

Installing a Winegard Sensor III Antenna to replace the factory installed Delta Antenna

After reading Bill Hemme's article:

“CONVERTING TO THE WINEGARD 'BATWING' SENSOR III TV ANTENNA”

http://www.bornfreervclub.org/bulletin_board/viewtopic.php?t=579

I decided to purchase and do the install myself. I purchased the **Winegard RV-3095 Sensor III** antenna at Campingworld for \$99.00, the unit was on sale so I purchased this model rather than the RV-7095. The reception is much improved, I was able to get three channels on the Delta at home and after the conversion I was able to get twelve.

I'm just going to show how I removed the Delta and installed the Bat Wing antenna, I took lots of pictures and have details on the installation. Here is a link to the Winegard site: <http://www.winegard.com/mobile/sensar.htm>

RV-3095 - this is the full Sensor III system with the Batwing antenna with built-in pre-amp, TV wall plate, RF cables, etc for an installation on an RV that currently does not have a roof mounted TV antenna.

The hardest part of this job was climbing up and down the ladder (to check the fit) and cleaning the old sealant off the roof.

This is the original Delta “rabbit ears” antenna installed by Born Free. The gray conduit going into the refrigerator vent was from another project I did last year, installing a Moto-Sat satellite dish for Dish Network.



Here is what the inside crank mechanism for the Delta looks like



Here is a picture that shows how to remove the handle using a 3/32" Hex wrench.



Set screw backed out and handle removed



Here I've removed all the screws; it was hard to break this loose from the fiberglass.



Here is a picture of the Delta antenna removed.



This shows the thickness of the gel-coat (1/4") and the plywood (3/4") the hole is 1 1/4" in diameter. It was very hard to remove this old sealant.

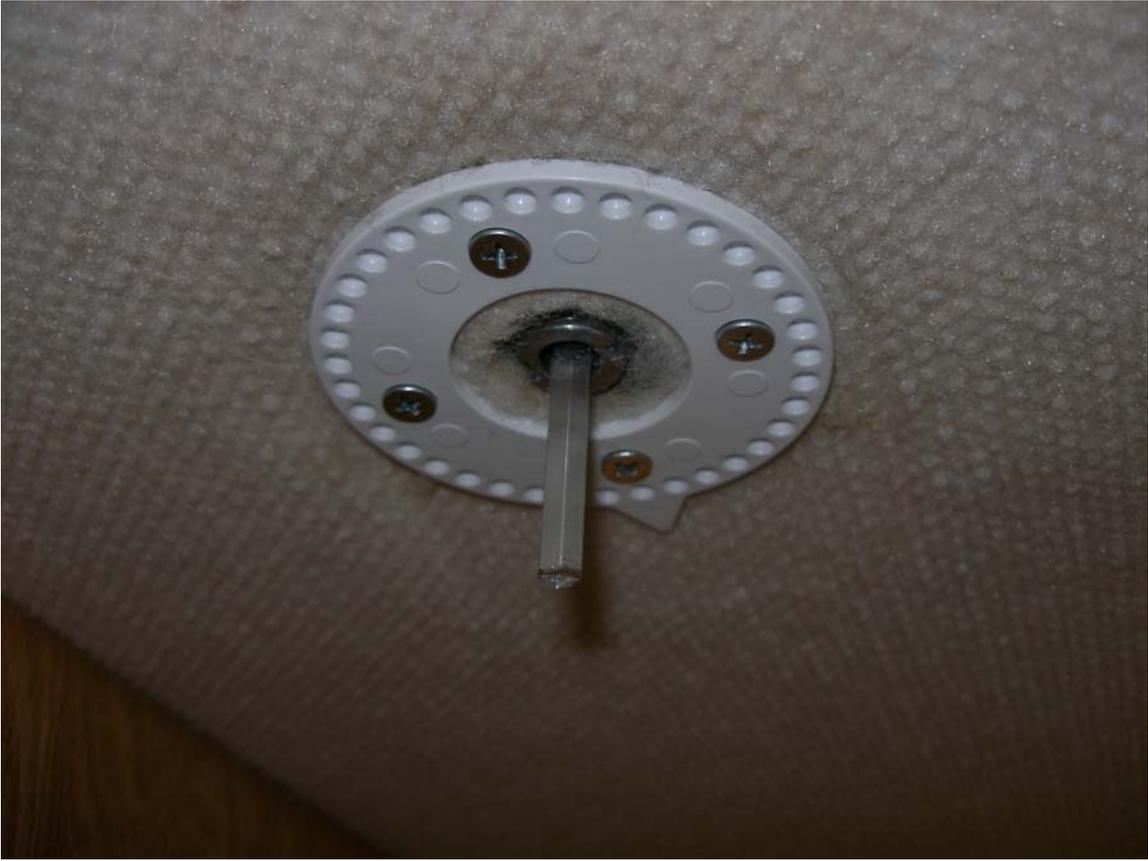
I enlarged this hole to 1 1/2" diameter so the new "Bat Wing" base plate would fit; it took about an hour with a portable drill motor and I didn't have a hole saw of the correct size.



I used a magnet to find the steel raceway/roll bar in the roof.



View of cut shaft and lower mounting plate.



I pre-drilled 3/16" holes thru the Gel-coat and used a 3/32" drill for the plywood beneath and installed (10) #10 X 3/4" Panhead stainless steel screws and washers. I also sealed the base plate with white Dicor (brand) #501-LSW sealant. <http://www.dicor.com/>



This view shows how the factory installed the original RG6 cable thru the refrigerator roof vent; the gray 1" conduit is what I used for my Moto-Sat project. I decided to re-use the original wiring.



This shows the antenna cable clamped down, I still have to remove the old “stick on” cable clamps from the roof as they are broken anyway. The grey and red connection shown is filled with Permatex (brand) Dielectric grease as are all the “F” type connectors, Winegard states this is not necessary but my experience says otherwise. I also wrapped the cable with 3M (brand) T88 electrical tape to prevent deterioration from UV.
<http://www.mpsupplies.com/3mtapesuper88.html>



This is a view of the Winegard Amplifier front and rear showing connections to cables. The MOV I installed is for nominal surge suppression on the 12VDC line and is rated at 18VDC. This is similar to the one I removed but this unit supplies 12VDC power to the antenna head via the center conductor of the RG6 cable.



This shows the new crank handle attached to the Winegard antenna.



This shows the antenna in the raised position.



This shows placement of antenna in the stowed position.



This view is from front looking back at both Winegard and Moto-Sat antennas.



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