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## Sierra-2EX to Sierra-2EX V2 Upgrade Instructions

### Recommended Tools:

Phillips head screwdriver  
1/2" Nut Driver (1/2" socket)  
Nail or small, thin-shaft screwdriver  
Stubby handled Phillips head screwdriver (short handle)

### Included Parts:

Sierra-2EX V2 Crossover  
V2 Product Label

Please type the following URL in your web browser to visit our Community Forum for helpful video instructions: <http://forum.ascendacoustics.com/showthread.php?5545-Sierra-2-Upgrade-instructions-with-video!>

***We strongly recommend re-installing the magnetic guard over the tweeter to protect the delicate ribbon during the entire process.***

### **1 Remove the Tweeter**

- a) Gently lay the speaker back so the front of the speaker is facing upward.
- b) Using the Phillips head screwdriver, carefully remove the (4) screws from around the perimeter of the tweeter and set them aside.
- c) Lean the speaker forward and carefully remove the tweeter and gaskets from the cabinet.
- d) Gently remove each female wire connector from the tweeter's male terminals. You will need to gently wiggle the connector to remove it from the terminal. Do not apply too much force or you will risk damaging the tweeter and/or the connector itself.

### **2 Remove the Woofer**

- a) Using the Phillips head screwdriver, carefully remove the (4) screws from around the perimeter of the woofer and set them aside.
- b) Lean the speaker forward and carefully remove the woofer from the cabinet. A useful trick to help remove the woofer is to insert one of the Phillips head screws you just removed into one of the woofer's mounting holes. Angle the screw downward (or upward) so that the threads of the screw grip the basket frame and pull on the screw. If still stuck do this same procedure in a few of the other mounting holes. If you still can't get the woofer out, please call us.
- c) Gently remove each female connector from the woofer's male terminals. You will need to gently wiggle the connector to remove it from the terminal. Do not apply too much force or you will risk damaging the woofer and/or the connector itself.

### **3 Remove damping material and disconnect the crossover lead wires**

- a) Reach inside the cabinet, fold the white Dacron batting material in half and then pull it from the cabinet.
- b) Using the 1/2" nut driver, carefully remove the securing nut from each of the two binding posts on the inside of the cabinet and set these aside.
- c) Using your fingers, remove the lock washer that is underneath the nut you just removed and set these aside. The crossover lead wires should now be free.
- d) Remove the red and black crossover lead wires from the binding post terminals.

### **4 Remove the old crossover**

- a) Examine the crossover board which is secured on the bottom of the speaker cabinet. Locate the (4) securing screws at each corner of the crossover board.
- b) Using the stubby handled Phillips head screwdriver, carefully remove each of the (4) screws and set these aside. Please be careful to avoid damaging any of the crossover components.
- c) After all (4) screws have been removed, remove the crossover from the speaker cabinet.

### **5 Install crossover screws**

Using the same screws that you removed from the original crossover, insert these into the (4) screw holes in the new Sierra-2EX V2 crossover.

### **6 Install Sierra-2EX V2 crossover into speaker cabinet**

- a) Look inside the speaker cabinet and find the (4) screw holes on the bottom baffle.
- b) Place the new crossover inside the cabinet such that the mounting screws are lined up with each corresponding screw hole/insert. Align the crossover such that the two crossover lead wires (2 wires) are in the back of the cabinet and the woofer and tweeter wires (4 wires) are towards the front of the cabinet.
- c) Using the stubby handled Phillips head screwdriver, gently tighten down each mounting screw, making sure that each screw is tightening down in the screw insert. The crossover board must not bend so take your time.

### **7 Attach crossover lead wires to binding posts**

- a) Place the crossover lead wires back onto the binding post terminals. Please make sure to keep red to red and black to black.
- b) Install the lock washers that were removed in step 3, part c.
- c) Install the nuts that were removed in step 3, part c.

- d) On the back of the cabinet, locate the binding posts. Unscrew the plastic knob on both the positive and negative terminals.
- e) Insert your nail or thin-shaft screwdriver into the hole in the red positive brass terminal and grasp it there for counterforce while you perform the next step.
- f) Using the 1/2" nut driver, tighten down from within the cabinet the securing nut of the red positive terminal. This should be tightened so that the binding posts on the back of the speaker are secure and will not twist or turn, and so that the nail or screwdriver lever remains as close to vertical as possible.
- g) Repeat steps e) & f) for the black negative terminal of the binding post.
- h) Inspect the holes in the brass terminals of the binding posts to ensure they are vertical. Once satisfied, rescrew the plastic covers of the binding posts.

### **8 Reinstall the damping material**

- a) Grab the woofer and tweeter crossover wires and position them so that they hang outside the speaker cabinet.
- b) Fold the damping material in half and place it back into the cabinet.
- c) Unfold the damping material such that it now covers the internal walls of the cabinet.

### **9 Reinstall the tweeter**

- a) Grab the red and black crossover wires and insert them through the opening in the shelf brace and then out through the tweeter opening.
- b) Gently push the plastic insulation covers down the length of the wire exposing the female terminals.
- c) Using the red and black crossover wires, gently push the female terminals back onto the corresponding male terminals on the tweeter. Red wire to the positive terminal and the black wire to the negative terminal. It is critical that the polarity is correct, or the speaker will not perform properly. We also recommend gently tightening the terminals with a pliers before you install them onto the tweeter terminals, you must ensure that these connections are tight before closing up the speaker.
- d) Slide the plastic insulation covers back over the female terminals.
- e) Install the tweeter back into the speaker cabinet and screw into place.

### **10 Reinstall the woofer**

- a) Grab the brown and black crossover wires and pull them outside the speaker cabinet through the woofer opening.
- b) Gently push the plastic lead covers down the length of the wire exposing the female terminals.

c) Place the woofer gasket in the cutout with the holes in the gasket aligned with the screw holes.

d) Using the brown and black wires, gently push the female terminals back onto the corresponding male terminals on the woofer. You may also gently crimp the terminals with a pliers. Regardless, you must ensure that the connection is tight before closing up the speaker.

e) Slide the plastic lead covers back over the female terminals.

f) Place the woofer into the cabinet ensuring the screw holes are aligned and screw into place.

**Congratulations, you are finished!**