



ANT-ML

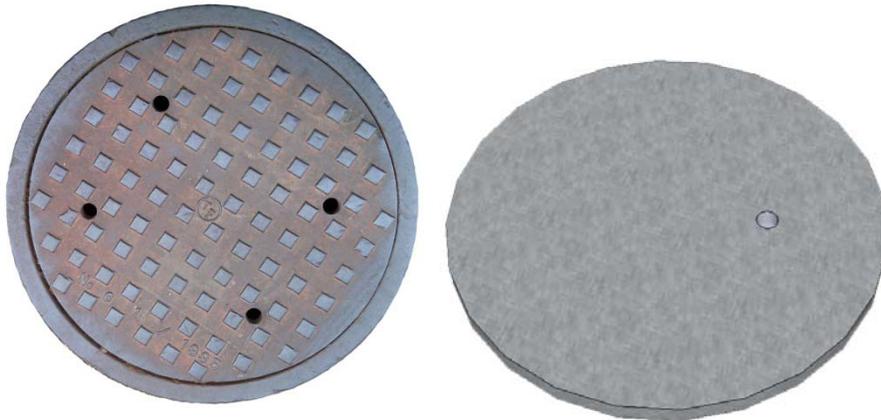
MANHOLE LID ANTENNA

Items Required (drill is optional if appropriately sized holes exist)

- ANT-ML complete antenna with 7/8" hardware
- Crescent wrench that can open to at least 1 and 5/16" wide
- Power drill with 1/2" chuck
- 1" or 1 1/4" cobalt drill bit with 1/2" shank
- 1/4" cobalt drill bit
- Cutting fluid, such as "Rapid Tap" by Relton Corporation

Preparation

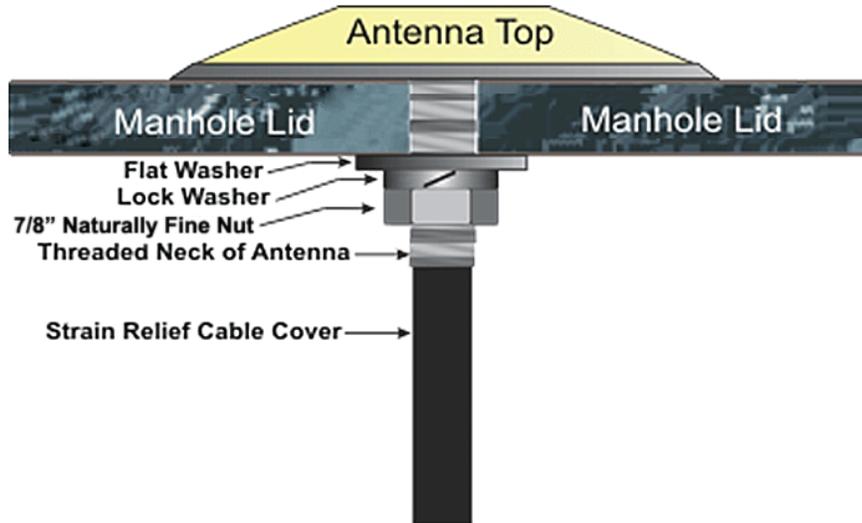
If the manhole cover does not have any holes present, choose a location where you want to attach the antenna through.



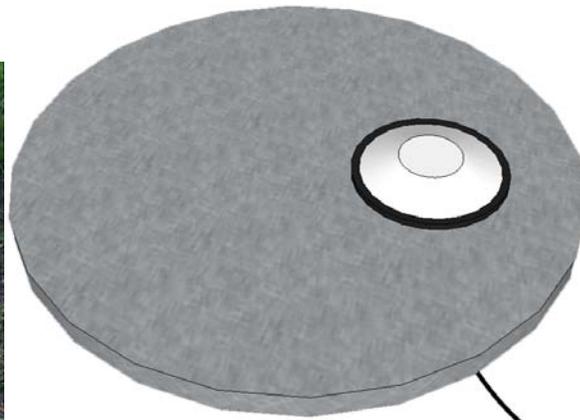
Typically, a hole will be off center like in the above illustration. First drill a pilot hole with the 1/4" drill bit and be sure to use lots of cutting fluid to aid you. Once this has been done, drill the 1" hole also making sure to use lots of fluid. The antenna should be able to fit in this hole now and you can put the rest of the hardware on and tighten the antenna to the manhole cover. Make sure the antenna is sitting flat to the manhole cover and not sitting on the weld and able to rock as this can damage the antenna. You may need to drill a larger 1 1/4" hole to accommodate for the welds if the surface is too smooth. Covers with holes as in the above left photo mount the best.



Here is a view of how the antenna and manhole cover would appear from the side. Be sure to tighten the nut well with a wrench to make sure the antenna does not loosen over time.

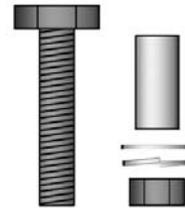
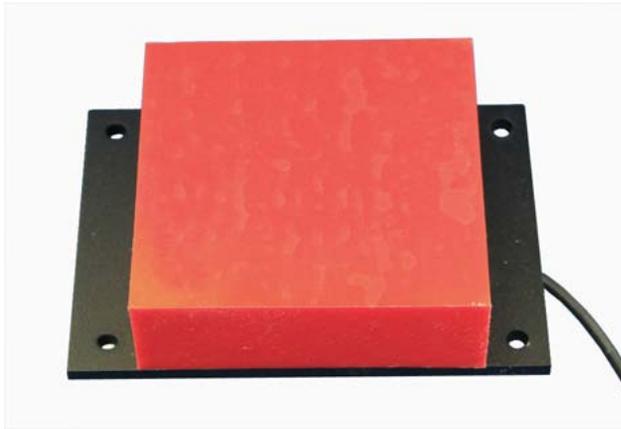


The completed unit should look like the following:





Mounting ANT-IR in Diamond Plate



By using bolts and the appropriately sized collar for the thickness of the plate the ANT-IR can be mounted underneath diamond plate. A 5" square hole must be cut out to make room for the antenna face to come through the material as well as 4 holes for the bolts.



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