



Installing Mac mini Model A1347 Logic Board Replacement

Tools used in this guide

- [2mm Hex Screwdriver](#)
- [Mac mini Logic Board Removal Tool](#)
- [Spudger](#)
- [T6 Torx Screwdriver](#)
- [T8 Torx Screwdriver](#)

Parts relevant to this guide

- [Arctic Silver Thermal Paste](#)



Step 1 - Bottom Cover

- Place your thumbs in the depressions cut into the bottom cover.
- Rotate the bottom cover counter-clockwise until the white dot painted on the bottom cover is aligned with the ring inscribed on the outer case.



Step 2

- Tilt the mini enough to allow the bottom cover to fall away from the outer case.
- Remove the bottom cover and set it aside.



Step 3 - Fan

- Remove the two 11.3 mm T6 Torx screws securing the fan to the logic board near the antenna plate.



Step 4

- Lift the ear of the fan nearest the RAM up off the standoff secured to the outer case.



Step 5

- Lift the fan out of the mini for enough clearance to access its connector.
- Carefully pull the fan cables upward to lift the fan connector up out of its socket on the logic board.
- Remove the fan.



Step 6 - Cowling

- Remove the single 3.5 mm T6 Torx screw securing the cowling to the heat sink.



Step 7

- Lift the cowling from the end nearest the antenna plate.
- Rotate the cowling away from the outer case and remove it from the mini.



Step 8 - Antenna Plate

- Remove the following screws securing the antenna plate to the mini:
 - Two 6.6 mm T8 Torx screws
 - Two 5.0 mm T8 Torx or 2.0 mm Hex screws (either will work)



Step 9

- Slightly lift the antenna plate from the end closest to the RAM.
- Carefully pull the antenna plate straight away from the circular rim of the outer case.
- Do not remove the antenna plate yet. It is still attached to the AirPort/ Bluetooth board.





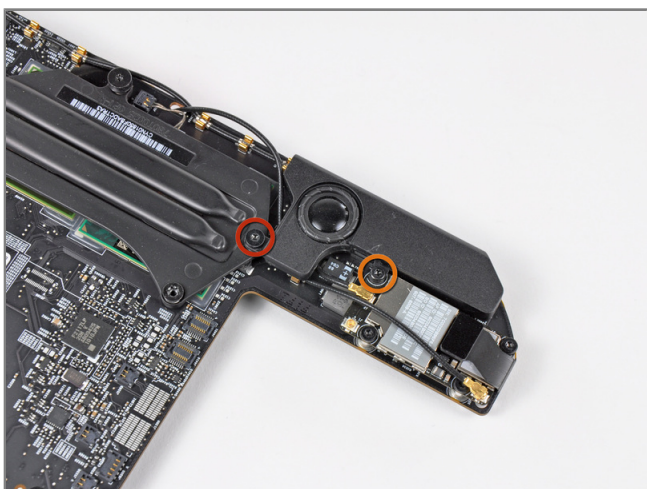
Step 10

- Use the tip of a spudger to carefully pry the antenna connector up off the AirPort/Bluetooth board.



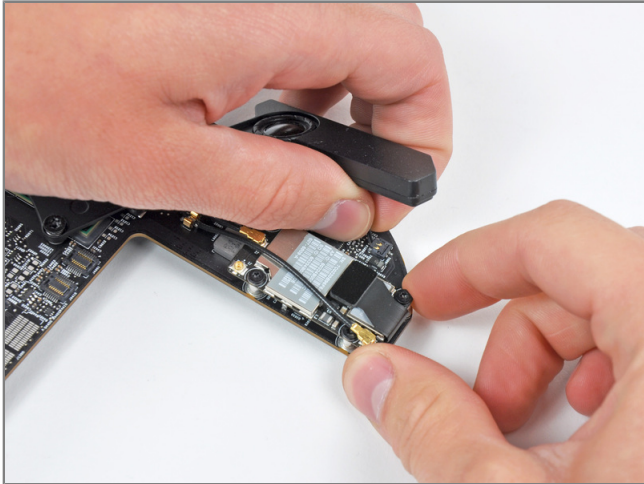
Step 11

- Remove the antenna plate from the mini.



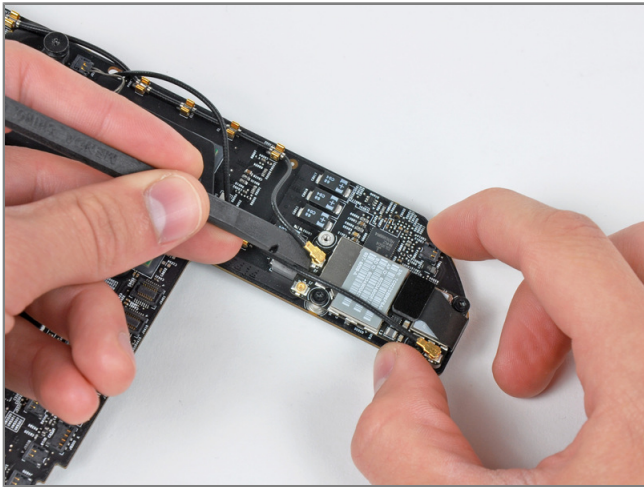
Step 12 - Speaker

- Remove the following two screws securing the speaker to the logic board assembly:
 - One 4.2 mm T6 Torx
 - One 3.7 mm T6 Torx



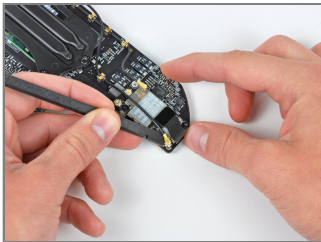
Step 13

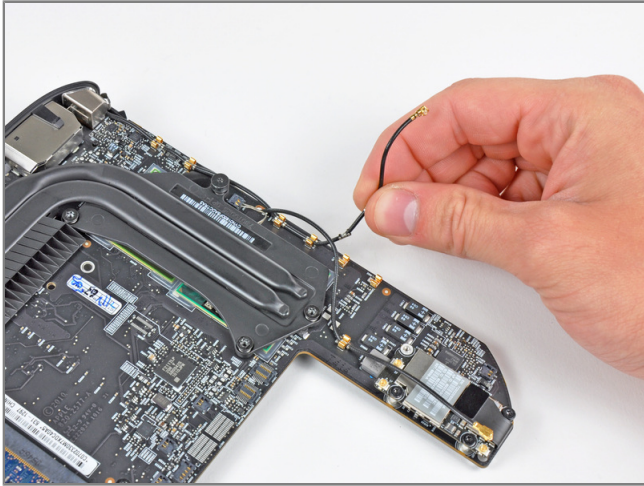
- Carefully lift the speaker wires upward to lift the speaker connector up and out of its socket on the logic board.



Step 14 - I/O Bezel

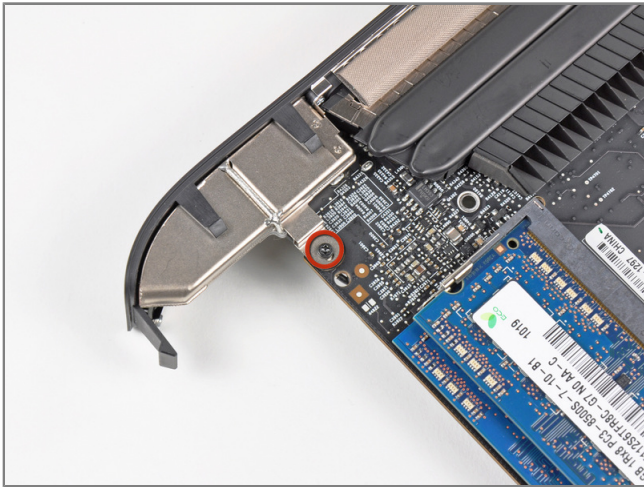
- Use the flat end of a spudger to pry the antenna connectors up off the AirPort/Bluetooth board.





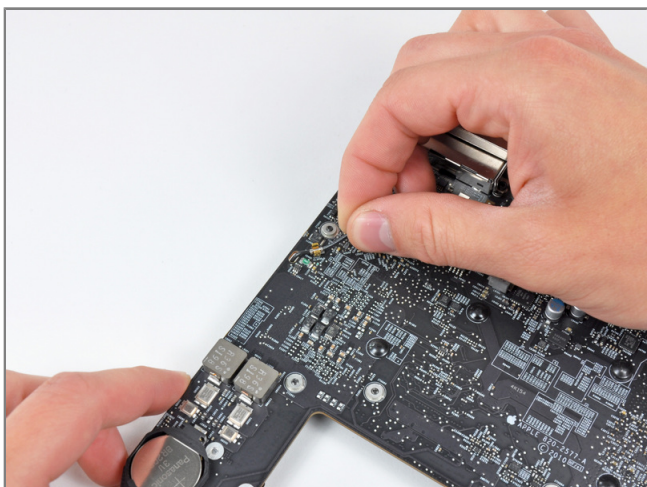
Step 15

- De-route **both** antenna cables from the clips securing them to the top side of the logic board.
- Be careful when removing the cables from their retaining clips, as the thin metal contacts crimped to the antenna cables can be easily torn off. If any contacts become separated from the antenna cables, use a pair of pliers to gently crimp them back into place.



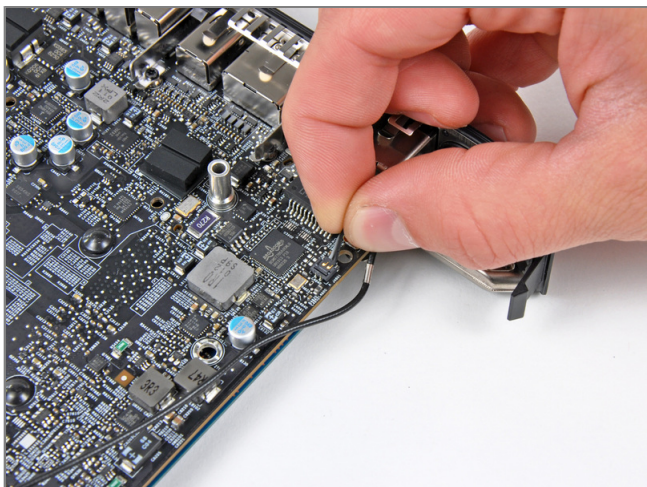
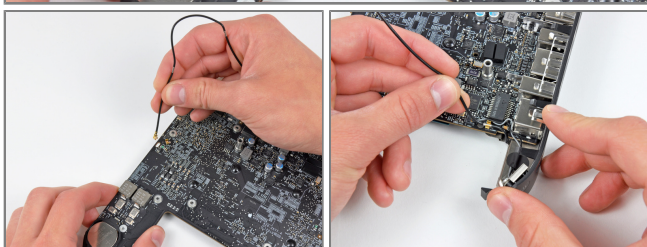
Step 16

- Remove the single 2.6 mm T6 Torx screw securing the I/O bezel to the logic board near the RAM.



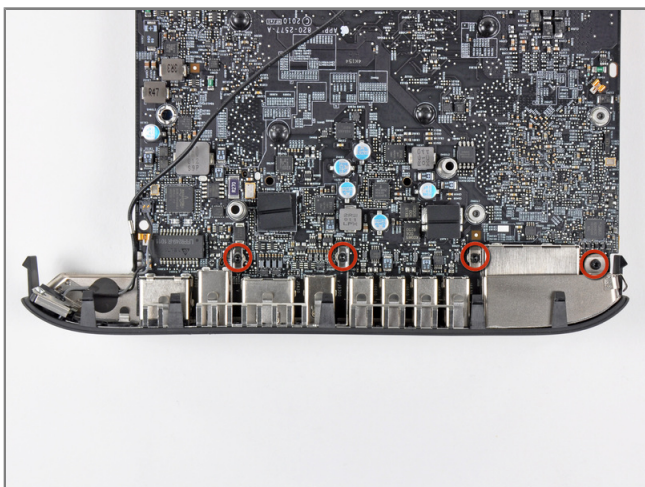
Step 17

- Carefully un-clip the antenna from the logic board near the PRAM battery.
- Gently de-route the antenna cable through the hole in the logic board.
- De-route the antenna cable from the clips on the logic board near the I/O bezel.



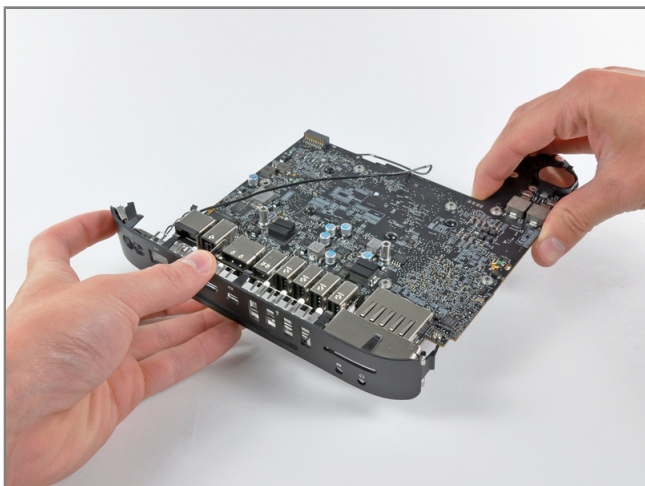
Step 18

- Lift the power button cables upward to gently pull the power button cable up and out of its connector on the logic board.



Step 19

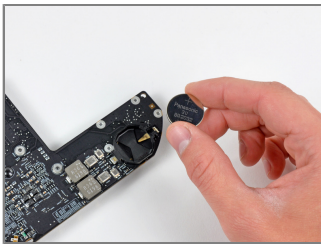
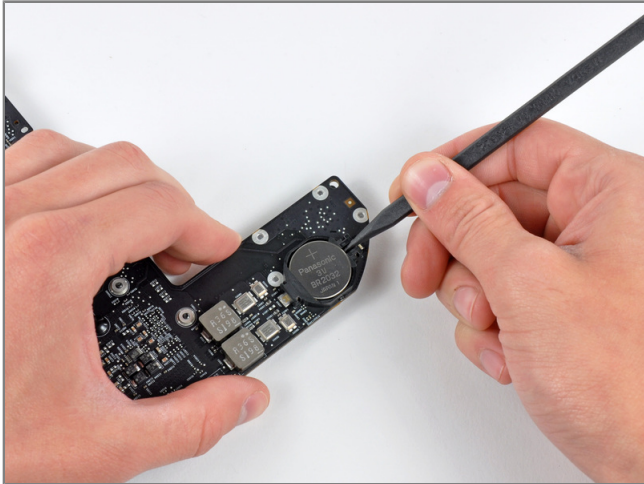
- Remove the four 2.6 mm T6 Torx screws securing the I/O bezel to the logic board.



Step 20

- Pull the I/O bezel away from the logic board, minding any cables that may get caught.
- Try not to handle the small steel EMI fingers on the logic board and I/O bezel, as oils from your fingers may cause interference issues. Before installing the logic board assembly, clean the EMI fingers to remove any oils transferred during the removal process.





Step 21 - Logic Board Replacement

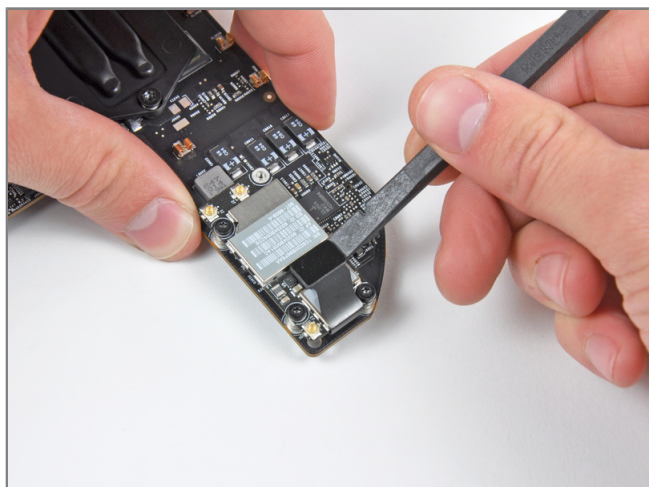
- Use the tip of a spudger to carefully pry the PRAM battery up and out of its holder on the logic board.
- Remove the PRAM battery and set it aside.



Step 22

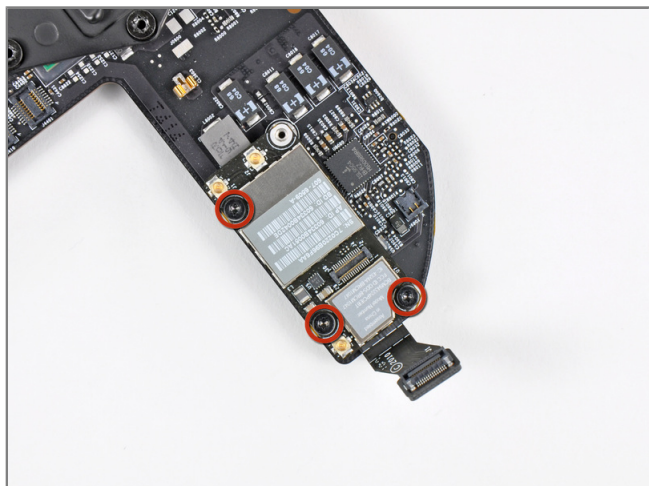
- Release the tabs on each side of the RAM chip by simultaneously pushing each tab away from the RAM.
- These tabs lock the chip in place and releasing them will cause the chip to "pop" up.
- After the RAM chip has popped up, pull it straight out of its socket.
- Repeat this process if a second RAM chip is installed.





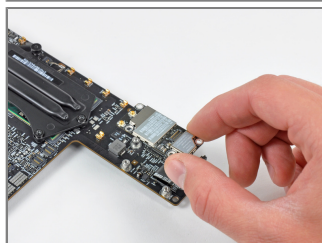
Step 23

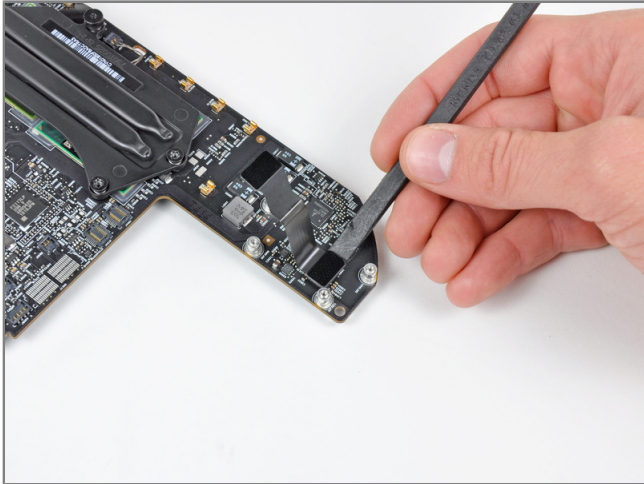
- Use the flat end of a spudger to pry the AirPort/Bluetooth ribbon cable connector up off the AirPort/Bluetooth board.



Step 24

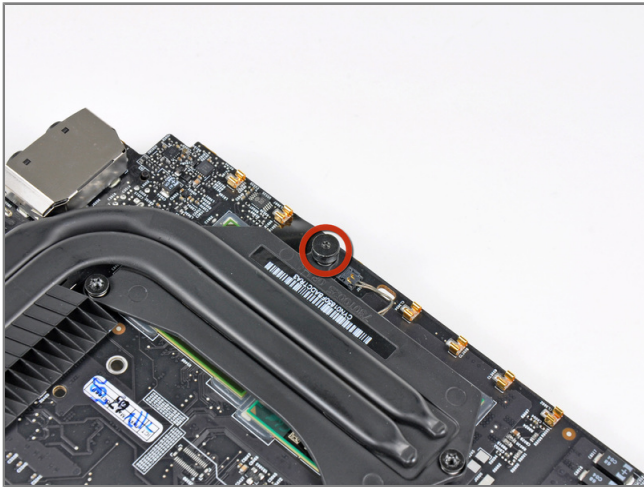
- Remove the three 2.6 mm T6 Torx screws securing the AirPort/Bluetooth board to the logic board.
- Remove the AirPort/Bluetooth board and set it aside.





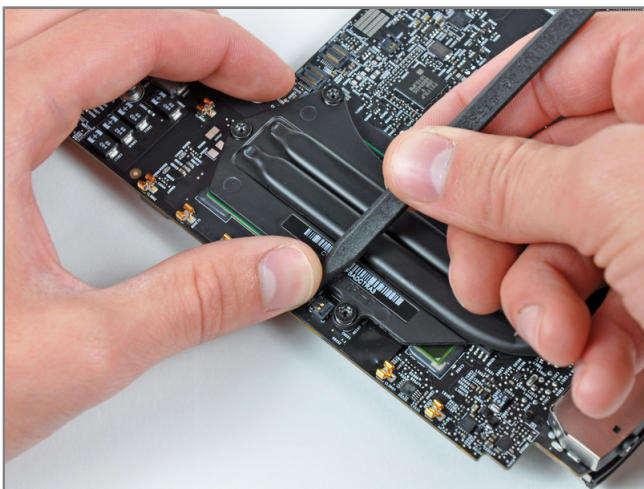
Step 25

- Use the flat end of a spudger to pry the AirPort/Bluetooth ribbon cable up off the logic board.
- Remove the AirPort/Bluetooth ribbon cable.



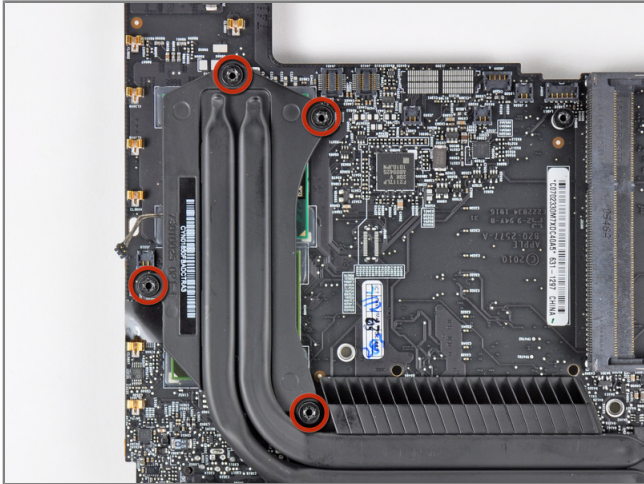
Step 26

- Remove the single 5 mm T6 Torx standoff from the heat sink.



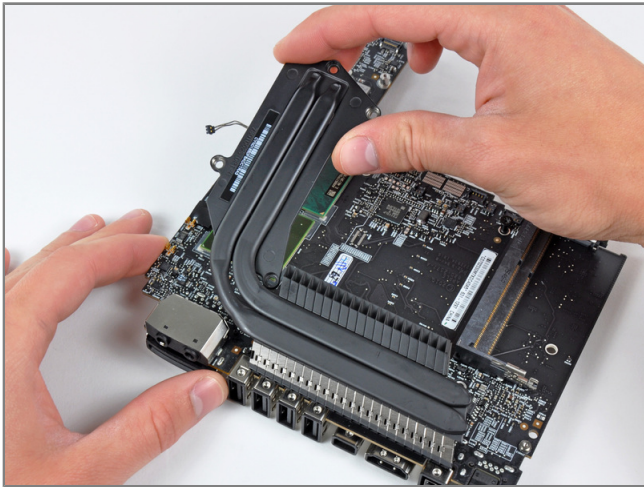
Step 27

- To disconnect the heat sink thermal sensor, pinch its cables between your thumb and a spudger and pry the spudger upward to lift the connector up and out of its socket on the logic board.



Step 28

- Remove the four 8.5 mm T8 Torx screws securing the heat sink to the logic board.
- Keep track of the springs held beneath each of the heat sink screws.



Step 29

- Carefully lift the heat sink off the logic board, minding the thermal sensor cable that may get caught.
- If the heat sink appears to be stuck to the logic board after removing all six screws, it may be helpful to use a spudger to separate the two components.
- If you need to mount the heat sink back onto the logic board, we have a [thermal paste guide](#) that makes replacing the thermal compound easy.

