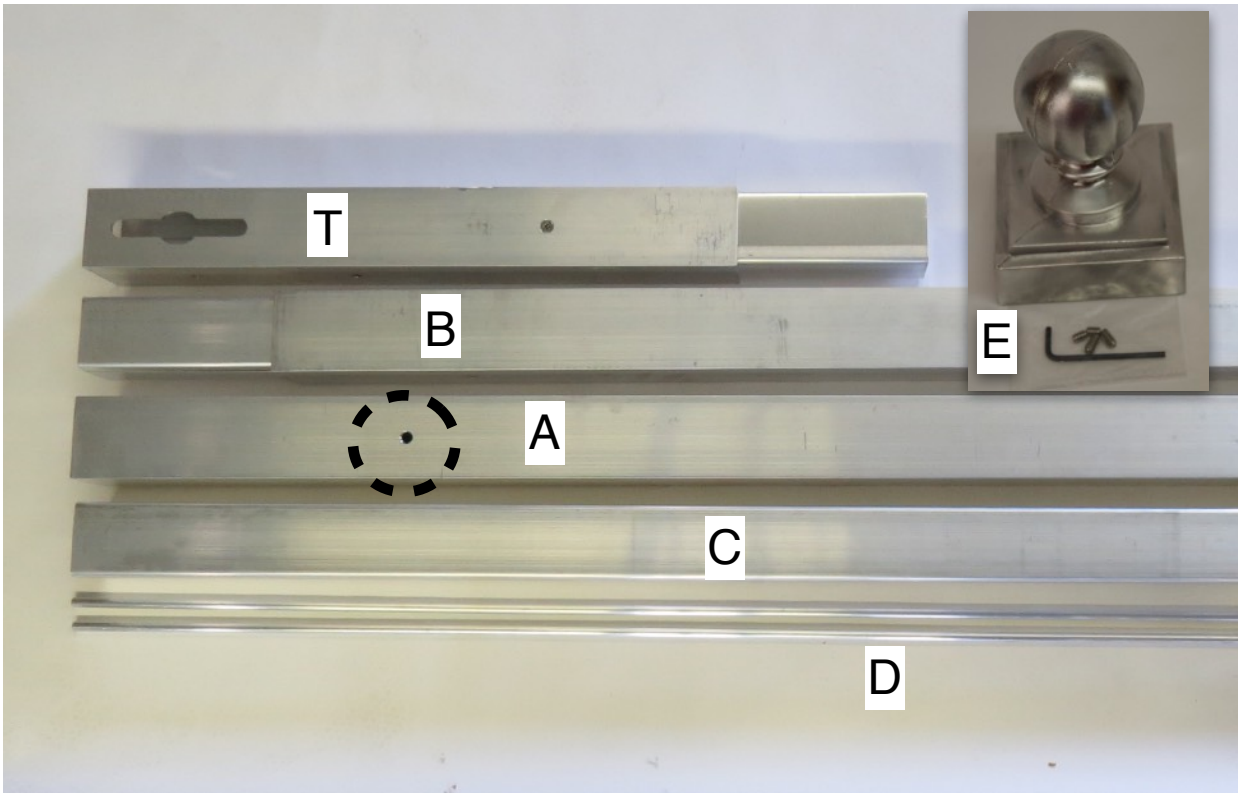
Assembly of Aluminum T-14 Pole with Mounting Kit and T-14 House Mount



AL-Pole Parts List

Pole

A (1) Bottom of pole (has a drilled hole 6-feet up from the bottom, see circle)

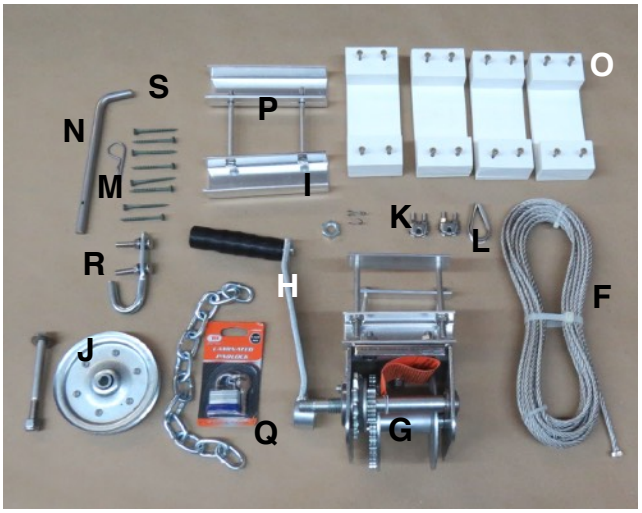
B (1) Center of pole one end square cut and an aluminum splice at opposite end)

T (1) Top of Pole (One end has the slot for the pulley at top, shown, opposite has splice)

C (1) 48” heavy duty aluminum ground stake with removable stop

D (2) Aluminum top perch rods 72” long

E (1) Ball top with 4, ¼-20 x ¾” stainless steel set screws and Allen wrench taped inside of ball top



Mounting Kit #ALMK-B

F Cable
G Winch (Brake Winch Shown)
H Winch Handle
I Winch Spring and Nut
J 4” Pulley with bolts, nut and washers
K (2) Cable clamps
L Cable thimble
M Hitch Pin
N Safety Bolt
O (4) Slider blocks
P House Bracket
Q Lock with chain
R Tarpaulin Hook with hardware
S (8) Wood Screws

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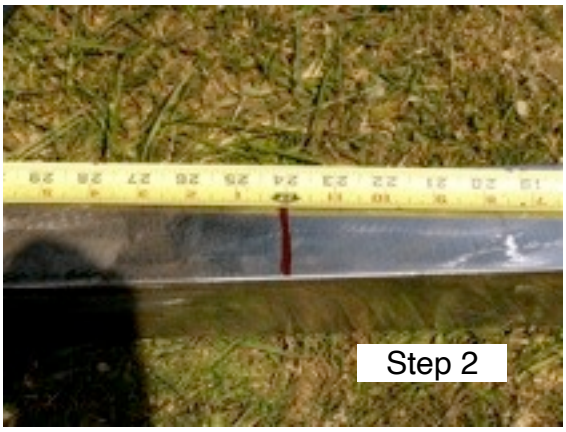
The installation of a ground stake is as vital as the foundation of your home. Both need to be done correctly in order to support the housing.

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 at least 4 bags of Ready to Use Concrete Mix, 80 pounds each.

Step 4) Empty contents of the Ready Mix into a 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. 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 plumb on two sides of the stake. Let your cement harden at least 2 days before you continue with the installation.

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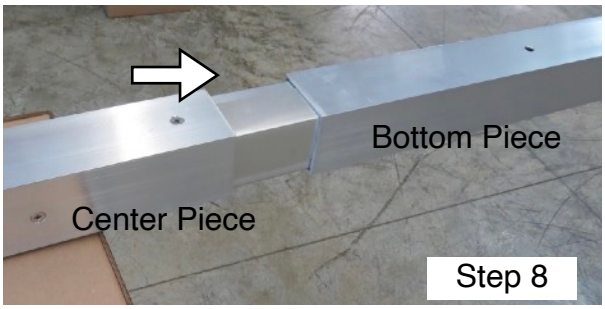
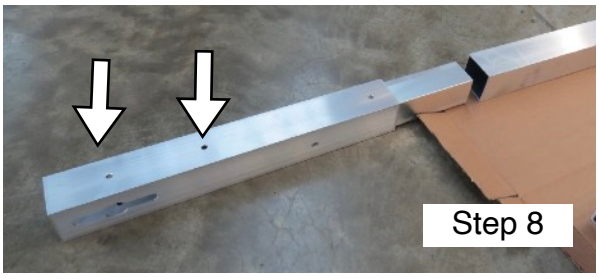
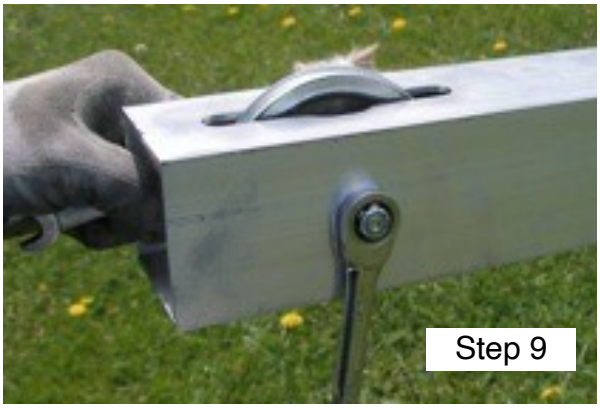
Step 8) Assembly of the 3-piece pole. Start by getting your bottom section (A). It is 84" overall and has 2 square cut ends. Then get your center section (B). You are inserting the center piece into the bottom piece. Make sure your safety bolt hole, which is 6' up from the bottom, is the end to which 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) We will now be using parts that are found in the Mounting Kit box. Please note that for this instruction we are using a Brake Winch. Mounting Kits have options that include a Standard Winch as well as a Worm Gear Winch. No matter which winch you have chosen, they will all mount the same. We will need your 4" pulley (J) with bolt washers and lock nut (all preassembled for you). Remove the lock nut and pull the bolt from pulley, make note of where the washers are. Insert the pulley into the slot and while holding it in place, insert the bolt with washer into the hole on the side of the pole, thru the pulley and out the opposite hole in the pole. Place your washer on and thread the lock nut on. Tighten using two 9/16 wrenches. One to hold the bolt head the other to tighten the nut. Make sure the nut is tight to the pole, but don't over tighten it. Your pulley should freely spin on the bolt.



Step 10) Lets turn our attention to the ball top. You will need your ball top (E) your two top perch rods (D) and your four 1/4-20 x ¾" set screws with Allen wrench (E) which have been taped inside your ball top. Begin by threading in two of the set screws that will hold the top perch rods. Insert the set screw enough that it will stay in place, but not too deep that it will interfere with the rod insertion into the drilled hole. Next we will place the ball top on to the top of the pole (above the pulley). Seat the ball top and with the remaining two set screws (E) insert the screw into the drilled and tapped hole, use you Allen wrench and tighten.

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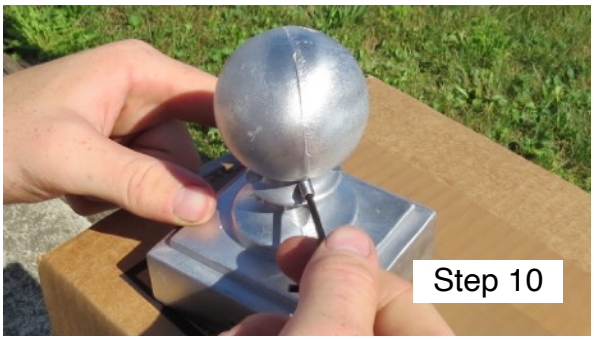
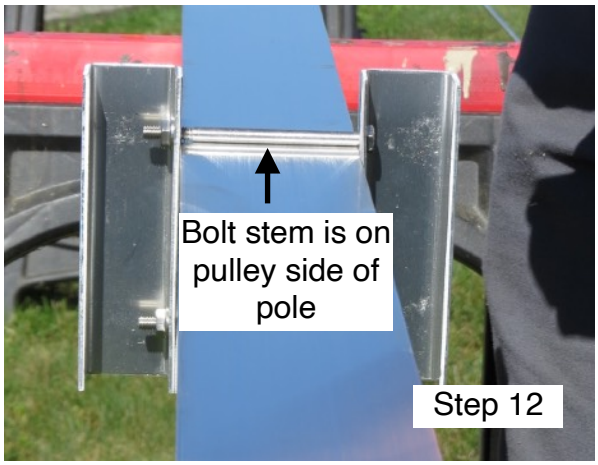
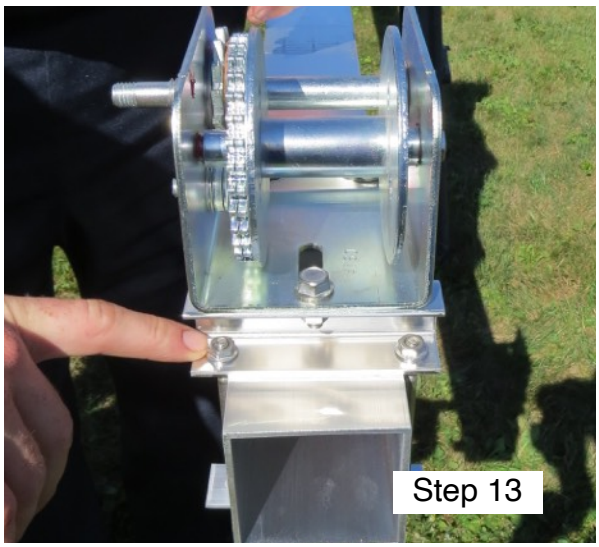


Step 11) Measure the top perches and find center and mark. Insert the lower top perch rod first into the ball top. Find your center mark and then tighten set screw using the provided Allen wrench. Repeat for the upper top perch.

Step 12) Begin by rotating your pole ¼ turn. You should see the bolt head or nut that was inserted thru the pulley facing upwards. It's now time to install the house bracket (P). The house bracket has been assembled for you. Loosen the nuts so that you can open the bracket enough to slip over the bottom of the pole. Measure from the bottom of the pole upward to 36" and mark. Slide your bracket to the mark and using 7/16" wrench, to tighten the bolts, place your wrench on the bolt head instead of the nut. The reason why is that these are self-gripping nuts. Also check for level using a square.



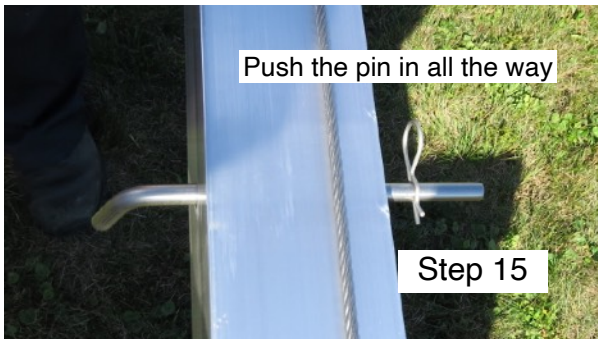
Step 13) We are next going to install the winch. The winch needs to be on the same side as the pulley so rotate your pole ¼ turn as seen in Step 12 photo. Measure from your bottom of the pole up 11-12" and mark with a pencil. Next get your winch with assembled brackets (G). Loosen the nuts on both the upper and lower winch brackets back plate so that the opening will be large enough that you can slip it on to your pole. Do



just that orienting the winch itself so that is facing upwards on the pole, the winch handle will be on the upper left side, and in line with your pulley. Using your 7/16" wrench tighten both the upper and lower bolt heads at the bracket. Check for square.

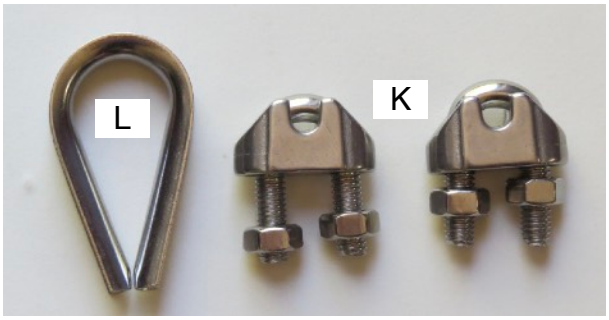
Step 14) Now you will install the winch handle. Place the handle (H) onto the drive shaft. There are threads on the shaft, so twirl the handle until it stops. Get the spring (I) place it on the shaft, then the nut (I). Tighten the nut. Please note if you have a worm gear winch there is no handle.

Step 15) From the mounting kit box get the Safety Pin (N) and remove the hitch pin (M) that is in place by grasping the large rounded loop and pull. Insert the hitch pin into the hole that is in your lower pole section (A) about 6 feet from the ground up. Replace the hitch pin and push the pin all the way thru so that the curved part of hitch pin, where you grasped it is in all the way.

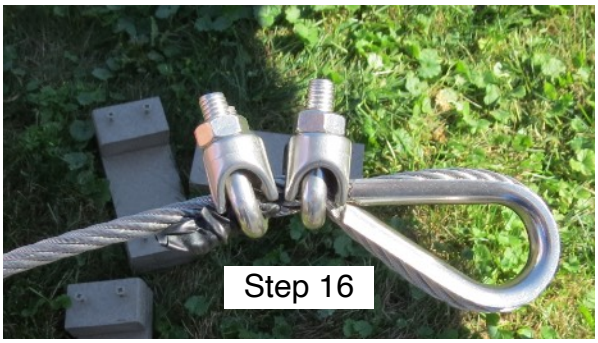


This will keep your safety pin from becoming dislodged during a later step.

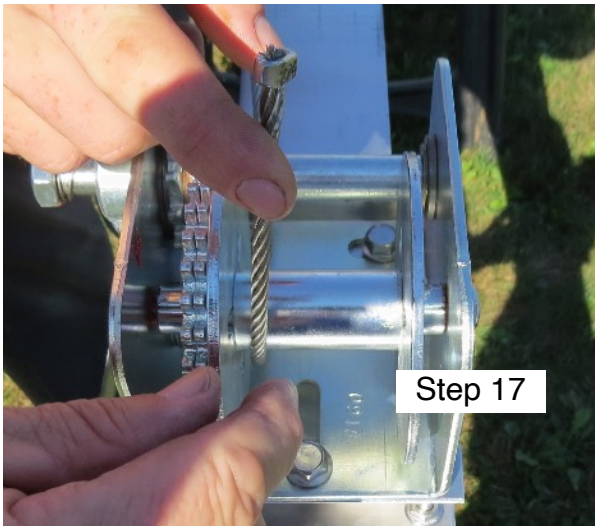
Step 16) We will now be installing the cable (F). For shipping purposes it has been banded, cut the bands off, and lay your cable out on the ground. Remove any kinks or twists. One end of the cable has a stop sleeve compressed on to it. The other end is bare. Place a few wraps of electrical tape on the bare end of the cable. With your pole still showing the winch facing upwards, take the tapped end of the cable and insert it thru the pulley slot along the top of the pulley and out the back side of pole. It's okay to pull some cable thru the pulley so you have some to work with. You will need from the hardware bag 1 cable thimble and 2 cable clamps.

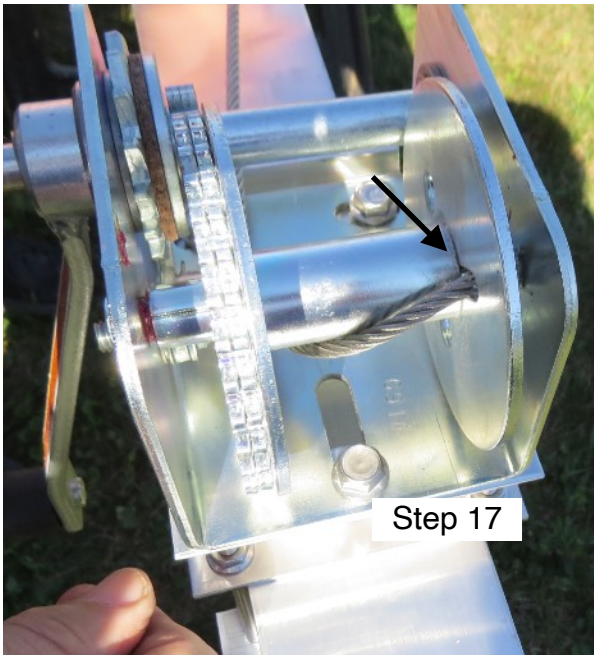


Wrap the tapped end of the cable around the thimble (L) leaving a leg of about three inches. It would be much easier if you had a helper at this point. While one person is holding the cable wrapped around the thimble the other should get one of the cable clamps (K) and remove the nuts from it. Separate the 2 halves. Place the u-shaped piece over the cable, just below where the cable thimble is, then slip the bottom piece on to the u shape, and align the upper and lower halves of the cable and then thread on the nuts and tighten using a #10 metric wrench or use a crescent wrench. Once tightened, place the second cable clamp just below the first and repeat. Please be sure everything is nice and tight.

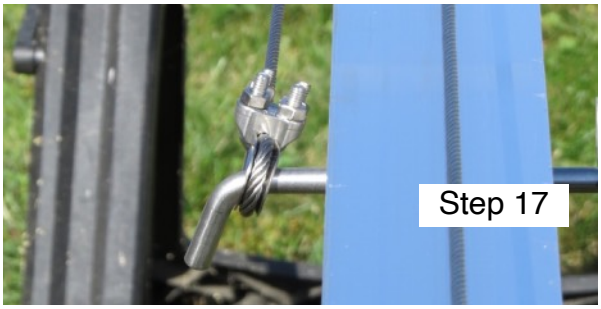


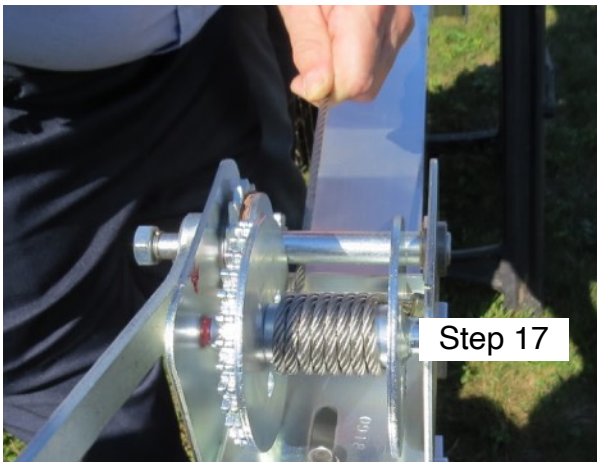
Step 17) Run the cable with the cable stop on it down the pole towards your installed winch. Rotate the winch drum until you see a slot on the opposite side of the handle. This is where you will need to insert the cable stop. Using the photos as a guide, notice how the cable runs to the back side of the winch and then you bring it up and over the drum. Then insert the stop into the slotted hole. Keep tension on the cable.





Take the end of the cable where you have your thimble and clamps installed and place it on the hooked end of your safety pin. You will now be removing the slack of the cable by turning your winch handle. Keep tension on your cable and turn the winch handle and wrap the cable around the drum till all the slack is gone and you have a little tension on the cable because it has been looped on to safety pin. Please be sure the hitch pin is fully seated into the safety bolt hole. This will keep the pin in place while you install the pole over the ground stake.





Step 18) You will now be installing the pole over the ground stake. This is best accomplished with two adults. Before you stand the pole up, give some thought as to the orientation of winch. Carry the assembled pole to the ground stake and stand the pole up next to the stake. Pick the pole up and set it on the edge of the ground stake. See Step 18 photo on the next page. Working with your helper, maneuver the pole till it is ready to slide down the stake. Sometimes aluminum can bind. By placing some oil or spraying with WD-40 on the stake, will aid in the pole sliding down easier The pole is now fully seated over the ground stake and sitting on your concrete base.

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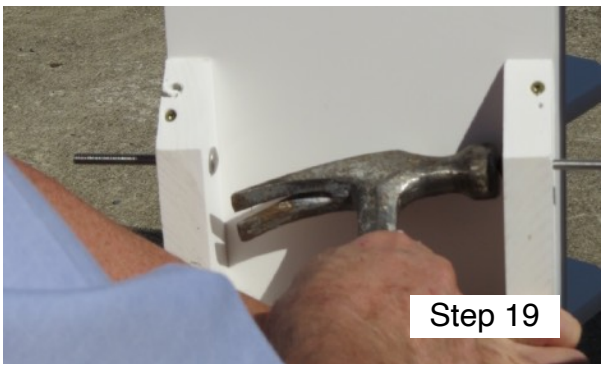
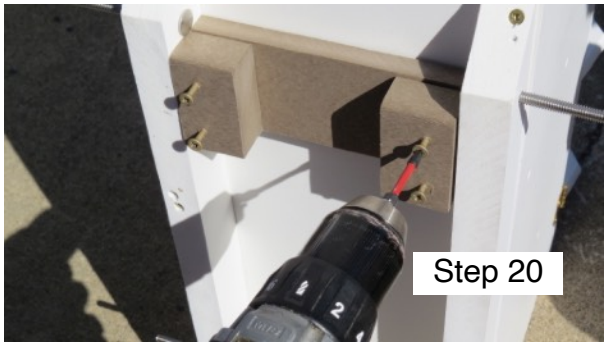
Step 19) It is time to install the houses. Begin by removing the houses from their boxes (one section of house per box). One of the house sections will have a hardware bag containing 8 carriage bolts and 8 wing nuts. Begin by getting 4 of the carriage bolts On the back side of each of the four unit houses you will see a rail to the left and right with holes at the top and bottom of the rails. Insert a carriage bolt so the flat head of the carriage bolt is inside the rail, repeat for all 4 holes. Take a hammer and gently tap the carriage head to be sure they are fully seated and tight against the rail.





Step 20) Now you will need two of your slider blocks (O) (found in the mounting kit). Note that each block has screws installed in them. Place one of the slider blocks underneath the upper carriage bolts and using your hammer tap the slider block so that its flush with the back of the house. Now use your hammer and tap the bottom of the block, upwards so that you move the block to where the edge of the block is pushing on the carriage bolt head. Partly covering these bolt heads will help later in the installation as it will keep the bolts from moving. Using you screw driver install the screws. Repeat at the lower section, and do the other 4-section.

Step 21) In the mounting kits hardware bag there are 8 wood screws (S). You will take a screw and insert the screw from outside the rail of the four-house section, thru the slider block. Insert one screw to the left and the right of all 4 slider blocks. The back of your two 4-compartment sections should look like this. See photo step 21 next page.

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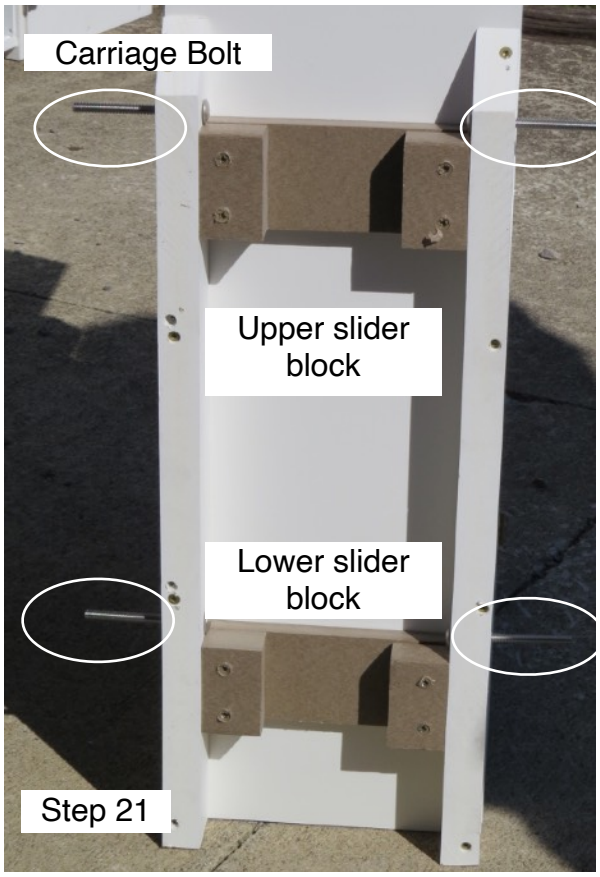
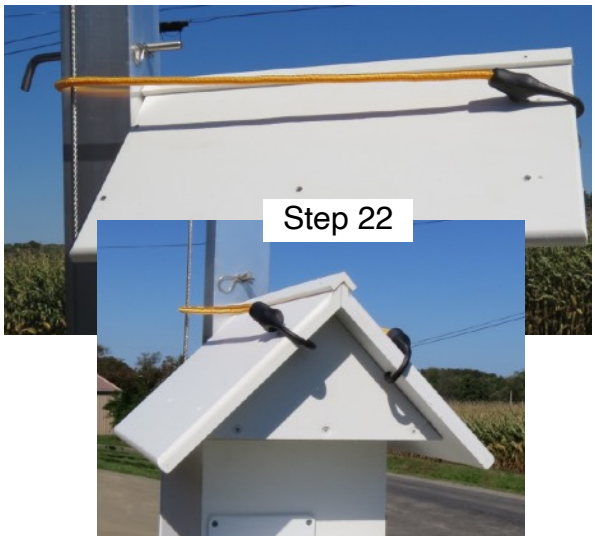
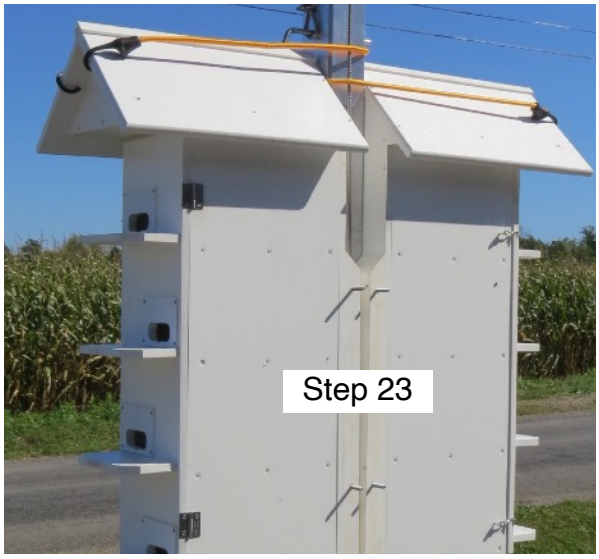


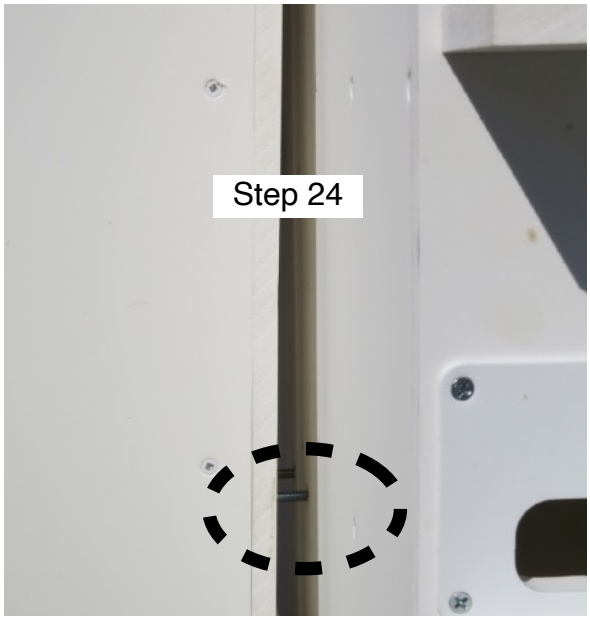
Step 22) Its now time to mount the house sections. You will need a bungee cord approximately 28" long. Using one of the completed four-sections place the section so that it sits on the house bracket and push the house in towards the pole. Have your helper attach one bungee hook at the roof on the right side, wrap the cord around the pole and attach the other hook to the other side of the roof. See photo Step 22.



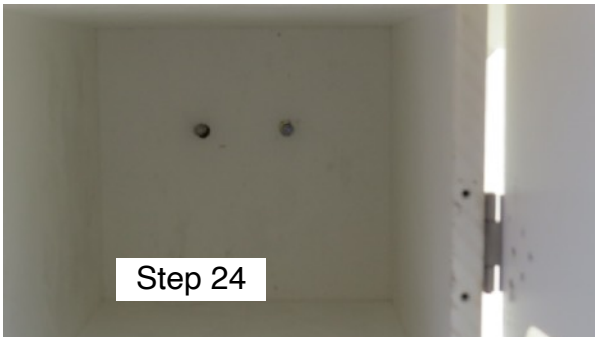
Step 23) We will now attach the second 4-compartment section to the opposite one we just did. Place it on the house bracket, push the house into the pole, and wrap your bungee cord around the house hooking it in place at the roof.



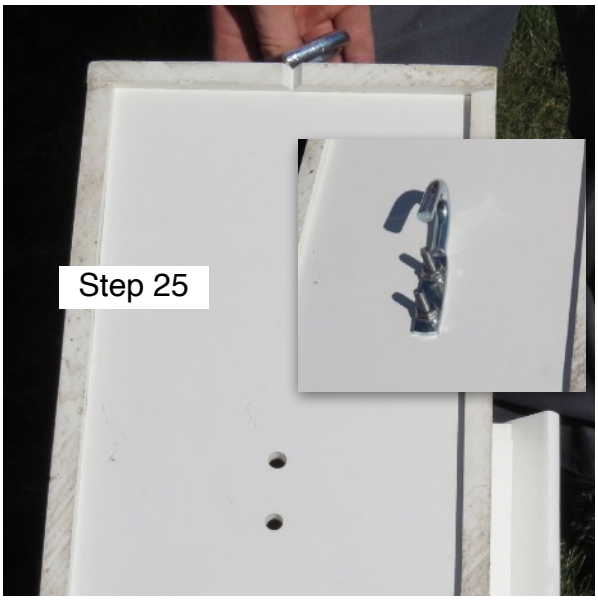
Step 24) Notice in Step 23 photo you can see the carriage bolts extending out of the houses. The stems of the carriage bolt is what you will align with the holes found on the back side of the three section houses. Begin by finding the 3-compartment section that DOES NOT have a set of holes drilled into the bottom floor. You will mount this house on the **SAME SIDE AS YOUR WINCH**. Open the front door of the house and lift it up, and



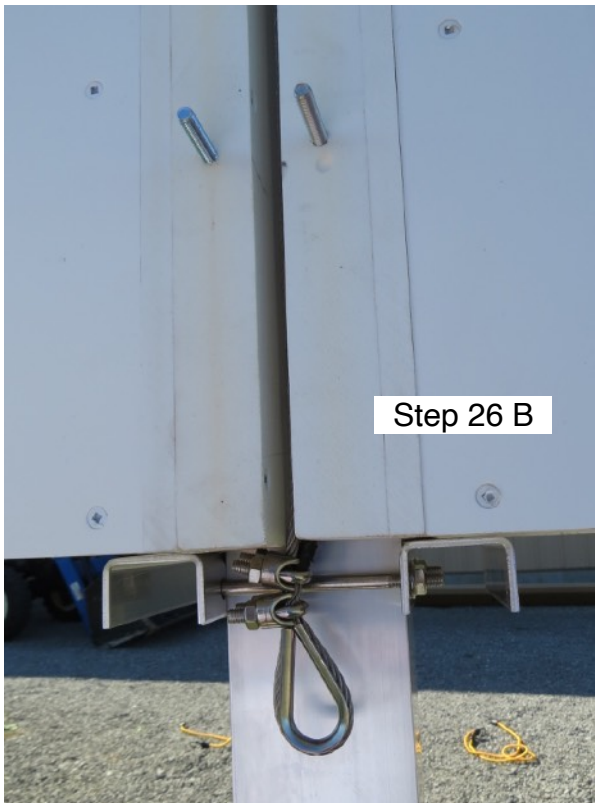
while watching, insert the carriage bolt stems through the drilled holes in the backside of the housing. Once you have the house on the bolt stems you will need 4 of the wing nuts that were in your T-14 house hardware bag. Install the wing nuts and tighten.



Step 25) It is now time for the last three house section, and this time you want to begin by flipping the house upside down. You will get your tarpaulin hook (R) which can be found in the mounting kits hardware bag. Unlock and open the door. Remove the nuts from the bolts that are attached to the tarpaulin hook. Place the hook so the hook is facing the back of the house, towards a notch (which is for the cable). Align the holes in the house to the hook, insert the bolts from inside the house, through the hook and install the nut, and repeat for the other hole. Tighten the nuts using a 7/16" wrench.

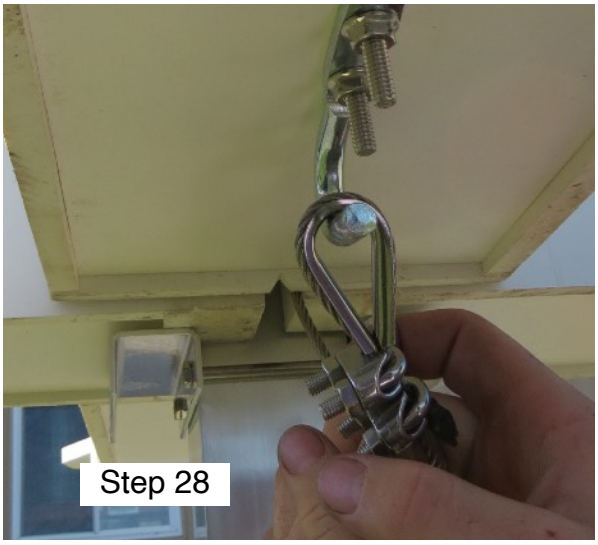


Step 26) Before you can mount the house you will need to grasp the cable and while your helping is reversing the winch, you will be pulling down on the cable. You will know you have enough slack once you can place your cable between the 4-compartment section gap, below the house, between the house brackets see photo Step 26 B



Step 27) Mount the last three-section house just like you did in step 24, and don't forget to tighten the wing nuts.

Step 28) We need to attach the looped end of the cable onto the tarpaulin hook. Again, have your helper reverse the brake winch handle allowing you to grasp the cable and pull it towards the hook. Once you have looped the oval loop over the tarpaulin hook, and your fingers are free, have the helper raise the T-14 house by cranking the winch clockwise. Go slowly, watch that your cable is in the notch at the back the house.



If everything looks good, close and lock the doors, remove the bungee cords and run your house up the pole. Place your safety Pin (N) back into the hole on the pole, and insert the hitch pin.

How to lock the winch. The last item in the mounting kit hardware box is a lock with a piece of chain (Q). Remove the packing from the lock, and in order to open the lock you will need to remove one of the keys on the key ring. Open the lock. Take the chain wrap it so that it goes around the winch handle behind the cable, and then with the hasp of the lock insert it through the chain links both ends. Close the lock.