

Mounting A CB Antenna To Your Discovery

by John Lee

<http://www.expeditionexchange.com/cbantenna/>



Everybody who goes offroading needs a CB radio. The need to communicate with others is obvious. While the performance of the various CB radios is poor, CB radios are the standard means of communication among offroader. Even those with ham radios will invariably find that others in their group are not equipped with ham radios, and these ham radio users will need a CB radio to communicate with the others.

There are numerous ways to mount a CB antenna to your Discovery, but my favorite mounting position is onto the spare wheel carrier. The advantages of this mounting location are several. There is no need to drill the vehicle's body. The mount is very strong. The mounting location will not interfere with the fitting of a roof rack. When the antenna is detached, the mount is nearly invisible. The antenna will not bang against your vehicle on the trail. This method of mounting also lacks the "trucker" look of many CB installations I have seen. I am not sure who first employed this location to mount the CB antenna, but the first publication of this ideal mounting location was Ho Chung's photos on Discoweb a few years ago.



Since that time, several people have mounted their CB antennae to the spare wheel carrier, and the results invariably have been very functional and aesthetically pleasing. On my Discovery I, I mounted my CB antenna in this same location and was very pleased with the result.

Han's Discovery II needed a CB antenna, so we decided to mimic the spare tire mount used so

successfully by so many others. On this vehicle, we previously inverted the wheel carrier to make room for Han's BF Goodrich 265/75-16 Mud-Terrains. The inversion of the wheel carrier does not affect the installation of the CB antenna mount.



To mount the antenna to the spare wheel carrier, Han purchased a Hood/Trunk Channel Mount (part no. SS-174) from Firestik. This mount is designed to permit mounting of a CB antenna into body panel channels, but is equally usable for mounting onto the spare wheel carrier. In the left photo, you can see that the mount has a 90-degree bend at its bottom for mounting into body panel channels. I chose to remove this portion of the mount to give the mount a cleaner appearance. In the right photo, you can see the three elongated mounting holes for direct mounting onto body panels. In addition to removing the bottom portion of the mount, I chose to remove the sides of the mount. Both of these steps are mostly aesthetic and not necessary to attach this mount to the spare wheel carrier. If you wanted, you could attach the mount to the wheel carrier without modification.



Using a cutting wheel on a Dremel tool, I removed the excess material from the mount.



After deburring and polishing the trimmed edges, the transformed mount looks like this. To the sides and above the single remaining elongated hole, I drilled two holes through which I would place two additional mounting bolts.



Secure the mount to the spare wheel carrier with three bolts. I used stainless steel fasteners with nyloc nuts from the local hardware store. Before drilling into the spare wheel carrier, carefully test-fit the mount and antenna to ensure that your CB antenna will not interfere with the spare tire or the rear wiper arm. If you are careful, you will have to mount and dismount the spare wheel several times and also operate the rear wiper to ensure you have the proper clearance. As always, measure twice and drill once.

On Han's Discovery II, there was plenty of room to find a good mounting position for the CB antenna mount, and we could mount the spare wheel without using any spacers between the spare wheel and the wheel carrier, even with Han's 265/75-16 Mud-Terrains. On Discovery I's, you may have to fit washers, depending on the tire size you employ. On my Discovery I, I had to fit washers under the spare wheel to make the necessary clearance, even with the stock Michelin 235/70 XPC's.



Here is a close-up view of the inside wall of the spare wheel carrier and antenna mount. Note that there is plenty of room for the co-axial cable connector. If you purchase the correct length fasteners, you should not have any problems.

To mount the antenna, we used a Firestik Heavy-Duty Stud Mount (part no. K-4A). This stud mount is threaded on top and bottom, for easy fitting of an antenna and co-axial cable.



To the stud mount, we fitted a Firestik Quick Disconnect (internal locking model, part no. K-1A). This quick disconnect permits easy attachment and removal of your CB antenna. Just push the antenna onto the mount and turn the antenna to lock, what Firestik aptly describes as a "push-n-twist" system. The quick disconnect is very handy for situations when you may want to remove your antenna to avoid theft or to make clearance for entering parking structures.



Here is a side view of the mounted antenna beside the spare wheel. There is plenty of clearance on both sides of the antenna. The antenna, when located properly, will touch neither the spare tire nor the rear wiper arm.



Here is a view of the mounted antenna from the rear. The mount is barely visible through the ventilation holes of the wheels. If you removed the antenna, the mount would hardly be noticeable.



With the antenna properly mounted, it's time to route the co-axial cable. Gratefully, the Discovery II is fitted with a large rubber grommet beneath the spare wheel carrier to permit routing of the rear washer hose. We routed the co-axial cable through this grommet and did not have to drill a hole through the cargo door. The grommet is large and flexible enough to encircle the both wires without damaging the grommet.

On the Discovery I, the washer is located on the vehicle's body, and there is no such grommet on the cargo door. You will have to drill a hole in the cargo door to route the co-axial cable. Firestik sells Coax Grommets (part no. CGA) to ensure that the edges of the hole you drill will not abrade the co-axial cable. The Coax Grommet will also prevent the ingress of water.



With the co-axial cable through the washer hose grommet, you will have to route the co-axial cable from the cargo door to inside the vehicle. The most elegant way to do this is to route the co-axial cable through the concertina boot that houses the washer hose and rear wiper power cable.



To access the co-axial cable for proper routing, you will have to disassemble your cargo door panels. If you are contemplating fitting larger than stock tires, you may want to invert your spare wheel carrier at

this time while the cargo door is disassembled.



Remove the plastic cover beneath the cargo door's latch. The cover is secured by a single screw. The cargo door's handle is secured by two hex bolts that are easily unscrewed.



Start disassembling the cargo door panels by removing the subwoofer's screen. The screen is affixed by six screws.



Removing the screen will expose the four screws securing the subwoofer's plastic cover. Unscrew these four screws and remove the plastic cover.



The subwoofer is secured to the cargo door by eight bolts. Unscrew all of these bolts and the subwoofer can be removed.



When removing the subwoofer, be careful not to yank on the subwoofer's power plug. Undo the plug and remove the subwoofer completely.



With the subwoofer removed, you are ready to move the entire inner lining of the cargo door. You need not remove the storage basket fitted to the lining. The liner is secured to the cargo door by several grommets. The grommets simply pull out. I used a large screwdriver covered with masking tape. This is not the proper tool, but will suffice if you are careful. You can see that I made a cruciform cut into the transparent film to permit access to the co-axial cable.



Here is a close-up of the interior of the cargo door. The large black tube encircling the thick two wires is the black rubber grommet. The hose with the green rubber connector is the rear washer hose. The plain black tube is the co-axial cable.

From this hole, you will be able to thread the co-axial cable through the concertina boot and into the vehicle's cabin. Once the co-axial cable is inside the cabin, you can pretty much mount your CB radio anywhere you want and route the co-axial cable any which way you like.

Reassemble the cargo door trim in the reverse order.



Here is a view of the completed antenna mount, with a four-foot Firestik II antenna (part no. FS4-B) fitted. This is the antenna that Han will use on the trail and on road trips.



Han's Discovery II gets a lot of mileage in Downtown Los Angeles. For city use, we fitted a two-foot Firestik II antenna (part no. FS2-B). With the Quick Disconnects fitted to the antennae and the stud mount, it is a simple matter to change antennae. The shorter antenna gives clearance for parking structures and garages, but still provides adequate transmission and reception.

If you live in an area where clearance is not a concern, dispense with fitting dual antennae. If you do decide to fit dual antennae, an almost ideal location for storing one or both antennae is below the folding rear seats. There, the antennae are securely held yet are easily accessible when you need them.

Enviado por **Joaquim Pedro**