

## Temporary HF Mobile Transceiver Mount Phil Salas – AD5X

Recently my HF mobile operation has become pretty sporadic. I do like a transceiver in the car for the occasional trips to Paris, TX to visit my mother-in-law, and to Albuquerque, NM to visit my Dad. Normally, however, I don't like to keep my expensive IC-706MKIIG in the car. And since my mobile operation occurs rarely and we could take one of two different cars, I don't want to make permanent mounts for both cars. I just want to temporarily put my transceiver in a car for that occasional road trip.

My solution was to build a simple mount that attaches to the center arm rest of both cars using hook-and-loop straps. I just cut out a piece of particle board that fits the arm rests in both cars, and attached my IC-706MKIIG mobile mounting bracket to it. I bought some hook-and-loop material from a local Hobby Lobby for less than \$2 and attached the "hook" strips to the board with epoxy. I also put a row of rubber feet on the back of the particle board to keep the mobile mounting screws from harming the plastic of the arm rest. You can see what this looks like in Photo A. Next, place the assembly on the arm rest and cut two "loop" straps so they wrap around the arm rest and hold the assembly tightly in place. Photo B shows the assembly mounted to the arm rest in my Subaru Forrester. I can mount the assembly with the IC-706MKIIG facing backwards or forwards, depending on where I want to sit when operating (my XYL drives when I operate). Photo C shows the IC-706MKIIG facing forward, and Photo D shows the rear of the radio.

OK – the radio is mounted, but how about powering it? You could use the automotive accessory socket. However the accessory socket is only fused and rated for 10-15 amps – less than the 20 amps peak current needed by my IC-706MKIIG. And the mating accessory plug doesn't provide the best electrical contact for the high peak current either. Well, I got around this problem with a MFJ-4403 Transceiver Voltage Conditioner. The MFJ-4403 is an interesting gadget that clamps any input transients above 15 volts and also provides non-destructive reverse voltage protection from any voltage source. It also buffers the input voltage source with over four farads of capacitance. So the high output capacitance handles your high current peaks, and the capacitors re-charge through the accessory socket during the average current draw. This unit works great! I can run full power (100 watts) on both SSB and CW with everything connected to the accessory socket. While Photo E shows the MFJ-4403 front panel, and Photo F shows the inside of the unit. Finally, photo G shows the backside of the unit. MFJ didn't provide a ground screw, so I added one as you can see in this photo. Normally I place the MFJ-4403 under the passenger seat with its input plugged into an accessory socket in the center console. A ground strap goes from the MFJ-4403 to a seat mounting bolt

What I've described is truly meant for temporary mobile installations like rare road trips, flexibility in using separate cars, and rental car operation. Normally a fixed transceiver mount and DC power connected directly to the battery is the way to go, as this will ensure the highest safety and best noise performance. However for a temporary mobile installation, the solution I've described works quite well.

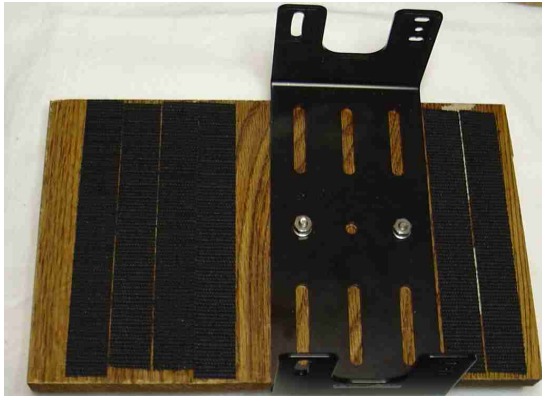


Photo A: Arm rest with "loop" straps

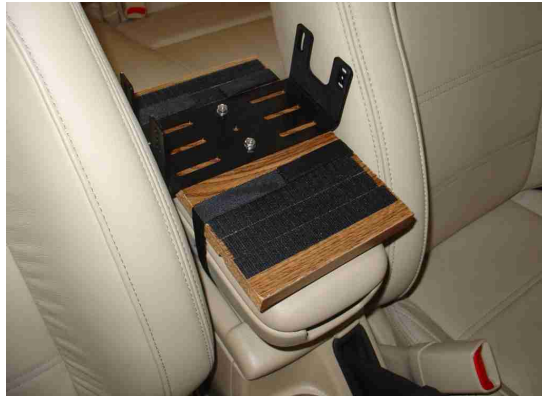


Photo B: Mount strapped to arm rest



Photo C: IC-706G mounted

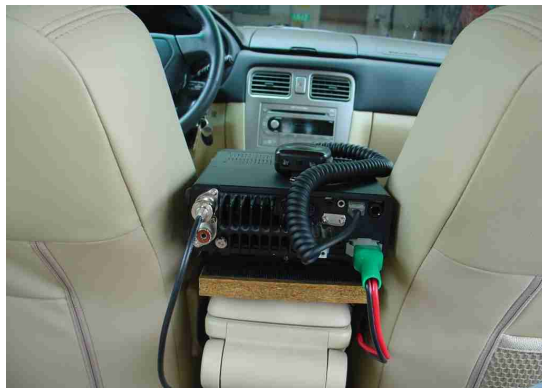


Photo D: Back view of mounted IC-706G



Photo E: MFJ-4403 Voltage Conditioner



Photo F: Six 25-farad capacitors in series!



Photo G: Added ground post