

Tools required:

- precision screwdriver set
- soldering iron
- solder
- wire (24 gauge or smaller)
- shrink wrap or electrical tape
- wire cutters/stripper
- multi-meter
- sharp utility knife
- 15/64" drill bit and drill



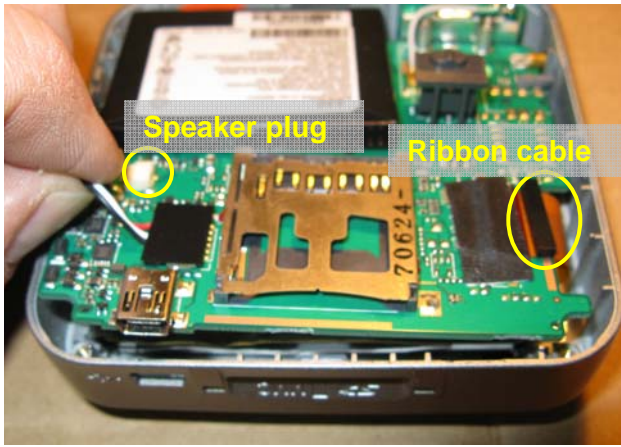
Remove the rubber caps and two Phillips head screws at the bottom of the unit (**don't lose the screws!**)



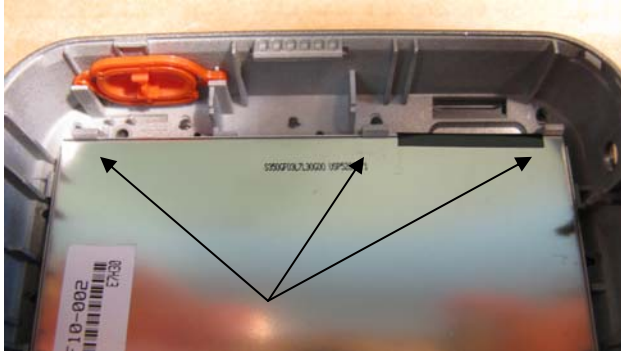
Gently pry the back off starting at the bottom and then work your way up the sides. If you hear the sound of crunching plastic please re-read the first word in the above sentence.



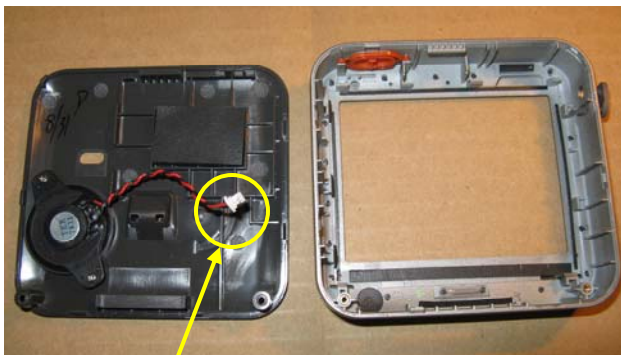
Once the back is loose you can pull it down and then away from the main body. Be aware that the speaker wire will prevent complete removal of the units back.



Disconnect the speaker wire plug from the main board and set the back of the unit aside. The only thing holding the circuit board in place is the USB port. Simply pry the bottom of the case slightly and lift out the circuit board. There is a ribbon cable attaching the circuit board to the display so be gentle with this.



Six clips (three on top and three on bottom) hold the screen in place. Pry the top clips back slightly and remove the screen.



With the electronics and screen safely put out of harms way you are ready to “massage” the case to install your headphone jack. It was at this point of course that my wife wandered into the shop and *calmly* asked me what I was doing to the Christmas present she bought me.



After reassuring my wife that her present was in good hands I proceeded to cut the speaker wire and solder on two leads at the plug end. You will want to leave the long portion of the wire with the speaker so that it will be able to reach the new headphone jack.

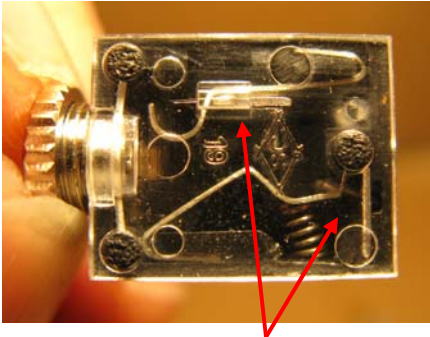
HINT:

I believe that you can buy a new plug c/w flying leads at electronics stores. This would look much better than my patch job.

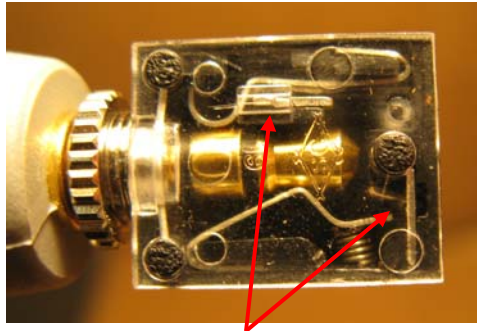


The headphone jack cost me a whopping \$1.49 at the local electronics store. I bought two since I knew that if I had a spare I would never need it.

It was sort of helpful that the jack had a clear back to it since you can see how the contacts change when the headphone plug is inserted. You will need to use a multi-meter to confirm the common of each contact and connect these to the circuit board



Contacts to speaker closed



Contacts to speaker open



I found that the best spot to mount this jack was underneath the external antenna connection and as close to the back of the unit as possible (to avoid interference with the circuit board). Mark the housing for the centreline of the jack and then mark where the center of the jack needs to be as so that it is as far back as possible



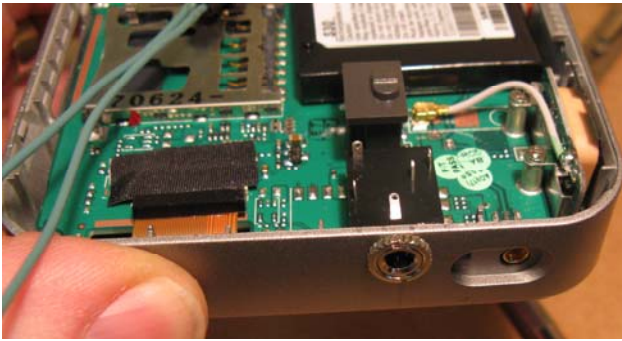
Marking the hole with the soldering iron will help keep the drill bit from wandering



Et voila! One nice round 15/64" hole. Confirm the hole size for your jack but this should be a standard. Actually the plastic Mio uses is quite conducive to ease of drilling.



I found that keeping the jack as close as possible to the antenna hole (almost completely) avoided interference with the speaker. Some slight “massaging” with a utility knife was required.



Since there is no connection to the front pin you can bend it down out of the way or cut it off. You may also find that bending the other pins slightly helps increase the clearance between the jack and the rear cover.



After you have re-installed all of the “guts” you can solder the connection from the circuit board to the common of each contact and the speaker (note the long wire still attached) to the other side of the contacts.

NOTE: Photo is purposely reduced in size so you can't see my messy soldering job.



Look honey it still works!

Enjoy!

One added bonus is that my new Chevy van has a 3.5 mm auxiliary audio input so that I can connect my Mio through the sound system to hear Samantha better or to listen to tunes off my SD card. Please don't watch movies while you are driving!