

Cap Installation Instructions

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The stainless steel screws we provide are not as soft as brass screws, but they are softer than normal steel screws, so we strongly advise that you set these SS screws using a special cordless impact drill. They will drive these screws much better than a standard drill with less damage to the Phillips slot in the head. Even better than even a hammer drill. Trust me on this one. If you have not yet bought yourself an impact driver, do so. It will be one of your best tool investments. Makita makes a nice light weight BL 144 driver with the new 18V Lithium batteries.

Opening the Crate:

To open the crate and safely remove the cap, you should have a large garbage bag and a #2 Phillips tip in a drill/driver. We glue and staple a thin plywood over a wood frame. Even though it may have 'TOP' designation, it should be safe to turn it over in all direction, as the cap should be securely suspended inside the crate. We just wrote 'TOP' on the outside so it is hopefully upright while in transit and bouncing around on the road.

1. Remove the yellow screws along the bottom sides to lift the outer wood shell for inspection.
2. You will find a zip-lock bag of screws and new #3 Phillips tip inside. Go ahead and remove them and set them aside where they won't get lost. There should be a couple extra stainless steel screws in the bag incase some of the screws get dropped and lost or the Phillips slot is damaged during installation. Use the crate base to support the cap safely until you are ready to do the installation.
3. When you are ready to do the cap installation it is recommended to wear clean gloves when handling the copper cap. It will help from getting finger print oils on the copper, which will tarnish sooner than the rest of it's surface making it look spotty. It will also help you from the possibility of getting cut from any sharp edges of the copper.
4. When finished, dispose of the crate wood as you see fit. There are screws in the corners of the frame and it is glued together, but it should crack apart without too much trouble. Unscrew the rest of the wood frame apart if you want and set the boards aside. You could use a few of the crate frame boards and the deck screws to make blocks that screw down to the roof and then screw the cap to those boards to raise it up off the shingles and give the bottom edges some visual dimension. This can be a great way to add a hidden roof vent there at the peak as well. It will also help to give you a nice solid flat surface to attach the cap onto, so there is less irregular bulges or indentations from the screws after being tightened down. If you cut the bottom edge of the boards at a 45-degree angle and paint them dark brown or even black, that will help make them from being seen under the cap from the ground.

Note: We place some tape inside the cap over the rivets & caulk, so you should not remove it.

Detailed Installation Instructions w/o hidden roof vent:

It is not very complicated, but here are some suggestions.

1. Accessing the roof peak may be difficult and dangerous depending on how steep your roof is, so one thing that can greatly help you (or the installer) up there is to have some foam cushion pads to place on the roof. Just like couch cushions without the cloth cover, or camping pad. Just raw foam cushion. Just 2" to 3" thick is plenty. It will also help keep the roofing shingles from getting scuffed up. If the roof is steeper than a 12/12 pitch or a 45 degree angle this may not help and they will need to somehow remain on the ladder at all times. A rope around the roof connected to a safety harness will help for safety, but

should not be relied on for support and could damage the shingles.

2. Just before installation, you may want to add a line of foam weather stripping near the bottom edge of the cap to seal out insects from nesting inside the cap. You could add a dab of clear silicone caulk on the inside of the cap around the screw holes to help seal around the screw, but remember how this may make removal difficult when this needs reroofing later on.

3. When you are able to access the roof peak safely carefully raise the cap up there to the peak and place your copper cap on the roof top with the seams of the cap to the back side of the roof. If there is no finial/weathervane support pipe built into your cap you can use a special dial level device to compare the opposing sides to make sure it is straight, or at least have someone with a good eye for this there on the ground to direct the placement. If your cap has a finial or weathervane support pipe in it, you will need to set the cap level with the straight shaft inserted in the pipe and check that for vertical level on at least 2 different sides 90 degrees apart. The 3/4" shaft may fit too loosely to get a good reading, so you can add a ring of electrical tape on the bottom. Just enough to have it not move so much, but still slide down into the pipe. Place another stripe of tape on the shaft near the top of the pipe, so you can get a perfect reading with the level.

4. When you feel that you have the cap set in place, hold gentle pressure down on the top as you pre-drill the pilot holes with a 1/8" to 9/64" drill bit. Use the nails to hold position before drilling the next hole. That will let the screws go in easier and less likely to strip out the heads. It may shift, messing up your alignment, so have an ice pick type tool handy to re-find the hole if the cap does shift during this process. The nail should slide in and out easily with your fingers if the hole is the right size.

5. The cap will secure to the roof using the dome head #3 Phillips stainless screws and the #3 tip we provide. The stainless steel screws will not stick to a magnetized screw tip. You will lose a lot of screws that way if you try to place the screw on the tip and drive it in. Remove the nails one at a time and start the screw in the hole with your fingers before you go to drive the screw in with your drill. Turn the head of the screw clockwise looking down on it to get it started, and then use the drill to screw it to the roof.

6. When you are ready to install the weathervane set the shaft in the support pipe, and mark the shaft at the top of the pipe. You will need a good compass to set the directionals. There is a compass app on the iPhones. Lift it up a couple inches and ease the shaft back down as you tap in the copper shims to lock it in to keep the shaft from rotating freely. It does not have to be very tight. You want this to still be removable when you may want to swap out this decoration for a different one you like better. The finial should have a straight connector soldered on the bottom and it should easily slide down over the mast rod. Give it a little twist rotating it to seat it down over the pipe in the cap to make that seal.

7. Clean up your work area and safely get down off the roof and don't forget to take some digital photos to sent to me.

Hidden Roof Vent (optional):

We have stainless steel screen and prepainted and predrilled blocks we can send with the roof cap, or we can still send this kit to you if you already have the cap. Have the installer follow these instructions:

(a) Cut some 1x3s or 2x3s about 6" to 9" long with a 45-degree angle cut on the ends. Pre-drill the staggered holes for a pair of 3" deck screws for each block top and bottom with a 3/16" drill bit, so they won't crack the block. Primer and paint them dark brown or black, so they are protected, but more importantly; so they are not visible under the copper cap. Wax the top of the block, so it will not stick to

the copper.

(b) When the blocks are fully dry remove the SS screws from the cap and figure out the best place to drill the pilot holes for the SS screws in the blocks with a 1/8" drill bit. The cap will secure to the blocks using the dome head #3 Phillips stainless screws with the #3 tip provided. The stainless steel screws will not stick to a magnetized screw tip. You will lose a lot of screws that way if you try to place the screw on the tip and drive it in. Screw the SS screws into the cap in each block under the cap, and make sure they are aligned pointing to the center before tightening them. Attach the SS screen to the blocks to help keep out pests from nesting under your roof cap.

(c) Use some of the expanding Gorilla glue on the bottom of the blocks just before placing the copper roof cap on the roof peak and spritz the glue with water to activate the glue's expanding nature. Do your best to make sure the cap is centered, level, and looks balanced on all sides. If there is no finial/ weathervane support pipe built in to your cap you can use a special dial level device to compare the opposing sides to make sure it is straight. You may want direction from a person with a good eye there on the ground to see the roof cap from different angles. Wait a couple hours or so to let the glue set.

(d) When the glue is set remove the SS screws again and set the roof cap safely aside. Then you can screw the blocks securely to the roof with the 3" deck screws to be hidden under the cap.

(e) Then peel off the roofing shingles just above the blocks down to the plywood. Cut the plywood to remove, or use a 3" to 4" wide hole saw to cut vent holes. You can also cover the vent holes with some sort of screen. it should have larger holes than normal window screen, or it could become clogged with dust over the next few decades.

(f) Remount the roof cap again on the blocks. Use the nails to help find the pilot holes and hold the cap in place until you are ready to replace them with screws. Remove one nail at a time and start the screw in that hole with your fingers before you go to drive the screw in with your drill. Turn the head of the screw clockwise looking down on it to get it started in the hole. Then use the drill to screw it down to the block.

There you have your screened hidden roof vent.

If you have any questions, let me know. We would love to get your feedback on how it goes, so we can better advise clients in the future and add more photos to our web site, so our future clients can better visualize this.

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Thank you for your confidence in

*Copper-By-Design*

We appreciate your business

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