
How do you install in your car a rig with no mobile mounting holes? Ham ingenuity, of course. AD5X shares his solution for his SGC SG-2020, which can no doubt be adapted for other radios as well.

A Mobile Mount for Your SGC SG-2020

BY PHIL SALAS,* AD5X

The SG-2020 is a rugged little transceiver. It's great for portable use because its 20-watt power level is a good compromise between the standard 100-watt rig (which is about one S-unit higher) and QRP (about one-S-unit lower). I've been wanting to install this rig in my car, but SGC didn't provide mounting holes in the radio for mobile operation. Therefore, my goal was to develop a mobile mount, yet not have to do anything surgical to the SG-2020 case.

I started considering a mount when I found an "Adjustable Underneath Mounting Bracket" at RadioShack (RS270-011, for \$3.99). This is very flexible and is designed to support almost anything under your dash up to nine inches in width. This was great, but how could I attach it to the SG-2020?

While wandering around the "Deck Center" in my local ACE Hardware Store, I happened to come across some steel brackets normally used for supporting wooden posts. I bought two 4.5" x 4.5" angle clips for \$1.19 each, and two 5" x 2" mending plates for \$0.49 each (see photo 1).

Assembly

Your first assembly step is to center the 5-inch mending plates on the 4.5" x 4.5" angle clips, drill mounting holes, and assemble using #6 x 1/4-inch machine screws.

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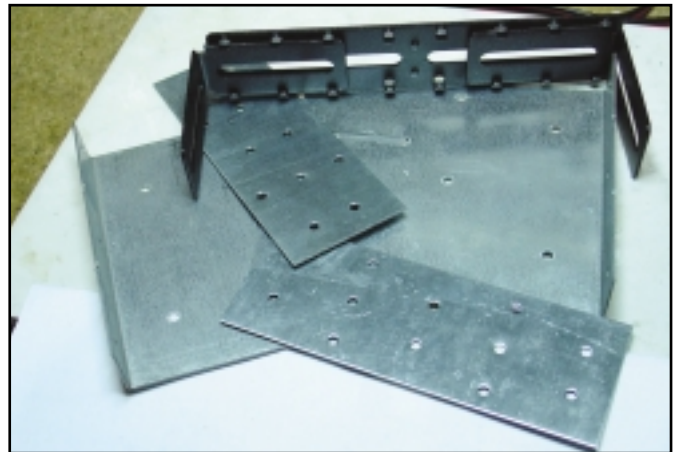


Photo 1— Steel brackets designed for supporting wooden posts became the building blocks of the SG-2020 mobile mount.

Next you need to mount the two angle-clip assemblies to the bottom of the SG-2020. I was able to do this by using the three bottom SG-2020 mounting holes as shown in photo 2. I adjusted the spacing so that there is about 1/4-inch clearance between the mending plates and the sides of the SG-

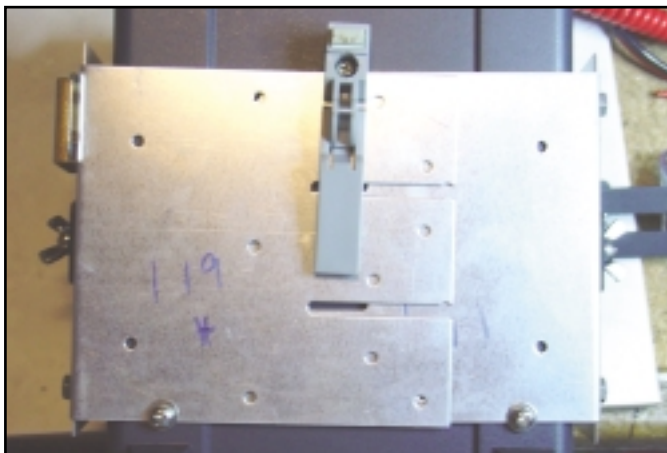


Photo 2— Three holes in the bottom of the SG-2020 are used to secure the mounting bracket to the radio.



Photo 3— Details of the side attachments to the radio as well as the mounting of the top bracket and mic clip.



Photo 4— Once the mounting assembly is complete, it can be attached with wing nuts to a standard RadioShack bracket for mounting in your vehicle.



Photo 5— The SG-2020 mounted in the author's VW Beetle. The "Tenna-Tune" box below it is the subject of a future article.

2020, and then nibbled out a notch for the screws. You'll need to use #6 \times $\frac{5}{8}$ " screws for the two back screws, and a #6 \times $\frac{3}{4}$ " screw for the front. Use #6 flat washers between the plates and the SG-2020 case, and put #6 split lock-washers under the heads of the screws. The last thing I did was to attach a RadioShack CB microphone holder (RS21-923) to the left mending plate. I drilled a hole for the top of the microphone holder, and used the two-sided tape provided with the holder for securing the bottom. The holder as well as the assembly details are shown in photo 3.

Now that I had a mounting assembly on the SG-2020, I attached it to the RadioShack mounting bracket using #8 screws, nuts, and wing-nuts as can be seen in photo 4. The wing nuts make it easy to remove the SG-2020 from your

car when you feel uncomfortable leaving it unattended.

Installation

My SG-2020 is mounted under the passenger-side dash in my Y2K Bug (VW New Beetle, year 2000). As is the case in most modern cars, mounting the assembly in the VW is a challenge in itself. For my car, I made up brackets by cutting a $\frac{1}{2}$ " \times 4" steel mending plate in half and filing the ends so they would fit into the dash mounting screw area on the car. You can see these brackets in photos 3 and 4. In the VW these mounting screws tie right into the car frame, and I verified that a good ground existed between the SG-2020 case and the car chassis. Photo 5 shows my final installation. Incidentally, the "Tenna-Tune" shown mounted under the SG-2020 is

the subject of an upcoming article.

Incidentally, I operate HF mobile only when my XYL is driving or when I'm parked. There are just too many distractions in the heavily populated Dallas area, and safety is my primary concern. It should be yours as well.

Conclusion

The SG-2020 can make an excellent mobile rig, except that there is no easy way of securely mounting it. I've shown how to make up a mobile mount for this radio that works well, is very inexpensive (my total cost outlay was less than \$10), and requires no modifications to the SG-2020 case. For the ultimate mount, you may wish to paint the assembly gray in order to match the SG-2020. Happy SG-2020 mobiling! ■