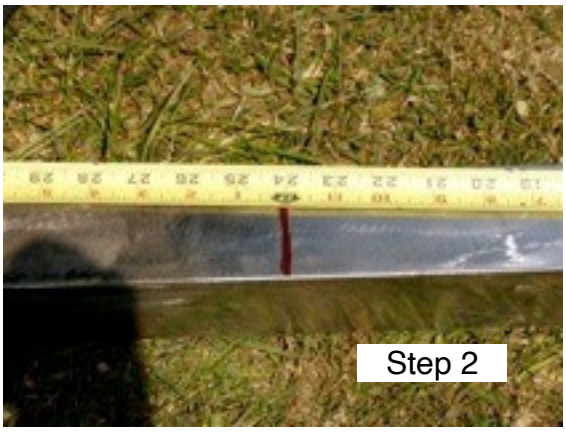
The installation of a ground stake is as vital as the foundation of your home. Both need to be done correctly in order to support the housing.

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 at 24" from either end. This will help keep your ground stake at the proper installed above ground height.



Step 3) You will need <u>at least</u> 4 bags of Ready to Use Concrete Mix, 80 pounds each.

Step 4) Empty contents of the Ready Mix into a wheelbarrow. *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. It does not matter which end of the ground stake you insert into the ground. Stop inserting the stake when your ground stakes 24 inch mark is level with the cement. Next fill the hollow (stake) 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 away from 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.

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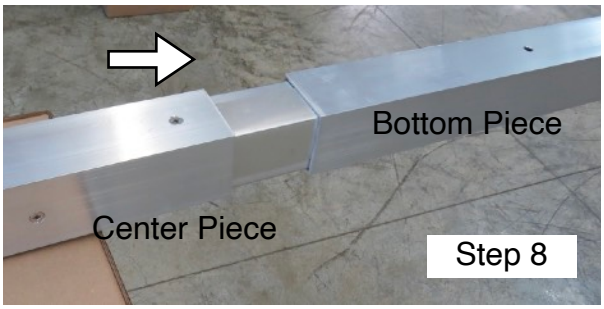
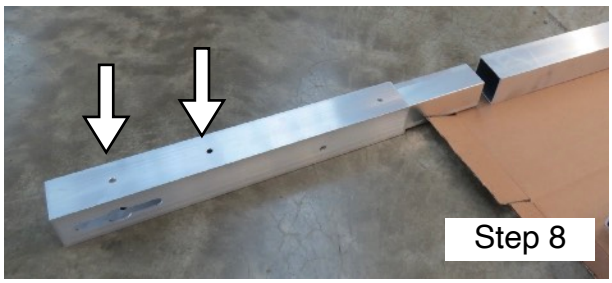
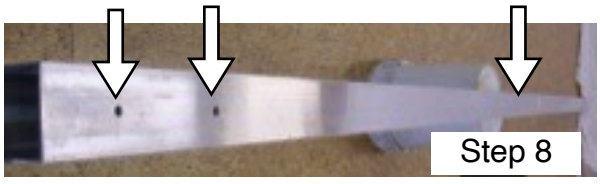
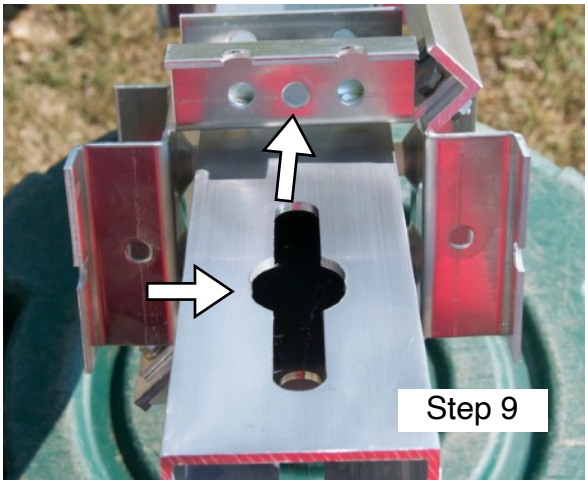
Step 8) Assembly of the 3-piece pole. Start by getting your bottom section (A). It is 84" overall and has 2 square cut ends. Then get your center section (B). You are inserting the center piece into the bottom piece. Make sure your safety bolt hole, which is 6' up from the bottom, is the end to which you will insert the splice from the center pole section. Now you will insert your top pole section (T). You need to insert the top section oriented with the 2 holes facing upwards and that it will align on the same side as the safety pin hole (arrow) found in the bottom section, see photos step 8. When your pole is completely assembled all the holes, safety pin in bottom section and the 2 holes in the top piece are all on the same side. If not, rotate the top section until they are.



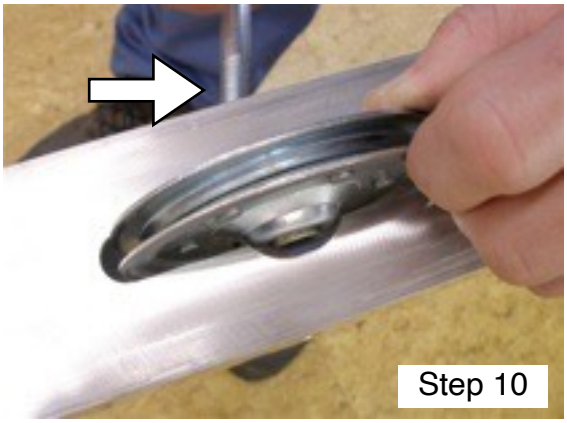


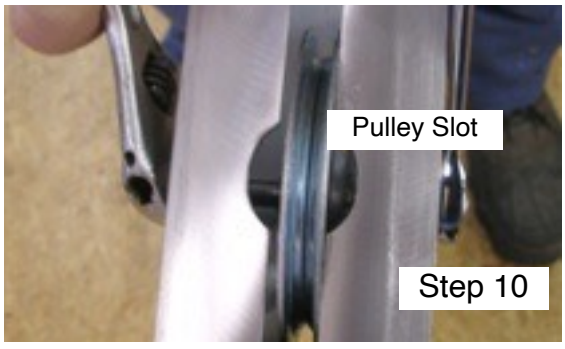


Step 9) Rotate the pole so that the pulley slot with notch is facing upward. Pick up your hub (F) and slide the hub over the pole. The hub needs to be oriented so that top of the hub which has a series of 3 holes is faced on the same side as the pulley slot (pole) with notch, (see photo step 9).



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





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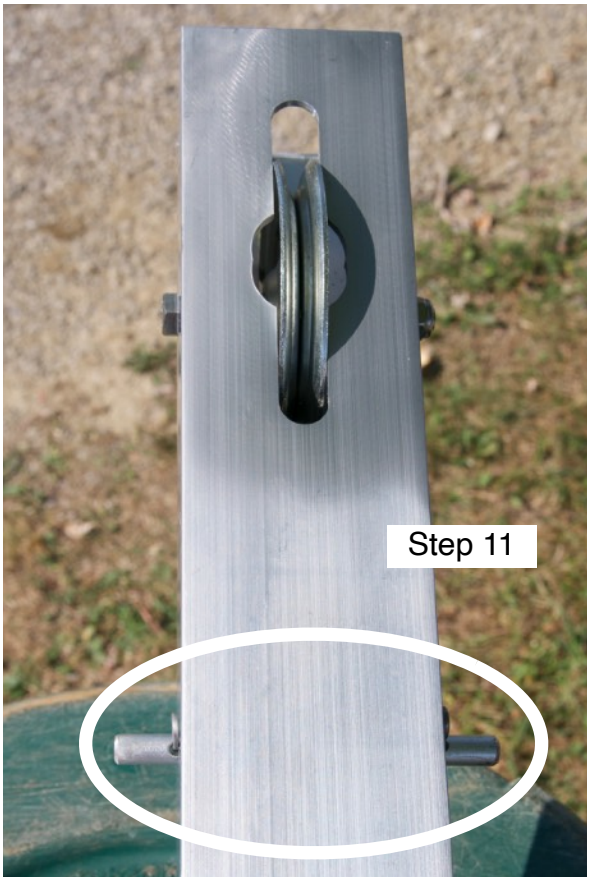
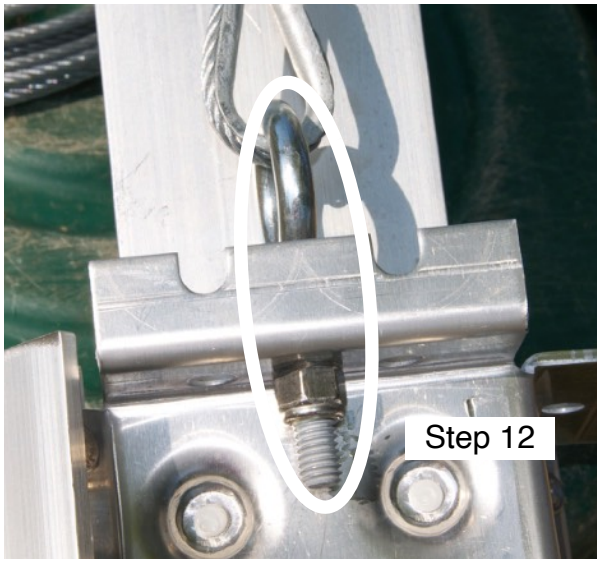
Step 11) Insert the stop pin found in your hardware bag (P). Remove 1 of the hitch pins from the pre assembled stop pin, insert into the hole below the pulley, and replace the hitch pin.

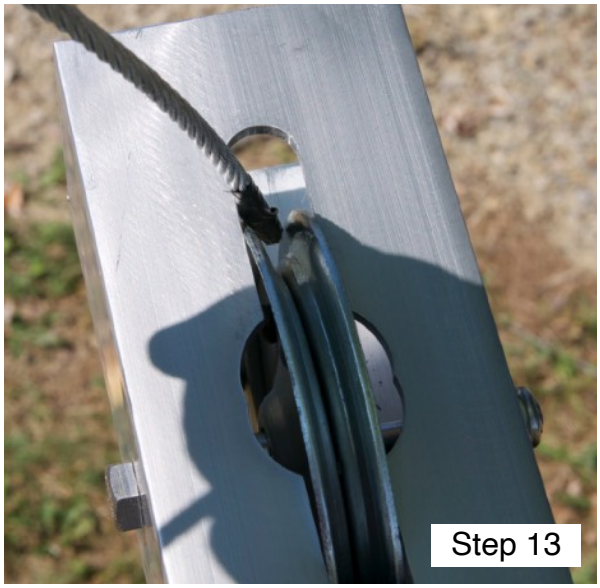


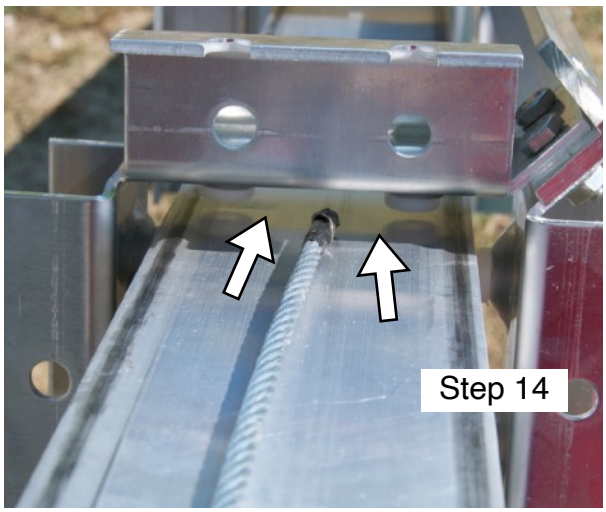
Step 12) Next we are going to attach the eyebolt on the cable to the hub. You will need your cable part (K) and two 9/16" wrenches. Wear a pair of gloves, then begin by removing all the wrapping around the cable and unfurl the cable. Grasp the end with the eyebolt and remove the attached lock nut from the eyebolt. Slip the end of the eyebolt into the CENTER hole in the upper top hub piece as shown in photo step 9. Place the lock nut back on to the eyebolt, and tighten the lock nut all the way to the hub. You will also need to orient the eyebolt as seen in the photo step 12. The correct orientation of the eyebolt is critical to the performance of the cable so be sure it looks exactly like the photo.

Step 13) Take the end of the cable (has a stop nut on it) and insert it thru the top of the pulley and pull the cable thru the opposite side of the pole and let the cable fall to the ground.

Step 14) Flip the pole over. Next grasp the end of the cable and insert the cable so that the cable



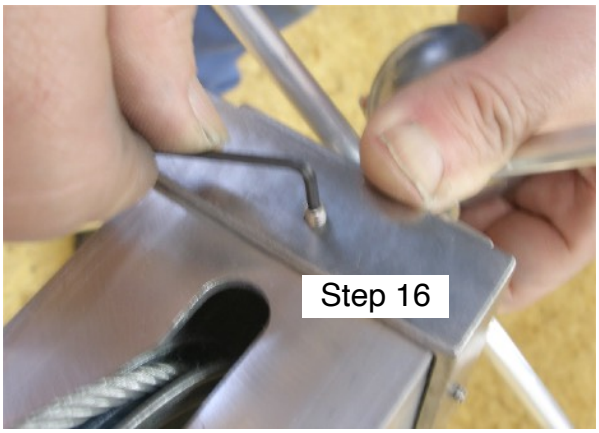




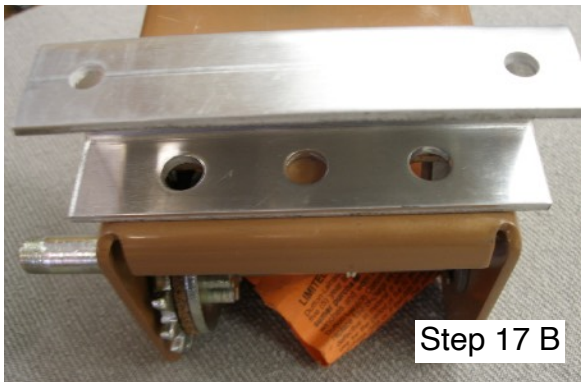
runs along the pole IN BETWEEN the installed glide buttons at both the top and bottom of hub. (See photo step 14 on page 4). The cable MUST be between the glide buttons and against the pole of the entire hub or the hub will not raise and lower. Let the cable lay on the ground while you complete the next step.

Step 15) Ball top (G) and top perch rods(D). Get your 4 set screws (N). **Use 2 of the set screws** in the ball top and the other set screws to hold the ball top onto the pole. Insert the lower top perch rod (D) first into the ball top. Find the center at 36" and **tighten** set screw. Repeat for the upper top perch rod.

Step 16) Place the ball top onto the top of your pole. Tighten the two set screws using the provided Allen wrench.



Step 17) Before we place the pole with hub on the ground stake we are going to mount the winch (S) and winch brackets (H) on to the pole**.** You will need your winch and the pre-assembled winch mounting brackets (H). Remove the single bolt on the bracket (H) that is in the center hole and align the bracket to the inner hole on the winch. Insert the bolt from the inside of the winch and attach the nut. Tighten the nut. Get your other bracket, align the two outer holes of the winch bracket to the winch, insert bolts from the inside of the winch, and tighten nuts using your 1/2" wrench. (See photos Step 17A, B, and C). You want your brackets to have the open side face towards the ground as seen in the photo 17D on page 6.



Step 18) Assembling the winch to the pole. Working on the same side that you last were in step 14, you will now attach the winch and winch brackets to the pole. Measure from the ground up about 19". This is where you will want to mount your winch with brackets. Your winch brackets have back plates pre assembled. Remove one whiz nut and bolt from the upper bracket and one from the lower bracket, same side. Slip the bracket assembly so that the one set of bolts still attached to the black plate encases the pole, see photo step 18. Have your helper hold the winch & brackets while you insert the upper bolt, thread the nut on then repeat for lower bracket. Tighten to hold in place, no more. Once your pole is on the ground stake you can tighten the whiz nuts. Your winch brackets should be square to the pole.

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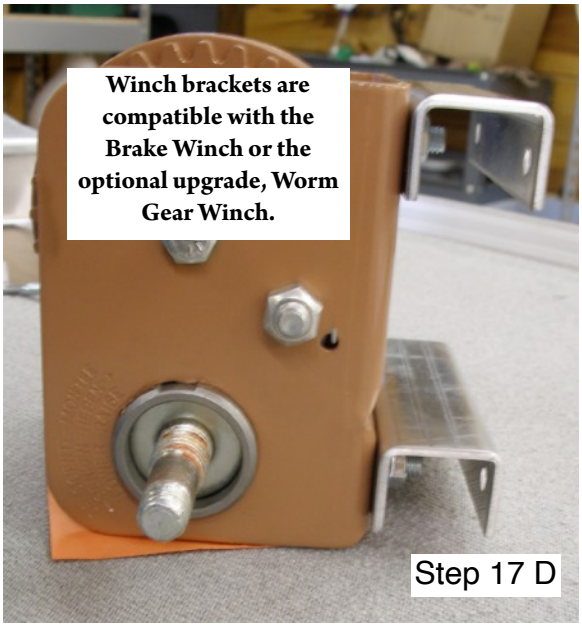
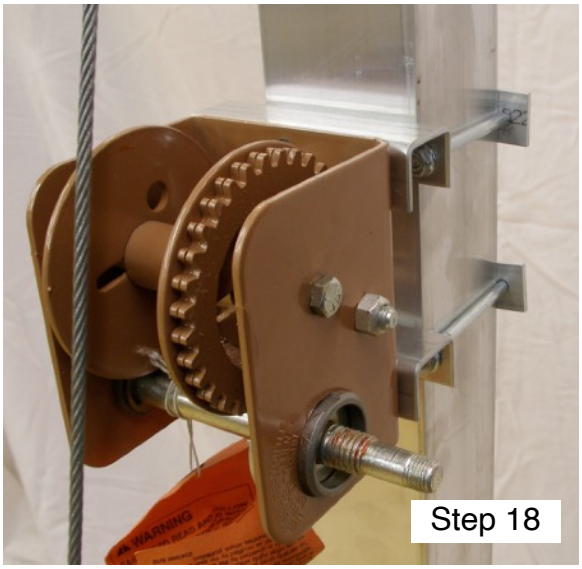
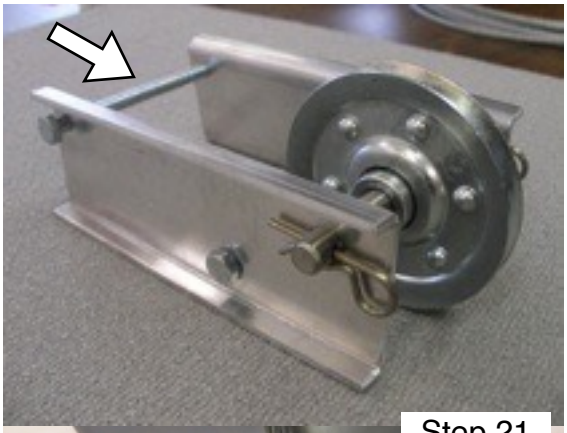


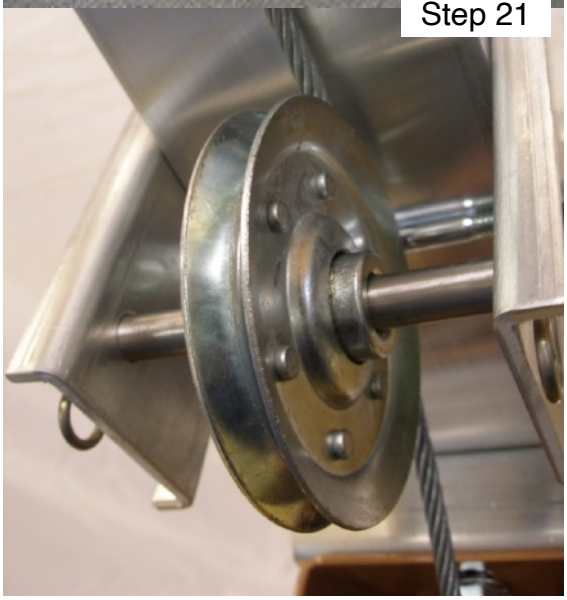


Step 19) DO NOT raise the hub until you have your gourd arms in place.

Step 20) Lower hub to the brake winch. With the aid of a helper stand the pole with hub and lift the pole up and slide it over the ground stake.

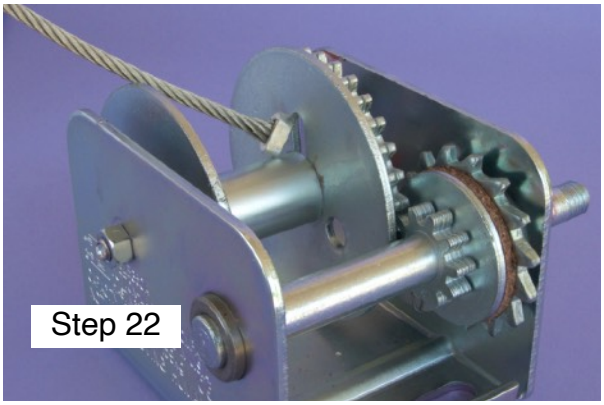
Step 21) After your pole is on the ground stake, you will want to attach the pulley guide. Approximately 3" - 6" above the winch assembly you will want to place the cable-pulley guide (J). (It's ok to raise the hub to place the pulley guide in place, just don't raise it higher than you need to) The guide has been completely pre-assembled. Pull the entire assembly apart. It should look like the photo below. Remove the bolt and nut that's 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, making sure the bracket is square to the pole by using your square, and tighten the nuts.

Step 22) Its now time to attach the cable to the brake winch. We have installed a stop nut on to the end of the cable. Insert the end of the cable



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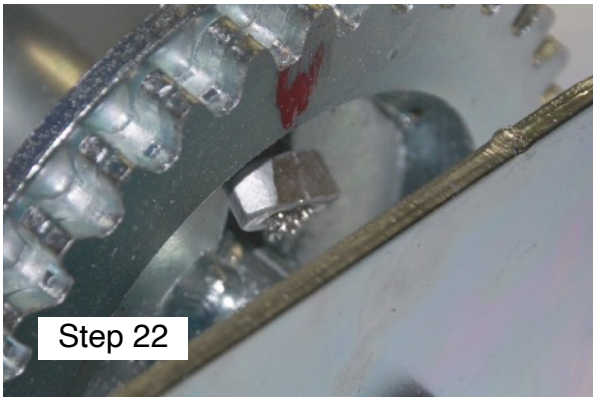
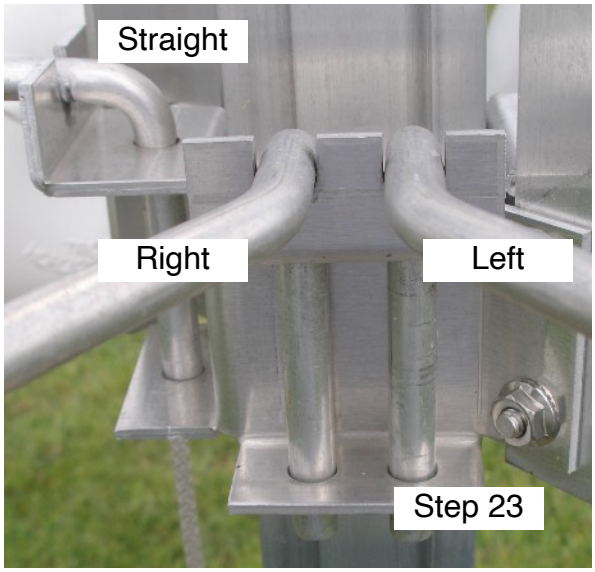


with the stop nut into the OVAL hole on the gear side of the brake winch. Insert the stop nut from the inside of the winch so that it goes thru the oval hole and out. Turn the cable so that the stop nut is horizontal to the hole and when you pull on it, it won't come back out thru the oval hole. Attach the handle of the winch following the instructions provided with the brake winch.

Step 23) Install the gourd arms (E). Your gourd rack has 3 different styles of gourd arms. There are arms that are straight (wrapped in white rubber bands), there are arms that are bent to the right (wrapped in red rubber bands), and arms that are bent to the left (wrapped in blue rubber bands). Straight arms are always inserted into the single bracket holes. The paired hub bracket holes use your left and right arms. Notice in photo 23 how the left and right arms turn out from the hub. Make sure your arm is fully seated into the u shaped slot.



Once the arms are on you can put your gourds onto the rods. Horizontal style arms are provided. If you are using other gourds such as a Super-Gourd you will need to change your gourds hanging hole orientation so that the hanging hole is drilled front to back of the gourd. Use a ⅜" drill bit to enlarge the hanging gourds hanging hole.

Once *all your gourds are on* its time to raise the hub section with gourds.

DO NOT raise your rack without the gourds on. (Sufficient load must be applied to overcome internal resistance and operate the brake winch properly. Please read all the safety and installation instructions that came with your brake winch. Once you have raised the hub above the safety bolt hole insert the safety pin (R) into the hole about 6' up. When raising the hub, stop when the hub touches the stop pin at the top of the pole. Do Not over tighten the winch. This will place undue stress on the pole and cable.

Compatible With:
EZ Off Pole/Predator Guards
Troyer Vertical & Horizontal Gourds
SuperGourds and most natural & other gourds

Ultimate-Deluxe K Upgrade Kits Available
12 Up 18
12 Up 24
18 Up 24

Please refer to or call for your current Troyer's Birds' Paradise catalog for these products and so much more.

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How to care for your rack.

Due to the sheer size of this unit, you may wish to leave the pole up year round. You can remove both the gourds and gourd arms for winter storage. It is recommended that you wax your pole prior to installation, using your favorite high quality car wax.

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.

Keep your purple martins safe from climbing predators and install a pole guard, or baffle, which will help to keep raccoons or feral cats from raiding your nests.

Tips

With weather becoming more severe every year we are recommending that anytime your area is forecasting "severe" weather lower your hub section a minimum of two feet. Even if your gourd rack is fully occupied your martins won't mind the rack being lowered and will continue to sit on their eggs or feed their young. Do this as early as possible and never in the middle of the night.

When your hub has reached the stop pin reverse the winch handle a ¼ of a turn. This helps to take stress off of the cable.

Never, ever remove that flat head bolts that are holding your aluminum splice into place. We have special tooling that allows us to insert the lock nut deep inside the pole and if you attempt to remove the flat head bolt, all you will do is loosen the bolt and weaken the splice.

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