Radio and the F-150 Aluminum Body 2015+

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How the new F-150 changed the way you integrate radio into your truck.

Ford really changed the truck game when they announced that they would be moving away from their traditional steel built trucks and using aluminum for the majority of the body. People were really excited to see the loss in weight gained by using aluminum over steel but would quickly realize that the very thing that provided an increase in MPG would create a massive headache in the way we would now have to begin to incorporate aftermarket parts into our trucks.

Foundations:

I would like to start by saying that I am no expert. I am your average joe that over the last couple of years has learned from hands on experience on my very own 2015 F-150. It all started when I wanted to incorporate an 11 meter radio into my truck (CB-Citizens Band). I went online as many of us do and began my research on all the different options that were out there. The most simple of options included a very commonly used magnetic mount antenna and it is here where i realized for the very first time one of the many problems I was about to run into. Nothing magnetic sticks to the new F-150's because of the aluminum body. Ok, with that out of the way I began to do further research and found that another option commonly used was the stake hole pocket located in the bed of the truck.

Surprise……in most newer F-150s the front stake hole pockets of the bed are covered… like this:

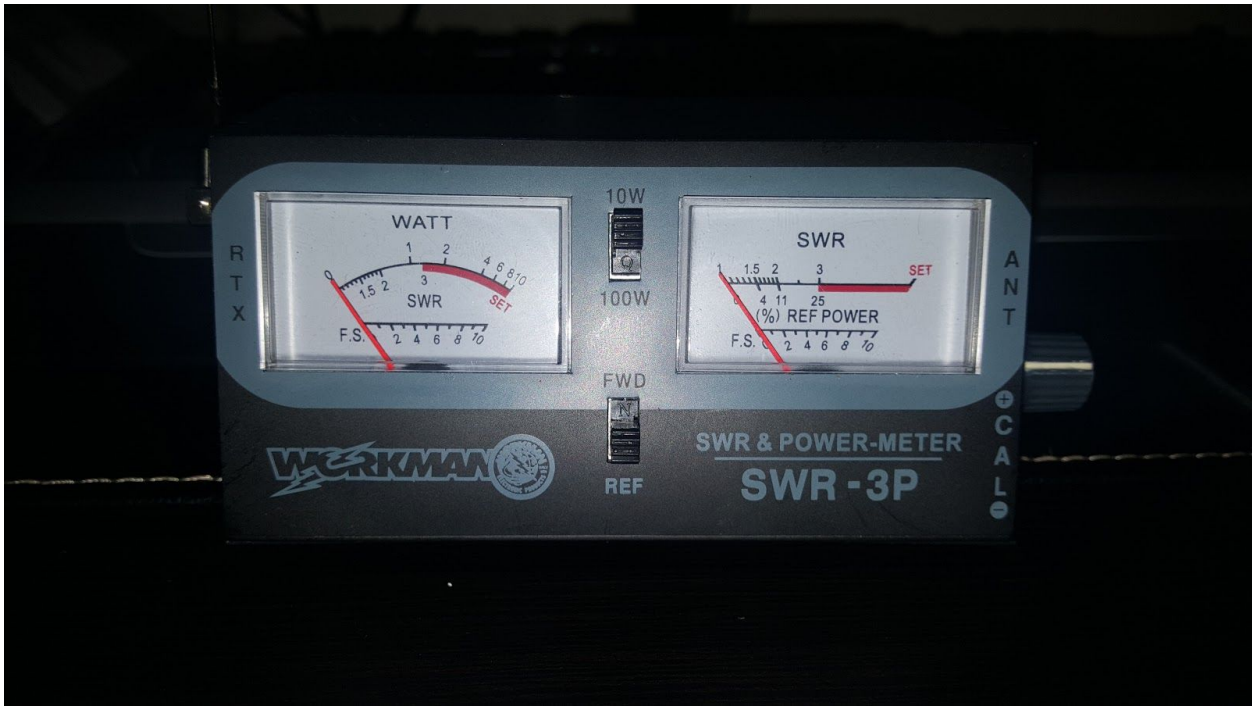
Good news, there is no need to worry, with some measuring and an exacto knife you can cut through the plastic and expose the stake hole pockets.

The mount i decided to go with was the Firestik stake hole mount pictured below.

The advantages of going with the firestik stake hole pocket mount were that it is made of stainless steel and comes equipped with a standard pl-259 female end and a ¾ x 24 threaded female end where your antenna mounts. “I highly recommend you use a med/heavy spring in between your mount and antenna”. I decided to run my cabling down the stake hole pocket and then back up into the cab through the rear cab vents. These are located right where the bed of the truck almost mates with the cab.

I continued to do research and discovered a new problem, Galvanic Corrosion...once again no expert here but from what I read you do not want steel that carriers current mated to aluminum or you will eventually have a bad time. This meant that where the bottom plate of the firestik stake hole pocket mount grabbed on to the aluminum bed of the F-150 a barrier would need to be used. I used 3M double sided sticky tape (rubber) as the barrier. This stuff is awesome. I picked mine up at target and as you'll see later have used it for many different things.

I was really excited to set up the radio, plug it in and test / tune my firestik antenna. I purchased a CB SWR meter and so should you...you don't want to be that person on the trail that has a CB Radio / Antenna that is not tuned. You also run the risk of damaging your radio. I picked this one up at Frys for around 35 bucks.



Radio, meter and antenna in hand i went to an open field to start my testing and it is here where i ran into my next big problem. Because i has used the 3m rubber barrier to avoid galvanic corrosion i had also stripped my system of a ground plane. The SWR meter would shoot up past 5 which is a solid NO-GO for CB operation. You want an SWR lower than 2 and the closer to 1:1 the better.

I went home disappointed and began to brainstorm on how I could possible get this mount grounded and after much thought I figured it out! You may laugh, you may think genius...probably more of the 1st but it worked!

The solution was running a wire from the firestik mount down the side of the bed and trying to find a place in the frame i could attach it to in order to ground the mount. Below you will see two images, the first image 1. Will show how and where I mounted the wire to the firestick mount. The second, 2. Will show where I attached it on the frame of the truck.

1.

2.

Now that i had created a grounding plane for the mount I went back to the field and adjusted the tip of my firestik II antenna until I was able to reach an SWR of 1.5 on channel 20. About 1.3 on channel 1 and 1.7 on channel 40. I had finally successfully ran a CB radio in my 2015 Aluminum bodied F-150.

You may be wondering what radio I choose to go with and how I mounted it inside the cab. I travel alot for work and sometimes the areas I am in are not the nicest. I wanted to make sure that I could easily take my radio and store it in my glove compartment without needing tools to take it off a bracket. I found that Scosche makes an awesome magnetic phone mount i purchased at Best Buy that happened to work perfect for this application as I wanted to build a system that was modular.

The CB radio project went so well that it sparked a true interest for me in everything radio. I quickly found myself learning all about Ham Radio (Amature Radio). The 2 meter and 77 centimeter band are the most popular in my area and possibly yours. I live in Chico, CA and recently as you may have heard there have been some catastrophic fires and some severe storms. I have also found that when these events happen cell phones become very

unreliable. I am currently studying to take my technicians license test as Ham radio does have FCC requirements in order to transmit. You can listen all you want but will need to take a test and get licensed if you plan on transmitting.

This is where the next project would sprout from. I wanted to integrate a dual band radio into my truck next. Now a couple years have passed and an awesome company called Procomm has launched an easy way to mount and ground an antenna to your 2015 or newer F-150.

This mount works great because it anchors to a bolt used to secure your hood to the truck. SQUIRREL... That antenna you see mounted there I created from a 5 foot Firestik I had laying around the house. The antenna was originally meant to be used on CB however I cut it to 15 ¼" to try and use as a ¼ wave antenna for 2 meter and it worked!!!! You mileage may vary, and in my humble opinion just go with a ⅝ wave antenna. Worked much better for me. Yes, if you look hard enough you can see Stella photobombing.

Going back to how the mount attaches, you can see here it's simple, just one bolt and tadaaaa.

The mount comes in stainless steel which does not match the color of my truck so I went to the garage dug out an old can of black high heat grill spray paint and gave it a couple coats before installing.

The wire runs into the cab through the door which I then routed through the weather stripping of the truck and eventually out and under my Rough Country “like weathertech” floor mats.

I now was left with figuring out how i would setup my dual band radio in the truck, once again I wanted to make sure it was modular and easy to get too. I also had some “industrial strength” velcro….

I went ahead and took the velcro attached it to the side of my center console right behind my CB radio and was amazed at how well it worked…

I wanted to make sure that the setup was as clean and modular as it could be. I also didn't want to permanently affix anything to the truck. I ran into a roadblock when trying to figure out where I would place the Mics to both the CB and 2M/70CM radios. One day while at the desk messing around with a rifle ladder rail cover I discovered it worked and fit perfectly on the back mounting point of radio microphones. I decided to go grab my super handy 3m dual sticky tape and adhered a couple rail covers to both sides of my trucks dashboard. All in all i could not have been happier with how everything turned out.

I hope this has been able to provide you with some insight, research and or ideas on how to integrate radio into your truck! Have FUN!!!!