HINT FOR KIT BUILDERS

Soldering the LM3886 in place

Some kit builders have reported a preference for the following method of soldering the LM3886 in place.

Set the LM3886 into the board, but don't solder it in place. Temporarily complete the mechanical assembly as shown in Figure 1 or Figure 2, depending upon your kit.

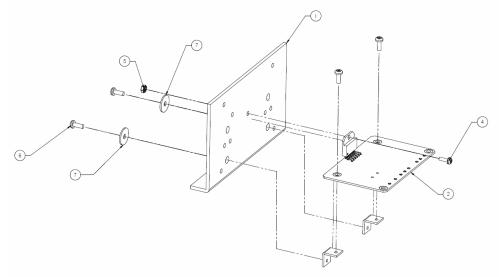


Figure 1-Mechanical assembly of the original kit

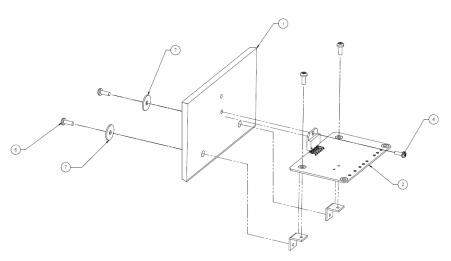


Figure 2-Assembly of the super heat sink version

For the original kit:

• All the hardware is #6-32x3/8" except the 4-40 screw and nut that hold the LM3886 to the heat sink.

For the super heat sink kit:

- 4-40 screw (callout 4 in Figure 2). No nut is needed owing to the tapped hole in the super heat sink.
- Qty 2 of #6 fender washers, and Qty 2 of #6-32x5/8" pan-head screws (callouts 6 and 7 in Figure 2).
- The two screws that hold the PCB to the brackets are 6-32x3/8".

Look carefully at the board, the LM3886, and the heat sink. True and center everything before you tighten down any of the screws.

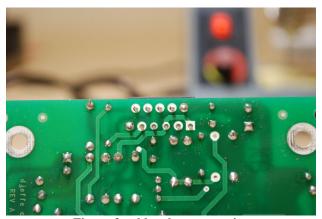


Figure 3-solder the corner pins

Solder just the corner pins of the LM3886, as shown in Figure 3. Make sure that the LM3886 is straight and level above the board as shown in Figure 4. Your set up won't look exactly like this because the kit is now supplied with the metal tab LM3886, and you will not have placed thermal compound on the LM3886 at this point.



Figure 4-proper mounting of the LM3886

If everything isn't straight and level, loosen the screws and reheat the corner pin(s) to square things up. Once the mechanical assembly looks good, you can either:

- 1. solder the rest of the LM3886 pins just as it is, or, if it's more convenient,
- 2. remove the PCB and LM3886 assembly from the heat sink before soldering the rest of the pins.

You can now return to the regular directions.

Make sure that at some point you do apply thermal compound between the LM3886 and the heat sink.

Input Jack Inspection

If your input jacks are held in by screws, make sure the screws are tight. Tighten the screws if they aren't tight.

If your input jacks are held in by rivets, make sure that the rivets are tight. The ground for the input circuits comes through the physical pressure applied by the rivets to hold the jack to the chassis. If the rivets are not tight, you'll want to add the wires shown in Figure 5

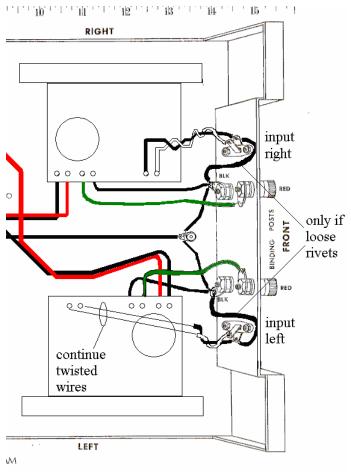


Figure 5-added wires to combat loose rivets

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Adjusting the Cover to Make the Screws Easy to Insert

If it's difficult to get the screws into the bottom, perhaps the sides of the cover have been bent. The most likely directly is that they have been bent slightly inward. You can quickly remedy this by holding the cover against a table as shown, and pulling gently downward on the cover. This bows the sides out slightly. When you reinstall the top cover, the bowed slide will register against the edge of the chassis bottom. This centers the mounting holes nicely.



Figure 6-Gently bend the sides of the cover to make the screw holes align more easily

Making Your Speaker Inductors A Bit More Physically Stable (Optional)

Rick¹ sends the following suggested way to increase the physical stability of the turns on the speaker inductors wound around the output caps. As shown in Figure 7, he put a bead of hot glue across the cap, the windings, and down to the PC board. Here's what Rick had to say about hot glue:

"I've found that stiff recycled wire can have a mind of its own. The trick is to measure and cut the inductor wire as directed, solder one end to the L1A eyelet, warm up the glue gun then wind the inductor around the cap (I used a small \$3 hobbyist gun). While holding the windings tight, apply two beads of hot glue, one on each side of the cap. Continue to hold the wire until the glue hardens. This gives the nice tight winding you see in the photos. You can now let go of the wire and it will stay perfectly wound until the cows come home. The locations for the two beads are shown in the two photos. There is room for the glue in these locations without danger of gumming up other components

¹ Rick's last name not provided to protect his privacy.

on the board. The hot glue allows the L1B end of the wire to be custom trimmed such that it can be bent at a right angle exactly above the L1B eyelet and soldered without worrying about "spring-back"."

Please be careful...hot glue melts between 180 and 200 degrees C. Don't burn yourself. Be careful also for any signs of melting on the outer jacket of the capacitor. Certainly don't allow the tip of the hot glue gun to touch the capacitor body. If you get the capacitor too hot, you could damage it.







In response to my caution box, Rick responded:

"You're right... I didn't burn myself or the plastic skin on the cap. As always, take your time while working. Again, I used a small \$3 plastic glue gun."