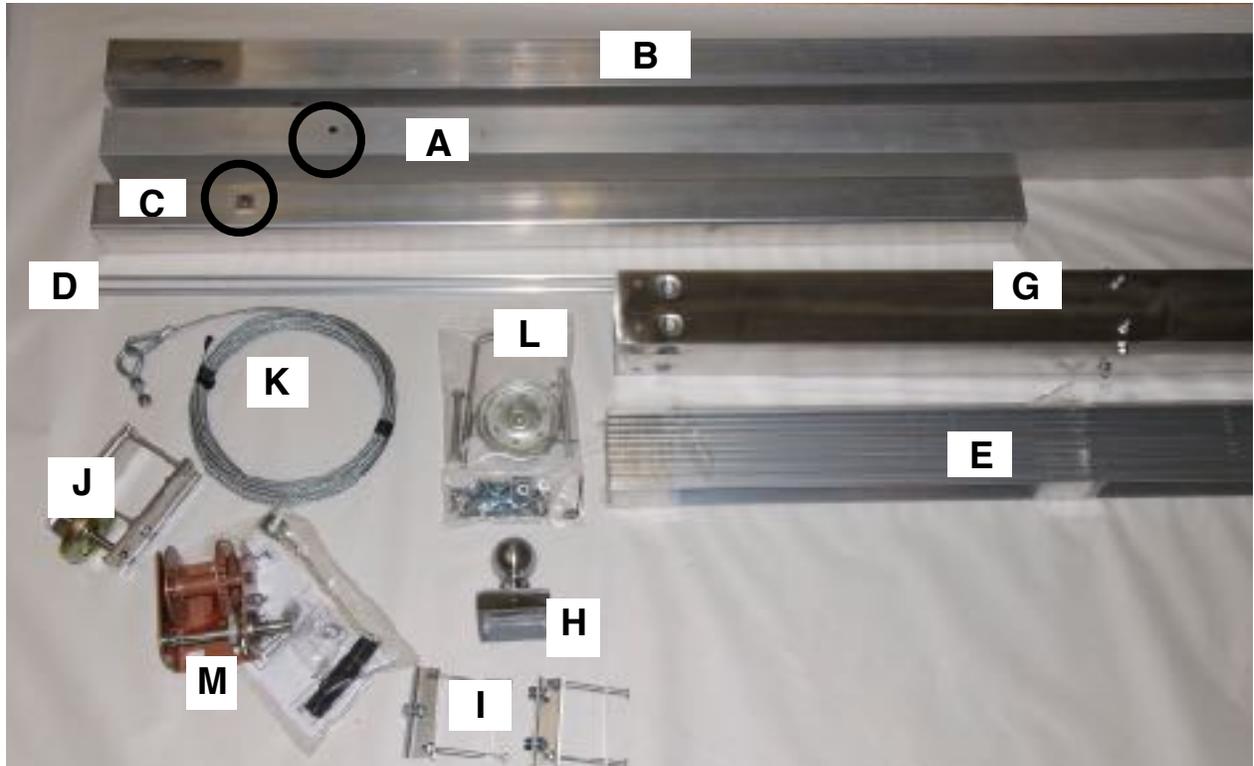


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Pole Box

- A (1) Bottom of pole (has a drilled hole 6 feet up from the bottom (safety pin hole), (see circle).
- B (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) with removable stop, see circle.
- D (2) Aluminum top perch rods 72".

Hub Box

- E (12) Aluminum angle arms. One of the arms has a $\frac{3}{8}$ " hole which is where your eyebolt is attached
- G (1) Hub (aluminum) with inserted nylon glide buttons.
- H (1) Aluminum ball cap, polished.
- I (2) Winch mounting brackets (pre assembled with bolts and nuts).
- J (1) 3 inch cable guide (pre assembled bracket, pulley and bolts with nuts)
- K (1) 7 x 19 x 3/16" stainless cable 34' with attached eyebolt and nut.
- M (1) Brake Winch with it's own hardware bag

Hardware Bag

- L (16) 5/16 x 3/4" hex cap stainless bolts, and (16) 5/16 whiz flange nuts, stainless.
 - (1) 4 inch pulley with $\frac{3}{8}$ " x 3- $\frac{3}{4}$ " bolt and $\frac{3}{8}$ " lock nut.
 - (4) 10-24 x $\frac{3}{8}$ " SS set screws.
 - (1) Stop pin with 2 attached hitch pins.
 - (1) Safety bolt with stainless steel hitch pin.

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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 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.



Step 3) Remove the stop plate from your ground stake using a 7/16" wrench and discard the bolt and stop block. (This is used for shipping only).



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

Step 5) Empty contents of the Ready Mix into an old wheel barrow. *Mix and handle the concrete according to the directions on the bag.*

Step 6) Place about 4 inches of gravel into the hole.



Step 7) Fill your newly dug hole with concrete, right up to the top of your hole.

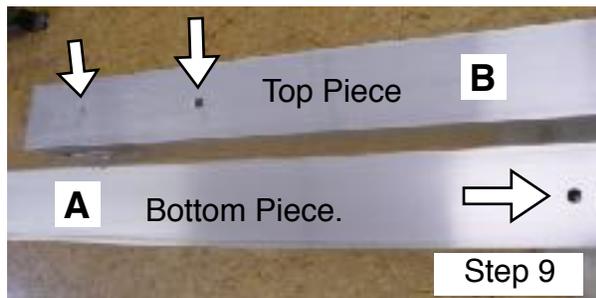


Step 8) Holding your ground stake vertically over the cement insert your aluminum ground stake into the concrete by pushing downward and pulling upward in a firm and steady motion. It does not matter which end of the ground stake you insert into the ground as you removed the stop plate in step 3. Stop 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 9) Assemble the pole. Take your bottom section (A) and lay over an upturned 5 gallon bucket or similar object. Lay the top pole piece (B) next to it. Rotate the pole till you see 1 hole fac-



ing 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.

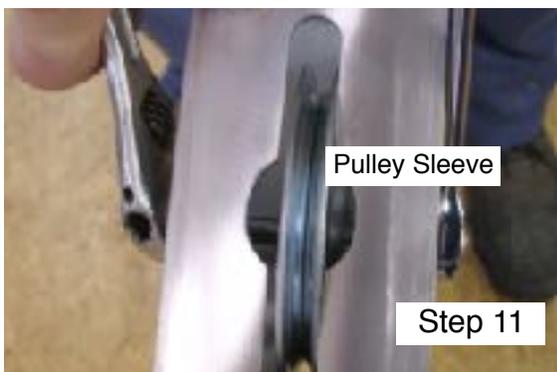
Step 10) You need to insert all the bolts into the hub. You will need your (16) 5/16 x 3/4" bolts and 16 stainless steel whiz nuts (L). Insert the bolt from the inside of the hub and thread the whiz nut on. Do not tighten. Do this at all 16 of the holes. When done slide the hub over the pole. **Note,** The center section of bolts have been pre-inserted, and it does not matter which end of the hub faces the the top of the pole.



Step 11) Rotate the pole with hub on till you see a wide notch with a half circle to each side near the top of pole. This is the pulley slot. You will

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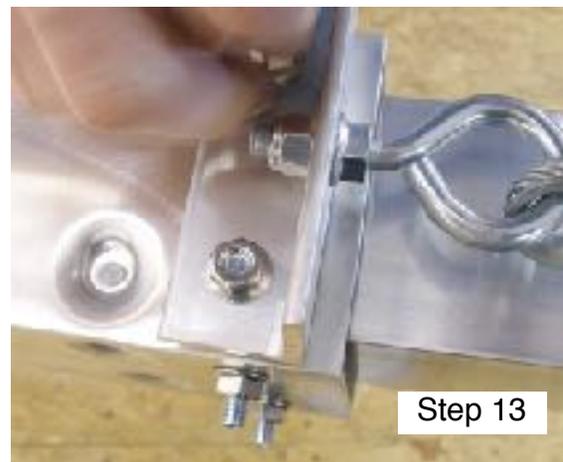
need your 4 inch pulley, bolt and lock nut (L). Insert the pulley into the slot and hold it there while you take the bolt and insert the bolt into the hole, through the pulley and out the opposite side of the pole. Place lock nut on and tighten using 2 9/16" wrenches (one to hold bolt the other to tighten).



Step 12) Arm/eyebolt attachment. Find your arm that has the eyebolt hole (E) in it and your cable that has the eyebolt attached to it (K). Remove the lock nut from the end of the eyebolt. Insert eyebolt into the hole, thread lock nut back on till it meets the angle, and tighten using your 9/16" socket wrench. Orient the eyebolt so that it is parallel to the arm.



Step 13) Your pole with hub and pulley are laying over your bucket with the pulley sleeve visible. You will want to mount the arm you just attached your eyebolt with cable on to the hub (G). Remove the whiz nuts on the upper tier of the hub directly under the pulley assembly you just did in Step 10. Do this by using a 1/2" open end wrench and placing it inside the hub to the the back side of the bolt while you remove the whiz nuts. Do this for both whiz nuts. (Due to the sheer size of this unit it would be very helpful to have a pair of extra hands to hold the arm while you assemble the unit.) Take the arm with the attached eyebolt and cable and place the arm over the protruding bolts. (Photo Step 13). Thread the whiz nuts back on.



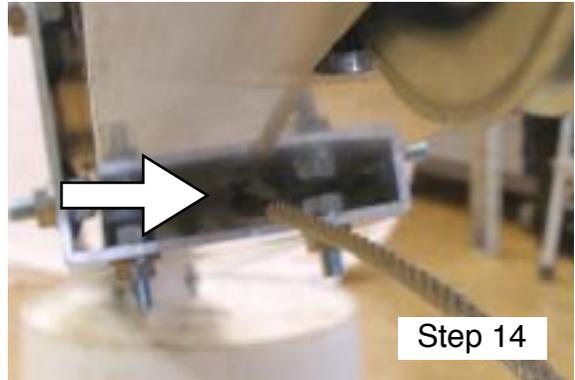
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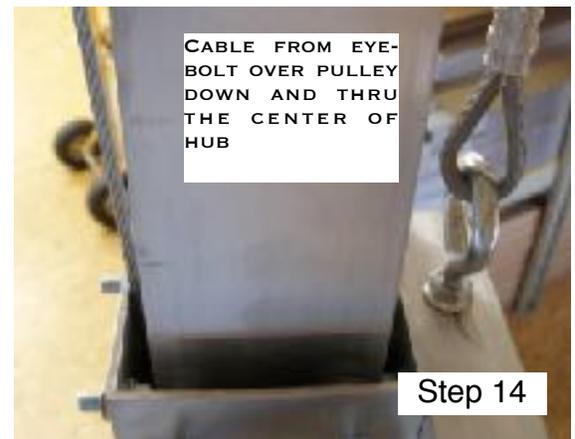
Step 13 C

Using a speed square you will want to square the arm to the hub, (Photo Step 13 C) then using your 1/2" socket wrench tighten the whiz nuts. You will need the 1/2" wrench to hold the bolt from inside the hub (as shown in Step 13 photo) while tightening the whiz nut.

Step 14) Find the end of the cable and running the cable upward towards the pulley sleeve insert the cable at the top and pull all the cable thru. Have your helper hold the pole up a few feet off the upturned 5 gallon bucket. Retrieve the end of the cable and slide 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 bolts pull it out and do it again.

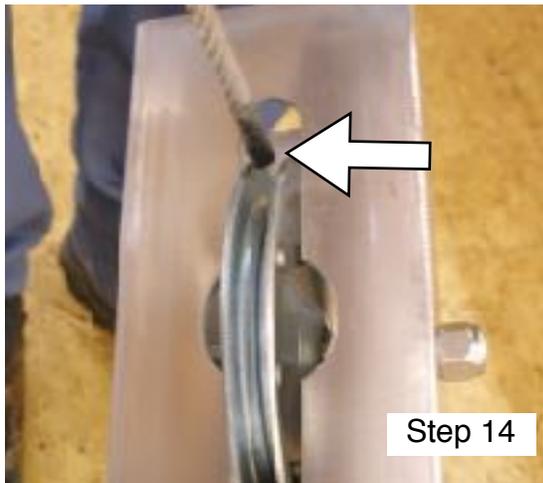


Step 14



Step 14

Step 15) Insert the stop pin (L). 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 14



Step 15

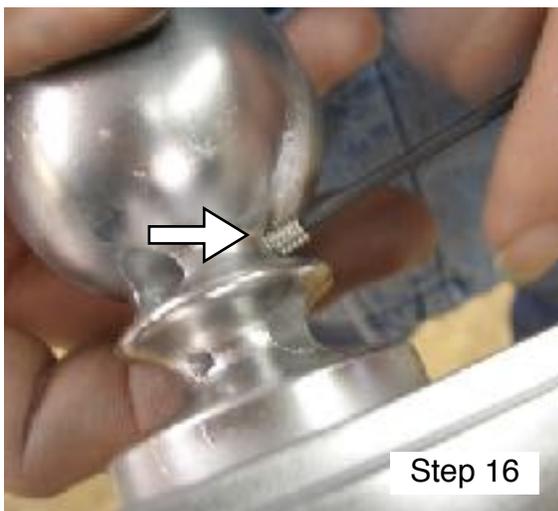


Step 14

Step 16) Ball top (H) and top perch rods(D). Get your 4 set screws from the hardware bag (L). Use 2 of the set screws to hold the top perches and the other 2 will be used to hold the ball top onto the pole. Insert the lower top perch rod (D) first

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into the ball top. Find the center at 36" and tighten set screw. Repeat for the upper top perch

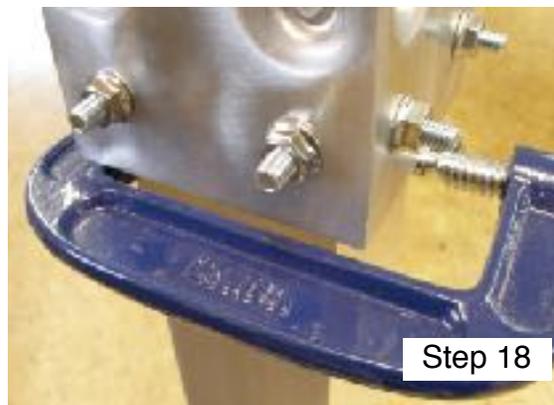


Step 17) Place the ball cap on the top of your pole. You may need to use a rubber mallet to gently tap the ball top so that it is fully seated onto the top of the pole. Use your last 2 set screws (L) and insert into the drilled-tapped holes and tighten the top onto your pole.



Step 18) 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 attach the remainder of the arms.

Step 19) Working in a clock wise fashion from the first angle arm, remove the next pair of whiz nuts. Remember to use your your 1/2" open end wrench on the inside of the hub holding the bolt while you remove the whiz nuts. Have your helper place the end of the arm that has holes that are not chamfered over the whiz nuts, while your thread the



whiz nuts back on, and tighten. Remember to check for square!

Step 20) Repeat till you have all the upper tier arms attached, and then proceed to the middle tier. Middle tier has the bolts inserted for your you. You may need to enlarge the mounting holes using a 11/32 drill bit. Do this only if you feel that the bolts feel snug over the mounting holes. Complete the hub by attaching the lowest level of angle arms.

Step 21) Get your brake winch (M) and the assembled winch mounting hardware kits (I). Remove the bolt on the bracket 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, 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 21 A, B, and C. You want your brackets to have the open side face towards the ground as seen in the photos 21D.

Step 22) Assembling the winch 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 at your de-

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sired height while you attach the back plates on the back side of pole and tighten whiz nuts. See



Step 21 A



Step 21 B

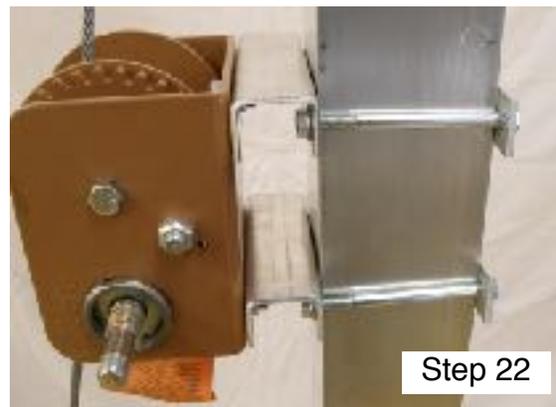


Step 21 C



WINCH BRACKETS ARE DESIGNED TO BE USED ONLY WITH DLB 350A BRAKE WINCH OR DL 350 WINCH.

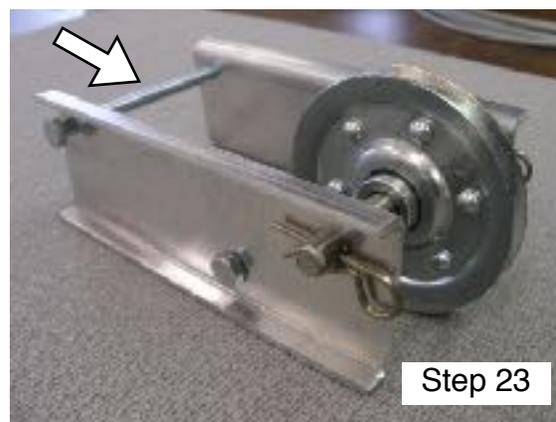
Step 21 D



Step 22

photo Step 22.

Step 23) Approximately 3 inches above the winch you will want to place the 3 inch cable guide (J). The 3 inch cable guide has been completely pre-assembled. Pull the entire assembly apart. It should look like the photo step 23. 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. 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. Once you have attached the cable to the winch you can remove the c clamp.



Step 23

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Step 23



Step 23

Step 24) 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 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 stop nut is horizontal to the hole and when you pull on it

wont come back out thru the oval hole. Attach the handle of the winch following the instructions provided with the brake winch. Once you have attached the cable to the winch you can remove the c clamp.



Step 24



Step 24

DO NOT raise your rack with out 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 pin hole insert the safety pin (L) 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. Periodically check that all bolts and nuts holding the arms on to the hub, and the bolts and nuts holding your winch are nice and snug..

How to care for your rack.

Due to the sheer size and design of this unit, you may wish to leave it up year round. It is recommended that you wax your pole prior to installation, using your favorite 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 an optional EZ Off pole guard. Pole Guards help to deter snakes, raccoons or feral cats from raiding your gourds.

Severe weather forecasted? Lower your hub section a minimum of 2 feet. Best part, the martins wont mind a bit.