The VDCHawk Antenna Headphone Earbud Conversion Project

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Headphones or “Painphones”

Perhaps the biggest complaints of the Stiletto is not its reception, not its size, not the lack of a clock or sleep timer. The biggest complaints have been that misshapen ear dagger sometimes referred to as “Painphones” or rather Antenna headphones (SLAH1) that come standard with your Stiletto.

Have no fear, your troubles are over. With the help of our friend and forum buddy Keith, aka VDCHawk, he has come to the rescue with his sure fire earbud extension project to help those poor ears out. This was originally posted in the Sirius Backstage Stiletto forum.

The project is fairly simple and straight forward. It does take a steady hand and a little soldering experience, but once done, is extremely well rewarded with good Stiletto reception and a comfortable listening experience.

Prior to the start you will need some tools: Nothing an engineer does not already own in their workshop. But if you don’t have what you need it, is available at your local Radio Shack.
Here is the list of tools:

- Jewelers Philips head screwdriver
- Jewelers Flat head screwdriver or thin flat blade.
- Diagonal cutting pliers, preferably small electronic type
- Needle nose pliers
- Soldering iron – Small tip and solder
- Small knife
- Holding jig, or small vise.

In my experience of doing this project, you might get yourself some magnifying glasses. The parts are VERY SMALL. So some good light is always good too.

I have one of these lamps with a magnifying glass. It helped out a lot!
Removal of Top Antenna Cover

The antenna cover is held in place by two small Phillips head screws and two plastic snaps. To get to the screws you need to peel back some of the rubber padding on the underside of the headphones. You don’t have to take off the entire pad, just enough to reach the screws and the clips.

You may need a sharp knife or use the end of the flat screwdriver, gently peel back each end of the rubber pad. It is stuck on to the headphone with some adhesive. Pull of the pad enough away to get to the screw and use the screwdriver to unscrew it.

Repeat this for the other side of the pad.

Once both screws are removed and put in a safe place, we need to release the two plastic clips holding the cover on. Again you need to pull away the top and bottom portion of the rubber pad.

Using your small flat bladed screwdriver, insert it into the headphone just below the clip, in the lower portion of the hole. Push the plastic clip upward releasing the top half of the headphone cover. Repeat this for the lower half. This should release the entire cover.
Removal of the Wire Manager Pieces

There are two plastic wire manager plastic pieces that cover the ends of the headband and keep the wires from coming out of the headband channels. Each one is different. There is a left one and right one that are each unique. In the next step you will remove each of these.

Note: The left one is slightly larger then the right one. You need to remember where each side goes so as you remove them put a piece of tape or mark them in such a way that you remember.
To remove each wire manager piece; using your fingers or a pair of needle nose pliers, gently pull on it with a rocking motion back and forth, slowly sliding it from the headband channels.

Repeat this for both sides. Remember to mark each side so you know where it goes back to when you reassemble it.

Cracking Open the Dagger Assemblies

The next step you actually have to break open the lower headphone assemblies. The covers are glued to the base back. If you do this carefully you won’t make too much of a mess.
I used a small sharp pen knife for this. Start at the base and work your way around to the top. Be careful as the wires for the ear pieces run along the middle of the cover you are cutting off. Just take it slow. The left side of my headphones came off very easily there was very little glue holding the cover down. The right side was much more difficult and cracked in a few places. It really does not matter that it is cracking as you are getting rid of those Ear Torture chambers.

Final Wire Removal and Circuit Board Removal

Gently disconnect the wires from the two removed covers. Pull all wires from the headband channels. The wires run inside a channel on each headband. They should just pull out.

The headphone wires are on each side of the board. The red toned wire is the positive, the other is the negative. You will need to check your replacement earbuds for proper polarity.
Carefully remove the circuit board from the headband. This should leave you with the circuit board and the two lower Earbuds like the picture below:

Place the circuit board in a small vise or alligator clip jig.
Solder on the New Earbuds

Unsolder the existing wires; be extremely careful on the left side not to disturb the wires from the radio cable.

Apply solder to the new earbud wires before soldering them to the board, this process is called tinning.

Solder the new Earbuds to the board. It may help to tape the wire to the circuit board to hold it in place. After the solder cools, trim any excess wire.
Test the headphones, there should be no need to test the antenna, but be sure you have sound from each earpiece before continuing.

**NOTE:** Did you notice something?  
For those that are really observant, they may have noticed that the left earbud is attached to the right side, and the right to left. This was done on purpose; the curve on the JVC headphones fits better if worn in reverse.
Re-assemble the board into the headband, the round cutouts in the board must be over the clip holes in the headband.

Push the wires into the wire channels; leave them a little loose by the circuit board.

Insert the wire manager pieces into the headband, making sure that the wires are correctly positioned underneath.

Re-assemble the top plate to the headband, re-install the screws.

Secure rubber pad back to headband. To help with the fitting and comfort of the headphones, put a wrap of the Velcro soft side at the bottom. It helps hold the wires in the groove. Use the ¾” Velcro squares, be sure to wrap them over the open side of the channel.
There you have it. This completes your new Earbud Antenna Headphone.

What’s Next

I’m going to try another option where instead of a headphone I connect a headphone extension cable to it so I can plug in any headphones. The end will include a 1/8 3.5 mm connector.

I am also considering removing both ends of the headband and putting Velcro on the antenna for my Sirius Hat or perhaps a suction cup that will work on a car window.

Good Luck on your earbud project. Be sure to post your results on the Sirius Backstage Stiletto Forum!

Happy Listening!