

SAM-1 Fan Kit Installation Into
HENG'S Range Hood
Model #R0623500C
David Jeffs
June 2015

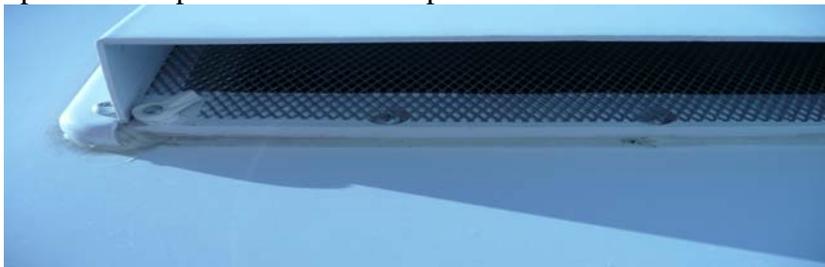
If you own an RV you probably have come to the same conclusion that I have. Everything related to an RV is plagued with a trade-off. Every manufacture and owner deal with that fine line between design, utility, function, and weight.

A few years ago my wife and I embarked on a cross country trip to the Great Lake States and the Dakota's with our first new fifth wheel. We chose a light weight trailer which was delightful to tow. The longer we "lived" in the trailer however the more we realized some design features were missing. We came home from that trip with a list of things we wanted to have in our next trailer.

Shortly after returning from that trip we purchased a 35 foot Montana Mountaineer. It answered most of the items on our list, but it was much heavier. We have had to beef up the rear suspension on our truck and we plan to install an exhaust break in the near future.

While the design and features of our new trailer addressed our concerns of the old trailer, we found short comings with the new trailer as well. We could not use the toaster without the smoke alarm going off and it was difficult to see the range top area. The kitchen area was dark so we installed LED light fixtures in the ceiling. While this helped the kitchen in general, the range top area was still dark. The fan was also very noisy and didn't seem to really function. The need to open the vent flap outside was my chore, because my wife couldn't reach the vent.

After a recent trip this summer, we got home only to find out that I had failed to secure the kitchen fan vent flap. We lost it during our return trip home. I installed a screen to replace the flap in an effort to keep hornets out of the trailer.



This happened shortly before I read an article by Bill and Jenn Gehr in the April 2015 Trailer Life magazine entitled "Overhead Overhaul". I read over that well written article with great interest. They described a relatively new product from Fabulous Operating Product's (FOP) called SAM-1. It seemed that this new kit was the answer to the short comings we had found in our new trailer.

I decided to do some more research into the SAM-1. The foot print of the SAM-1 is 12" X 9 1/2" X 4". My fan was slightly smaller at 11.5". This caused me some concern. The April article mentioned removing some tabs and the old unit would come out. My unit was installed with spot welds.



These two items caused me some concern that the kit install might not be as simple as it seemed in the Trailer Life article.

I then researched the web to see if anyone else out there had all ready done this install. I searched for any information on my vent hood which was "HENG'S R0623500C". That search revealed an article at www.foresriverforums.com. That article written by a person with a user name of "Daisy Boykin" reviled my worst fears about this install. The statement "drill out 32 spot welds" caught my eye. That word "trade-off" immediately came to mind.

I decided to pursue this a little further so I went to my local General RV dealer. The sales person at their parts department was unable to help me procure a SAM-1. He had no idea what I was looking for. I decided to contact the factory via email. Larry responded that same day within hours and gave me several options to pursue. I chose www.rvvent.com because they provided PAYPAL. I use PAYPAL when ever possible. I ordered the kit and it was shipped the next day and arrived quite quickly. I started the install the day the kit arrived. The install took me three hours, but a lot of that time included taking notes and pictures along the way.

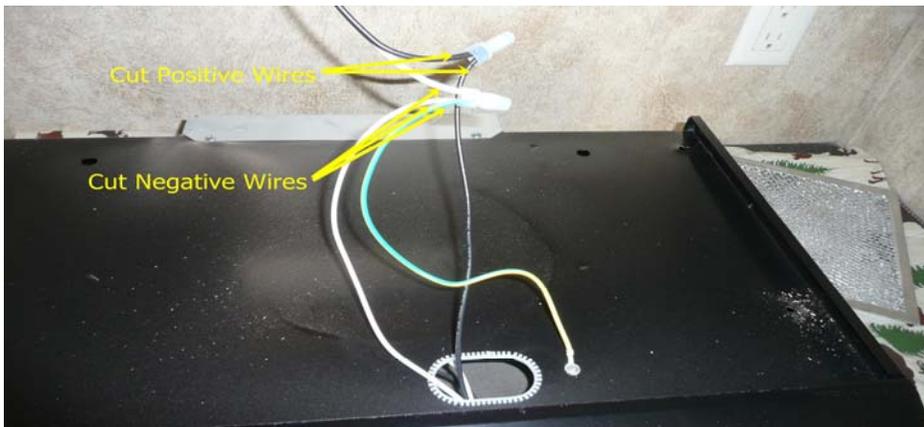
Here is my story.....

REMOVE RANGE HOOD

The range hood was attached to the cabinet with four mounting screws. After removing them I was able to place the old fan unit on the stove top. The wires were long enough to allow me to do that.



At this point I was able to remove the factory wire nuts by cutting all five wires.



Note: Be sure to disconnect ALL electricity before cutting any wires!

REMOVE FACTORY FAN BOX

The tools that I used all came from Harbor Freight. They were: Safety Glasses, 1/32 Drill Bit, Spot Weld Cutter, and a Graduated Drill Bit.

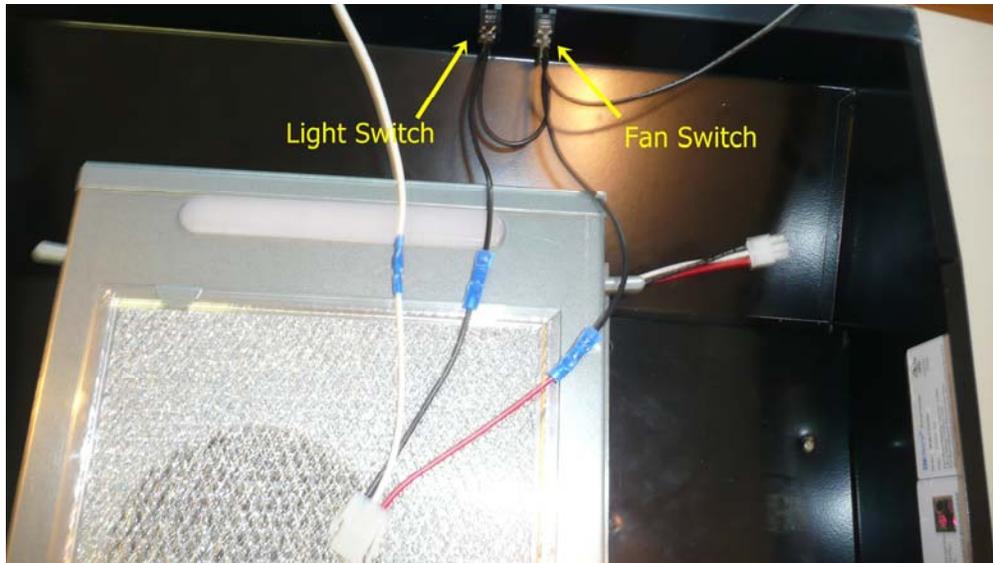


There were four spot welds on each side of the fan box for a total of 16 not the 32 that I was expecting. I was unfamiliar with the spot weld cutter and it took a little time to figure out just how to remove the spot welds. My first attempts caused the cutter to wander and I just scratched up the hood and fan box. A couple of times I drilled a nice hole but missed the weld all together. That's when I had to use the graduated bit to enlarge the hole and finally drill out the spot weld. After doing this a couple of times I resorted to the small 1/32 drill bit to get a hole started for the spot weld cutter to center in. Each spot weld had a small dimple and that is where I would position the 1/32 drill bit. This process took me 30 minutes. If I were to do it again using the process described above, I doubt that it would take no more than 10 minutes.



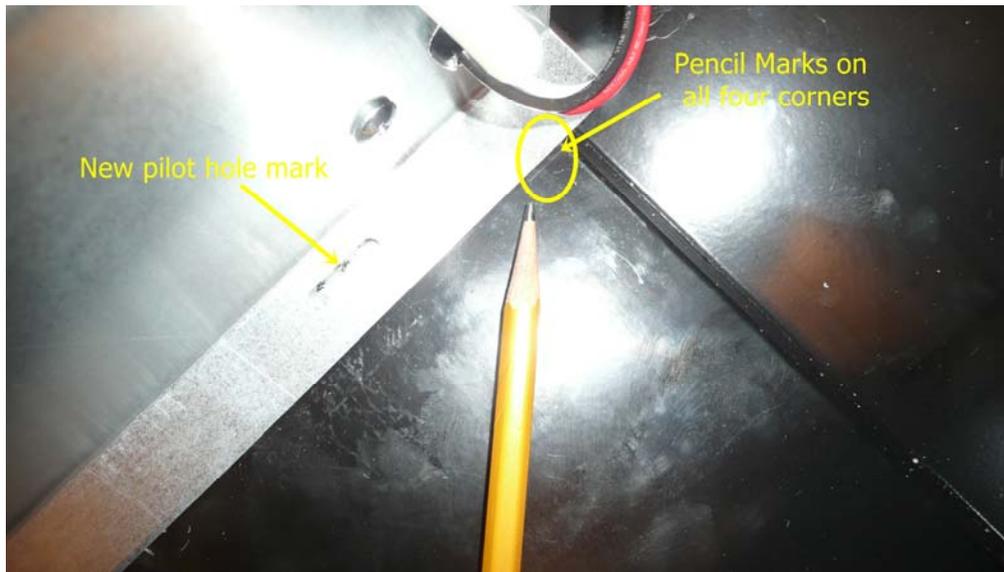
CONNECT SAM-1 WIRING

After cleaning up the box and pounding out some of the dented metal with a hammer, I was ready to wire the new fan. The instructions that came with the SAM-1 kit were simple to understand and follow. Connect the “fan switch wire to the red pig tail’s butt connector. Strip the cut end of the light switch wire and crimp it to the black pig tail’s butt connector.”

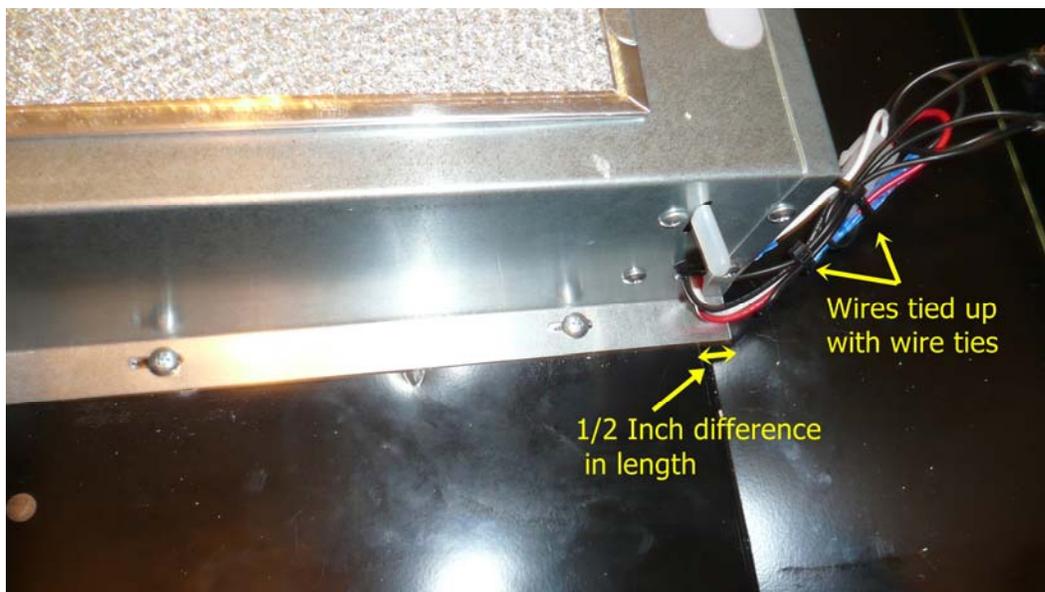


SECURE BOX TO RANGE HOOD

After making sure that the gap-free gasket was covering all of the open holes on the back side of the hood I drew a pencil line where the fan needed to be attached. I then made four marks where I needed to drill small pilot holes for new screws. Four screws were then tightened into the new holes.



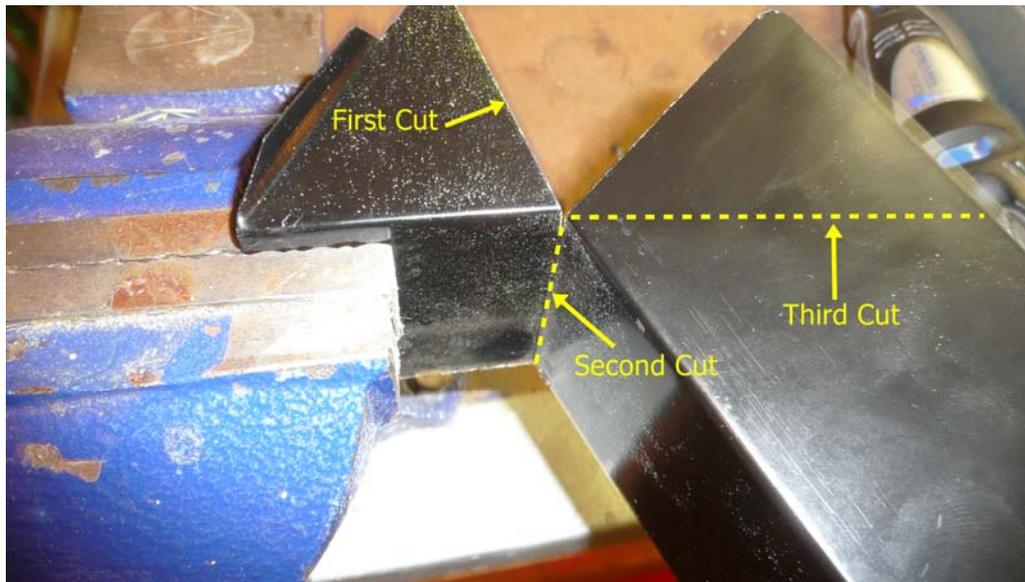
The wires were then neatly bundled together and bound with wire ties.



This could have been the end of the install, but I felt that the wires needed to be covered. A wire cover came with the kit, but I was unable to determine how to make it fit. I decided to use the old cover.

CUT WIRE COVER TO FIT

The process of cutting the old cover turned out to be quite an ordeal. Do to different angles, and missed calculations, several cuts were made but then had to be re-cut in order to insert the cover into place. The third cut indicated in the picture below should have been the first cut.



This effort was without question the hardest part of the install. An hour or more was spent just to make the cover fit to some degree. Even though it was the hardest part of the install, I felt it was necessary so the area could be cleaned easily without disturbing the wires.



This process took a lot of time with some special tools. Those tools included: A dremel, grinder, rotary wire brush, hack saw, and file. *Of course safety glasses!* A screw in the fan kit was removed and then used to secure the wire cover.



INSTALL RANGE HOOD

A new outside vent was included with the kit, but I chose to keep the original vent, since I had installed a screen prior to purchasing the SAM-1 kit.



The hood assembly was easily re-attached to the cabinet with the existing screws. The new LED light was worth ALL of the effort for this project. It is so bright! The quiet fan and access to the vent from inside were just icing on the cake!



The “trade-off” for this project was definitely a TRADE UP! – Thanks FOP