

# NuPower Replacement Battery Kits

13-inch MacBook Pro Retina Late 2012 to Early 2013

13-inch MacBook Pro Retina Late 2013 to Early 2015

15-inch MacBook Pro Retina Mid 2012 to Early 2013

15-inch MacBook Pro Retina Late 2013 to Mid 2015

## Installation Guide



Kit for 13-inch MacBook Pro Retina Late 2012 to Early 2013 shown

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# Introduction

## Package Contents

### 13-inch MacBook Pro Retina Late 2012 to Early 2013 Kits

- NewerTech NuPower Battery for MacBook Pro
- Screwdriver(s)
- Safety glasses
- Plastic cards
- Nylon probe / pry tool
- Plastic syringe
- Adhesive remover
- Nitrile gloves
- Procedure towel
- Printed Safety Notice

### 13-inch MacBook Pro Retina Late 2013 to Early 2015

- NewerTech NuPower Battery for MacBook Pro
- Screwdriver(s)
- Safety glasses
- Plastic cards
- Nylon probe / pry tool
- Plastic syringe
- Adhesive remover
- Nitrile gloves
- Procedure towel
- Printed Safety Notice

### 15-inch MacBook Pro Retina Mid 2012 to Early 2013

- NewerTech NuPower Battery for MacBook Pro
- Screwdriver(s)
- Safety glasses
- Plastic cards
- Nylon probe / pry tool
- Plastic syringe
- Adhesive remover
- Nitrile gloves
- Procedure towel
- Printed Safety Notice

### 15-inch MacBook Pro Retina Late 2013 to Mid 2015

- NewerTech NuPower Battery for MacBook Pro
- Screwdriver(s)
- Safety glasses
- Plastic card(s)
- Nylon probe / pry tool
- Plastic syringe
- Adhesive remover
- Nitrile gloves
- Procedure towel
- Printed Safety Notice

## Important Safety Information

Please read the entire contents of the printed safety insert before proceeding with the battery replacement process!

**NOTICE:** THE PROCEDURES IN THIS GUIDE ARE COMPLEX. WE STRONGLY RECOMMEND PROFESSIONAL INSTALLATION!

OWC is not responsible for and expressly disclaims any liability for any damage or injury resulting from your performing the procedures depicted in this guide, including but not limited to, damage to any property and injury to any person. Before beginning the battery replacement process, drain the battery until the computer shuts down in order to reduce the flammable and burn hazards associated with batteries.

It is also recommended that you use a static-free work surface.

## About This Manual

The images and descriptions may vary slightly between this guide and the unit shipped. Please visit the product web page for the most recent product information and installation videos.

## 13-inch MacBook Pro Retina Late 2012 to Early 2013

1. To help protect the screen from potential adhesive remover spills, place the cloth that came with your kit over the keyboard, then close the lid.



2. Flip the computer over and remove the two highlighted pentalobe screws near the hinge.



3. Remove the remaining eight pentalobe screws, shown below.



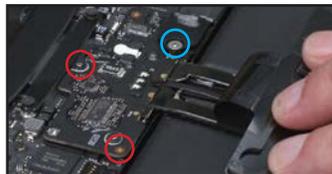
4. Remove the bottom cover.



5. To disconnect the battery, peel back the label shown at right in order to access the Torx T6 screws holding the battery board in place.



6. First, remove the two black screws (highlighted with red) from the side and top of the board, then remove the silver barrel screw (highlighted with blue) that holds the plastic cover in place.



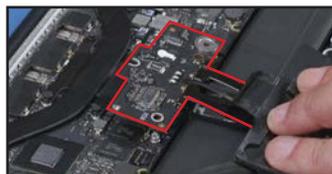
7. Use the nylon pry tool to remove the cover (red) that conceals the flat-topped silver screw.



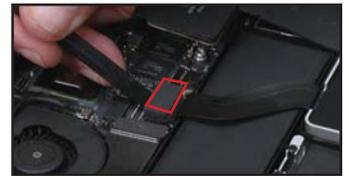
8. Remove the silver screw shown at right.



9. Carefully lift the board up and away.



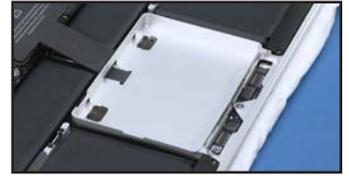
10. Disconnect the SSD cable from its connector on the logic board...



...remove the SSD carrier by first compressing the small handle...



...then lift the drive up and out of the MacBook Pro.



11. Remove the three Torx T5 screws shown at right; these hold the left speaker in place. Please make note of each screw's location. They are different lengths and need to be re-affixed in the same locations later.



12. Lift the speaker assembly up, and rotate it so that it sits out of the way.



13. Remove the three Torx T5 screws securing the top part of the battery.



14. Remove the three Torx T5 screws which hold the right speaker in place (opposite corner). Note each screw's location. They are different lengths and need to be re-affixed in the same locations later.



15. Lift the speaker assembly up, and rotate it so that it sits out of the way.



16. Remove the three Torx T5 screws securing the top part of the battery (opposite side).

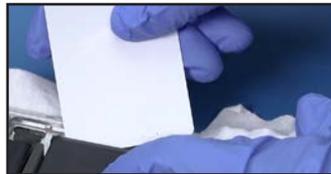


The upcoming Steps require the use of adhesive remover. Be sure to work in a well-ventilated area, and use the protective glasses and gloves included in your kit. Read the printed safety insert for more information.

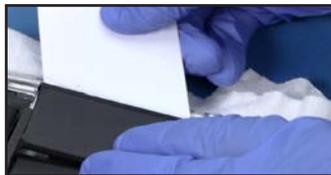
17. Using the syringe included in the kit, apply about a quarter of a milliliter of adhesive remover under one of the outer battery cells and let it sit for about a minute.



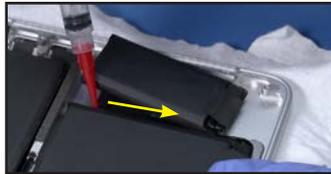
18. Then, work one of the plastic cards underneath the battery cell...



...slicing through the weakened adhesive strips until the cell becomes detached



19. Once the first cell is free, hold it out of the way using the syringe...



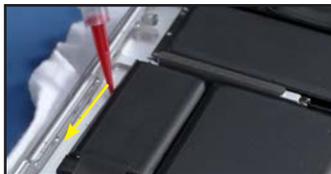
...then repeat the process from Steps 17 and 18 on the neighboring cell. Try to use as little adhesive remover as possible.



20. Once both cells are loose, set them on one of the plastic cards to prevent them from re-adhering to the surface of the computer.



21. Using the syringe, apply about a quarter of a milliliter of adhesive remover under the outer battery cell on the opposite side of the computer; let it sit for about a minute.



22. Similar to Step 18, work one of the plastic cards underneath the battery cell, slicing through the adhesive strips until the cell becomes detached.



23. Repeat the process on the neighboring cell. Try to use as little adhesive remover as possible.



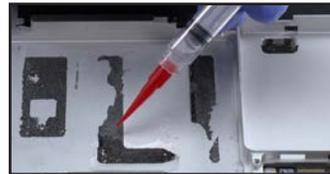
24. Once both cells are loose, set them on one of the plastic cards to prevent them from re-adhering to the surface of the computer.



25. Lift the battery up and out of the chassis, then set it aside.



26. Remove the remaining adhesive from the battery compartment so that the new one has a clean surface to adhere to. To do this, use a few drops of the adhesive remover and the nylon pry tool to scrape it up, then peel and remove the rest with your fingers.



27. Wipe up the extra adhesive remover and let the chassis sit for about half an hour to ensure any liquid has evaporated.

28. Your new battery may come with a label attached the board / power connector. If so, peel the label off then set the board aside. If the connector is a separate piece, go to the next Step.



29. Peel off the paper backing covering the adhesive on each side of the battery.



30. Set the battery in place; make sure it lays flat.



31. Next, re-affix the screws you removed in Steps 13 and 16 to help hold it in place. You may need to adjust the battery's position slightly so that the holes are properly aligned as you affix each screw.



32. Set the speaker assemblies that you removed back in Steps 12 and 15 back into place...



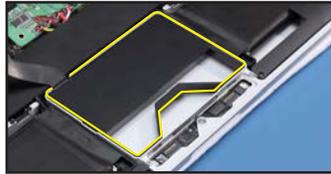
...make sure the assemblies and wires lay flat in their respective channels.



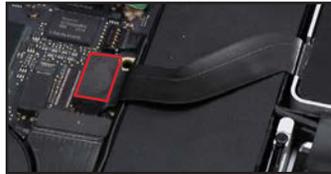
33. For each speaker assembly, re-affix the screws that were removed in Steps 11 and 14, in their respective locations.



34. Set the SSD carrier (highlighted in yellow) back into place.



35. Reattach the SSD cable to its connector on the logic board.



36. Align the hole on the corner of the green battery board with the white anchor pin on the logic board, then set the battery board flat.



37. Re-affix the silver, flat headed Torx T6 screw in the metal-lined hole.



38. Re-affix the cover for the flat-headed screw, then secure it with the silver barrel screw.



39. Re-affix two Torx T6 screws that you removed in Step 6. Screw locations shown in red.



40. Whether it came separately or attached to the battery, you'll now need to peel any paper backing off of the PCB cover label and set it into place so that it is covering the battery connection and wires.



41. Set the cover back in place, making sure all edges sit flush with the computer's chassis.



42. Re-affix the two shorter center screws along the hinge edge first. These screws were originally removed in Step 2.



43. Re-affix the remaining 8 screws around the edges of the cover.



This completes the battery installation process. You can now turn the laptop over, open the screen and remove the cover before you begin charging and conditioning the battery.

# 13-inch MacBook Pro Retina Late 2013 to Early 2015

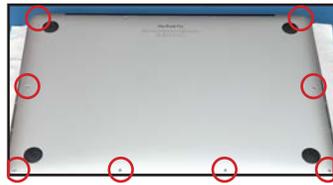
1. To help protect the screen from potential adhesive remover spills, place the cloth that came with your kit over the keyboard of your macbook pro and close the lid. Flip the computer over.



2. Remove the two pentalobe screws near the center of the hinge.



3. Remove the remaining eight pentalobe screws, shown at right.



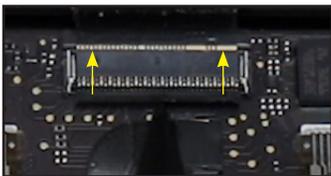
4. Remove the bottom cover.



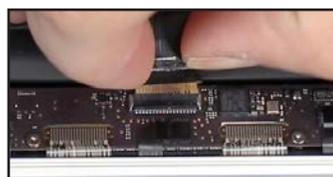
5. Disconnect the battery from the logic board by lifting the connector until it detaches. Afterward, if you're not using a 2015 model, skip ahead to Step 7.



6. Disconnect the trackpad by first lifting the latch on its ZIF connector...



...then, use the nylon probe tool to separate the cable from the battery — enough that you can slide the cable from the connector...



...last, peel the cable free of the battery and set it out of the way.



7. Remove the three screws holding the left speaker assembly in place, then remove the corresponding three screws from the right speaker. Please make note of each screw's location as they are different lengths and will need to be re-affixed in the same locations later.



8. Lift the left and right speaker assemblies out of their channels and lay them back on the logic board. Do not put excessive tension on the wires as you may damage them. Note: the left speaker is shown in the top row.



9. There's a screw holding the battery frame in place near the battery connector which needs to be removed. For early 2015 models, this is the last screw that needs to be removed.



10. For 2013 and 2014 models, there are four additional screws to be removed, two on each side of the center battery cells.

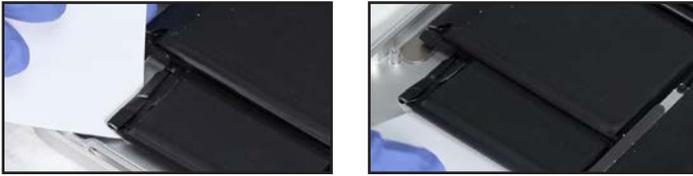


**The upcoming Steps require the use of adhesive remover. Be sure to work in a well-ventilated area, and use the protective glasses and gloves included in your kit. Read the printed safety insert for more information.**

11. Using the syringe included in the kit, apply about a quarter of a milliliter of adhesive remover under one corner of the outer battery cells and let it sit for about a minute.



12. Starting at the corner, work one of the plastic cards underneath the battery cell, slicing through the adhesive strips until the cell detaches. If you need to apply extra adhesive remover, try to use as little as possible.



13. Hold the first cell out of the way, then repeat the process from Step 12 on the neighboring cell. Again, try to use a little adhesive remover as possible.



14. Once both cells are loose, set them on one of the plastic cards to prevent them from re-adhering to the surface of the computer.



15. Using the syringe apply about a quarter of a milliliter of adhesive remover under the outer battery cell on the opposite corner and let it sit for about a minute.



16. Work one of the plastic cards underneath the battery cell, slicing through the weakened adhesive strips until it detaches.



17. Repeat the process from Step 13 on the neighboring cell.



18. Once both cells are loose, set them on one of the plastic cards to prevent them from re-adhering to the surface of the computer.



19. For the center cells, use the syringe to apply about a quarter milliliter of adhesive remover between the two cells and let it sit for about a minute.



20. Work one of the plastic cards between the center cells, slicing through the adhesive strips until it detaches. You may need to use two cards.



21. Work another plastic card under the remaining cell, repeating the same process. If needed you can use an additional small amount of adhesive remover until the cell detaches.



22. Carefully lift the battery unit up and out of the chassis.



23. Remove the remaining adhesive from the battery compartment so that the new one has a clean surface to adhere to. To do this, use a few drops of the adhesive remover and the nylon pry tool to scrape it up, then peel and remove the rest with your fingers.



24. Wipe up any extra adhesive remover and let the computer sit for about half an hour to ensure any residual adhesive remover has evaporated.

25. Peel off the paper backing covering the adhesive on the battery.



26. Set the battery unit in place, making sure it lays flat.



27. Re-affix the screw near the battery connector that helps keep the battery in place.



28. If you have a 2013 or 2014 model, re-affix the other four screws that were removed in Step 10, in the locations shown.



29. Set the left speaker assembly back into place, making sure that its wire is routed under the metal screw post. Secure the speaker with its three screws, making sure to affix each screw in the same location it was removed from in Step 7.



30. Set the right speaker assembly back into place, making sure that its wire is routed under the metal screw post. Secure the speaker with its three screws, making sure to affix each screw in the same location it was removed from in Step 7. NOTE: If you're not using a 2015 model, skip ahead to Step 32.



31. If you have a 2015 model, you can now reattach the trackpad by sliding the cable into its ZIF socket until it's fully seated, then locking it down by pushing its bar flat.



32. Reattach the battery by lining up its connector and pushing it into place.



33. Set the cover back in place, making sure all edges sit flush with the computer's chassis.



34. Re-affix the two shorter center screws along the hinge edge first. These screws were originally removed in Step 2.



35. Re-affix the remaining 8 screws around the edges of the cover.



This completes the battery installation process. You can now turn the laptop over, open the screen and remove the cover before you begin charging and conditioning the battery.

## 15-inch MacBook Pro Retina Mid 2012 to Early 2013

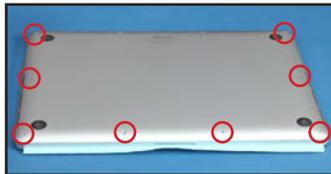
1. To help protect the screen from adhesive remover spills, place the cloth that came with your kit over the keyboard of your macbook pro and close the lid. Flip the computer over.



2. Remove the two pentalobe screws near the center of the hinge.



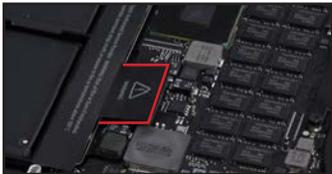
3. Remove the remaining eight pentalobe screws, shown below.



4. Remove the bottom cover.



5. Disconnect the battery by pulling back the cover (red), then lift the connector upward using the included nylon pry tool or a fingernail.



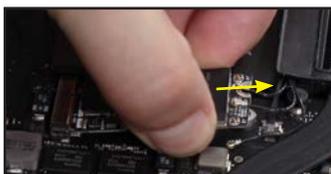
6. Remove the SSD retaining screw, then slide drive out of its socket.



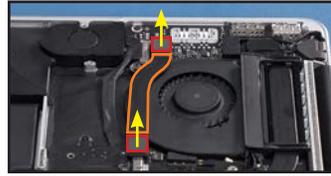
7. Detach the three antenna cables (highlighted) from the wireless card by unsnapping them from the card with the nylon pry tool.



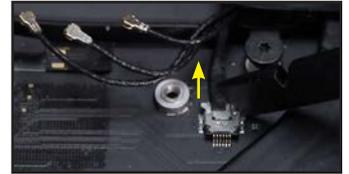
8. Remove the Torx T5 screw (highlighted below-left) that holds the card in place, then slide the card out of its socket.



9. Remove the I/O board cable (orange) by using the pry tool to lift the connectors on each side (red) until they come free. Set the cable aside.



10. Slide the camera cable connector (red) out of its socket by setting the edge of the pry tool against the notch at the back-right of the connector, then gently push the connector straight back toward the fan assembly.



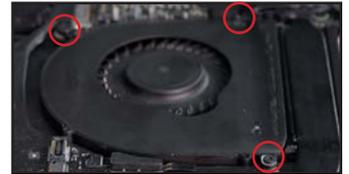
11. Lift the latch for the right fan cable's ZIF connector to disconnect it. Minimal force is required.



12. Peel the rubber cover off the fan, then lift the antenna and camera cables out of the way.



13. Remove the three Torx T5 screws affixed to the fan housing. Note the location of each screw before setting them aside; each is a different length and will need to be re-affixed in the same location later.



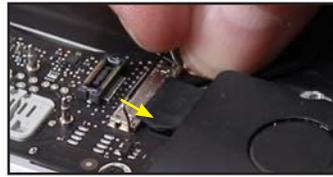
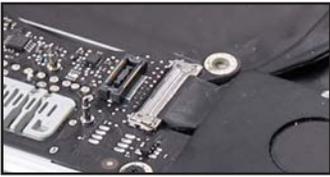
14. Lift the fan and gently unstick the cable from the logic board. The connector should slide out of its socket. Remove the fan and set it aside.



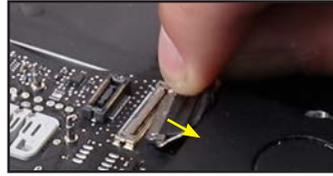
15. To remove the I/O board, first remove the camera and antenna cables from their guides.



16. Next, lift up the latching handle on the lower I/O board cable.



17. Slide the connector out of its slot.



18. Remove the two Torx T5 screws holding the I/O board in place.



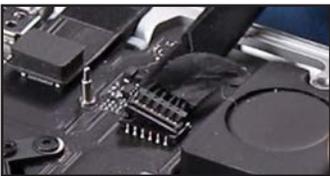
19. Lift the I/O board up and out of the chassis.



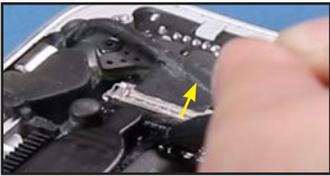
20. Peel the rubber cover off the left fan and set it back, out of the way.



21. Use the nylon pry tool to lift the left speaker cable connector out of its socket and then disconnect the headphone jack connector.



22. Lift the latch on the display data cable.



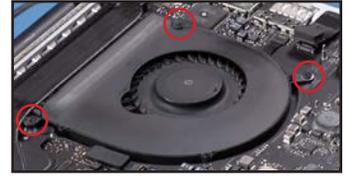
23. Slide the cable out of its socket.



24. Lift the latch for the fan cable's ZIF connector. Minimal force is required.



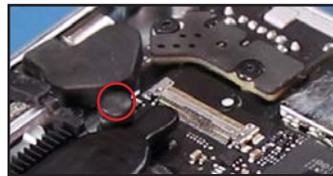
25. Remove the three screws holding the fan in place. Again, each screw is different, so make note of each screw's location. They will have to be re-affixed in the same locations later.



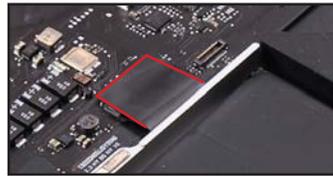
26. As with the prior fan, lift up on the fan and gently unstick the cable from the logic board using the nylon pry tool. The connector should slide out of its socket. Remove the fan housing and set it aside.



27. Remove the rubber cap (red) from the Torx T5 screw near the heat sink, and then remove the screw itself.



28. Pull back the label covering the keyboard connector (red), then use the nylon pry tool to lift the bar, disconnecting the cable; slide the cable free.



29. Detach the trackpad connector by lifting it off the logic board.



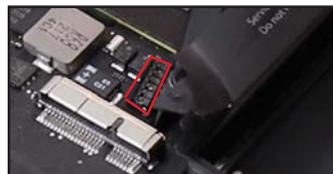
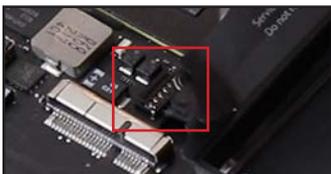
30. Peel back the edge of the label that covers the battery connector and remove the Torx T5 screw near the edge that holds the battery in place.



31. Follow the same procedure from Step 30 with the label and screw on the opposite side of the connector.



32. Lift the battery slightly, then slide the nylon probe tool under the speaker connector cable and lift upward to detach its connector, shown in red.



33. Steps 33-36 cover the removal of the screws that hold the logic board in place. Start with the Torx T5 screw shown at right.



34. Next remove the two screws near the center of the hinge edge.



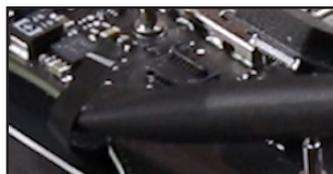
35. Then remove the screw near the memory.



36. Last, remove the silver screw near the back-right corner of the chassis.



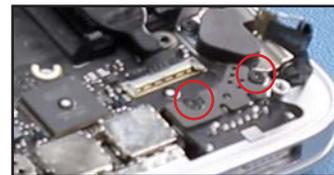
37. Lift the bar of the microphone's ZIF socket and slide the cable free.



38. Lift the keyboard backlight cable connector from its socket.



39. Remove the two Torx T5 screws holding the Magsafe connector in place.



40. Carefully lift the logic board out of the computer chassis.



41. Remove the three right speaker assembly screws (shown in red) then lift it up and out of the chassis.



42. Remove the corresponding screws that hold the left speaker assembly in place, then lift it up and out of the macbook pro.



**The upcoming Steps require working with adhesive remover. Be sure you are working in a well-ventilated area, and use the protective glasses and gloves included in your kit. Read the printed safety insert for more information.**

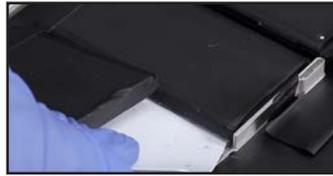
43. Using the syringe included in the kit, apply about a quarter of a milliliter of adhesive remover under one corner of the outer battery cells and let it sit for about a minute.



44. Starting at a corner, work one of the plastic cards underneath the battery cell, slicing through the weakened adhesive strips until it detaches. You can use more adhesive remover if you need to, but try and use as little as possible.



45. Hold the first cell out of the way, then repeat the process on the neighboring cell. Try to use a little adhesive remover as possible.



46. Once both cells are loose, use one of the plastic cards to hold them up from the surface of the chassis so they don't accidentally re-adhere.



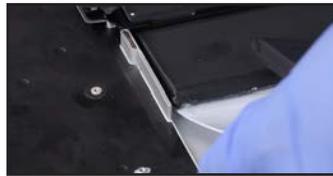
47. Using the syringe apply about a quarter of a milliliter of adhesive remover under the outer battery cell on the opposite side of the computer and let it sit for about a minute.



48. Work one of the plastic cards underneath the battery cell, slicing through the weakened adhesive strips until it detaches.



49. Hold the first cell out of the way, then repeat the process from Steps 47-48 on the neighboring cell.



50. Once both cells are loose, use one of the plastic cards to hold them off the surface of the computer, so they don't accidentally re-adhere.



51. Apply a small amount of adhesive remover along the front edge of the battery cells.



52. Work one of the cards underneath the center cells.



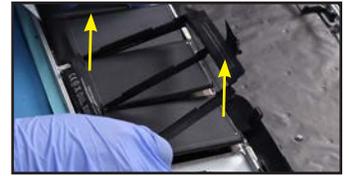
53. Apply about a quarter milliliter of adhesive remover along the base of the exposed card. Allow it to sit for a minute.



54. Use the card to dislodge the remaining adhesive.



55. Once all the cells have been detached, you should be able to lift the whole battery up and out of the chassis.



56. Remove the remaining adhesive in the battery compartment so that the new one has a clean surface to adhere to. First apply a small amount of adhesive remover, then use your nylon tool to scrape it up, until you can peel and remove the rest with your fingers.



57. Wipe up any extra adhesive remover and let the computer sit for about 30 minutes to ensure any residual adhesive remover has evaporated.



58. To reseat the left speaker assembly, place it back into the chassis as shown, then secure it with the three screws you removed in Step 42.



59. Follow the same process to set the right speaker assembly in place.



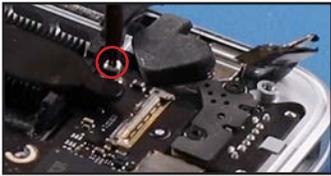
60. Set the logic board back into place, making sure that no cables get trapped underneath it, and that it sits flat.



61. Re-affix the two Torx T5 screws that hold the Magsafe connector in place.



62. Re-affix the longer silver screw near the heat sink and manually reset its rubber cap.



63. Re-affix the silver screw that you removed in Step 36.



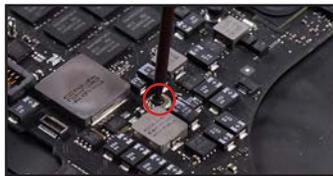
64. Re-affix the smallest logic board screw in the location shown.



65. Re-affix the two largest screws along the hinge edge.



66. The last motherboard screw should be re-affixed in the location shown, near the memory.



67. Set the I/O board into place; make sure that it lays flat without any cables trapped underneath.



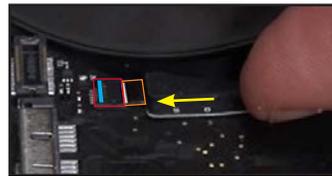
68. Secure the I/O board with its Torx T5 screws, in the locations shown.



69. Attach the lower I/O cable by sliding it into its socket and using the handle to latch it into place.



70. Insert the right fan cable connector (orange) into its ZIF socket (red) and then slide the latch (blue) down with your finger or nylon pry tool.



71. Set the fan flat, and re-affix the Torx T5 screws that you removed in Step 13, using their original locations.



72. Route all the cables along their guide on the I/O board.



73. Next, lay the cables across the fan and slide the camera cable connector into its socket. Use the nylon pry tool to snap it into place.



74. Align the wireless card with its socket, slide it into place, and secure it with the screw you removed in Step 6.



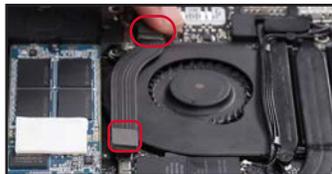
75. Attach the antenna cables by lining up their connectors and snapping them down into place.



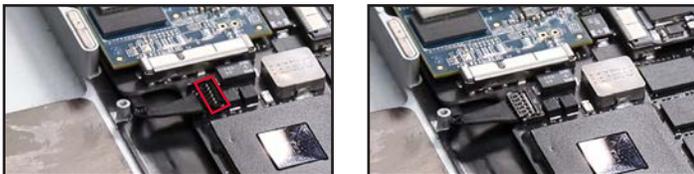
76. Align the SSD card with its socket, slide it into place, and secure it with the SSD mounting screw.



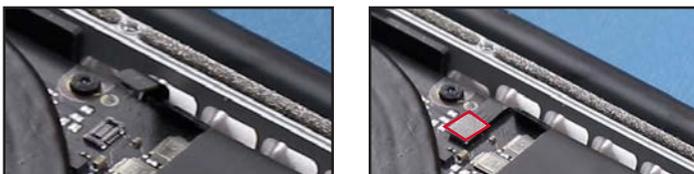
77. Attach the I/O ribbon cable to its connectors by pressing them down into place.



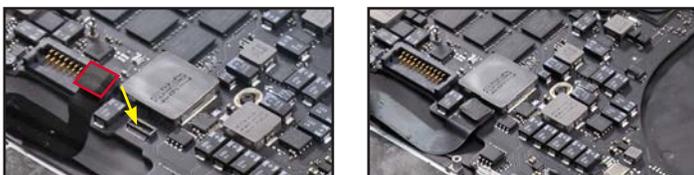
78. Align the right speaker cable over its connector and press down on the small latch using your finger or the nylon pry tool to snap it into place.



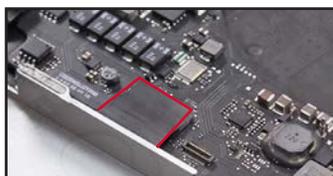
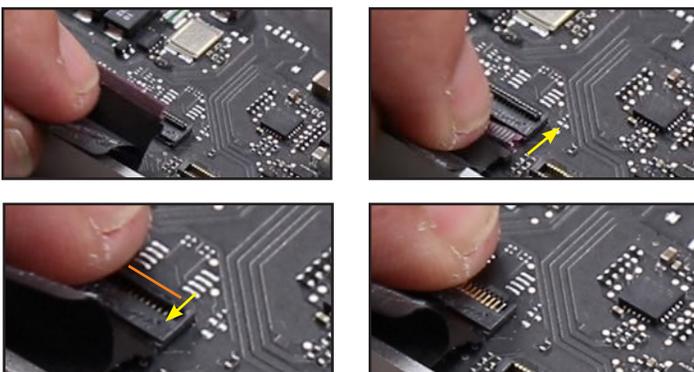
79. Align the keyboard backlight cable with its connector and snap it into place as well.



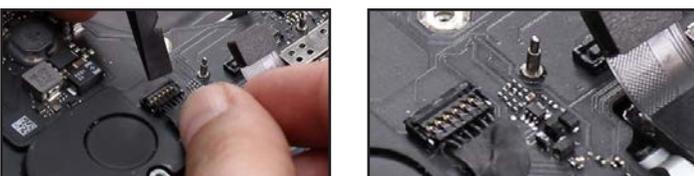
80. Snap the trackpad connector cable into its socket.



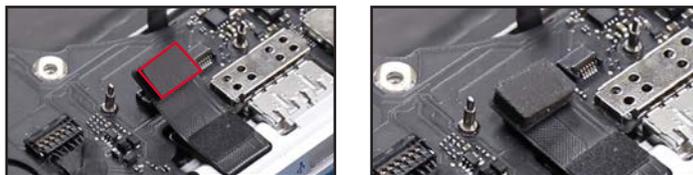
81. Reconnect the keyboard by sliding its cable back into the ZIF connector until it is fully seated (top row), then lock it into place by pushing the lever (orange) in the direction shown (bottom-left). Last, re-adhere the connector cover (red) by pressing it down onto the connector itself.



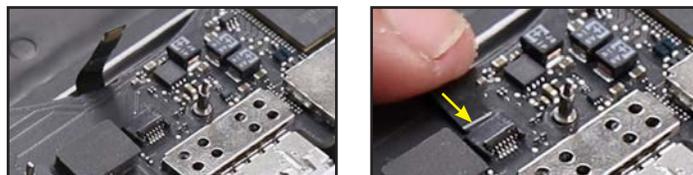
82. Reconnect the left speaker cable by aligning it with its connector, then snapping it into place using your finger or the nylon pry tool.



83. Press the headphone jack connector down onto its socket.



84. Slide the microphone connector into its ZIF socket (top row), then push the connector latch down to secure the connection.



85. Slide the display data cable into its socket (top row) and then when the latch is raised (red, bottom-left), push it down to secure the connection.



86. Slide the left fan cable into its ZIF socket and latch it down, using the same methods shown in Step 70.



87. Set the fan flat then re-affix the Torx T5 screws that you removed in Step 25, using their original locations.



88. Re-attach the two rubber covers that you peeled pack in Steps 12 and 20, in their original locations.



89. Peel off the four white paper adhesive covers on the back of the new battery.



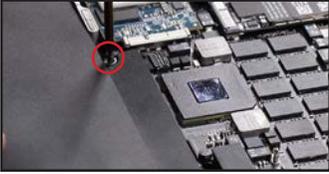
90. Align the battery connector (red) with its socket (yellow); press down.



91. Set the battery into its bay.



92. Replace the two battery board retaining screws, and then press down lightly on the battery to make sure it adheres to the case.



93. Set the bottom cover back into place, making sure it sits flush with the rest of the chassis.



94. Re-affix the two center screws along the hinge edge which you removed in Step 2.



95. Re-affix the remaining eight screws that were removed in Step 3.



**This completes the installation process. You can now remove the protective cloth and begin battery conditioning steps.**

# 15-inch MacBook Pro Retina Late 2013 to Early 2015

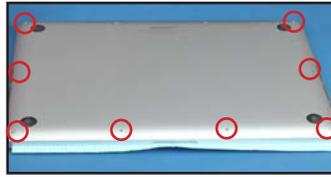
1. To help protect the screen from adhesive remover spills, place the cloth that came with your kit over the keyboard of your macbook pro and close the lid. Flip the computer over.



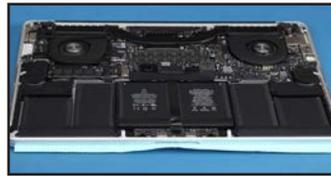
2. Remove the two pentalobe screws near the center of the hinge.



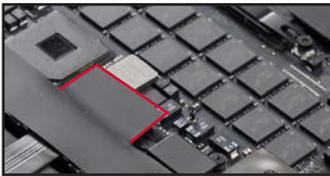
3. Remove the remaining eight pentalobe screws, shown below.



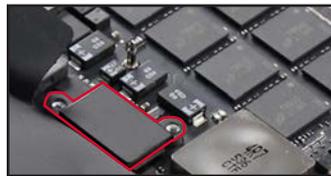
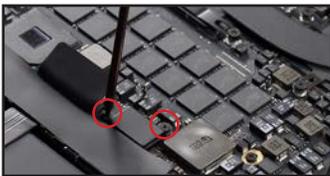
4. Remove the bottom cover and set it aside.



5. Detach the battery; do this by lifting the connector tab as shown.



6. Remove the two Torx T5 screws shown, then remove the trackpad connector cover (below-right).



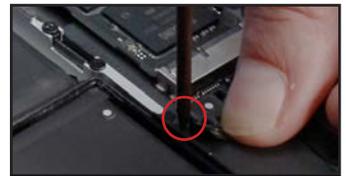
7. Lift up on the trackpad connector to disconnect it.



8. Peel back the edge of the label that covers the battery connector (left) and then remove the Torx T5 screw near the edge that holds the battery in place (right).



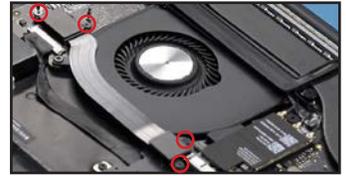
9. Peel back the opposite edge of the same label and remove the corresponding screw.



10. Remove the SSD by first removing the drive mount screw, then slide the drive out of its socket and set it aside.



11. Remove the two I/O board cable covers by first removing the Torx T5 screws that hold them in place.



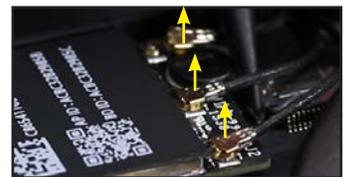
12. Use the nylon pry tool to lift the two connectors until they come free. Once the cable is loose, remove it and set it aside.



13. Lift the rubber cover off of the right fan and set it out of the way.



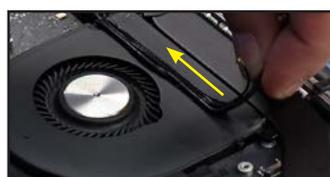
14. Unsnap the antenna cable connectors (red) from the wireless card by carefully lifting them from the card with the nylon probe tool.



15. Remove the Torx T5 screw holding the card in place, then slide the card out of its socket and set it aside.



16. Slide the camera cable connector out of its socket, then lift the bundle of cables up and off the fan, and out from the cable guide on the other side.



17. Remove the three Torx T5 fan screws highlighted below. Note the location of each screw before setting them aside; each is a different length and will need to be re-affixed in the same location later.



18. Use the nylon pry tool to lift the latch on the fan cable's ZIF connector, shown in red.



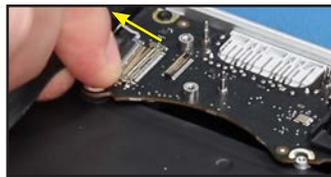
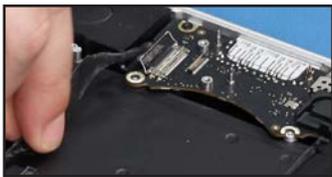
19. Lift the right fan and carefully unstick the cable from the logic board using your fingers, then slide the cable connector out of its socket (right). Now the fan assembly can be removed and set aside.



20. Lift up the latch on the lower I/O board connector.



21. Loosen the connector's cable (top-left) then slide the connector out of its socket (top-right).



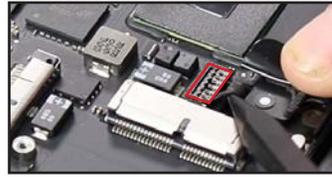
22. Remove the two Torx T5 screws (highlighted) holding the I/O board in place, then lift the I/O board using the nylon pry tool so you can remove the board itself.



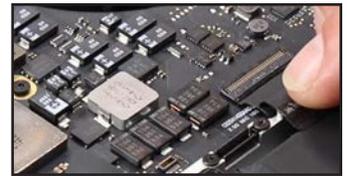
23. Lift the keyboard backlight cable connector from its socket using the nylon pry tool.



24. Use the nylon probe tool to lift the right speaker cable connector from its socket. The connector is located next to the SSD slot (silver component shown below).



25. Peel back the label covering the keyboard connector cable.



26. Lift the bar on the ZIF connector using the nylon pry tool. Once the connector is open, slide the cable free.



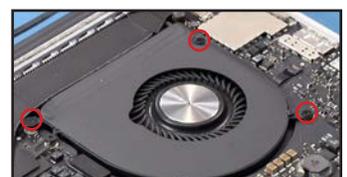
27. Disconnect the left speaker cable using the same method from Step 24.



28. Lift the rubber cover off of the left fan and set it back and out of the way.



29. Remove the three screws holding the left fan in place. As with the previous fan, note the location of each screw; each is a different length and will need to be re-affixed in the same location.



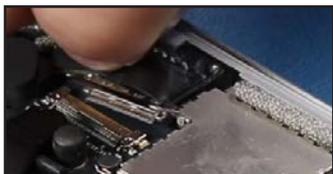
30. Lift the latch on the fan cable's ZIF socket.



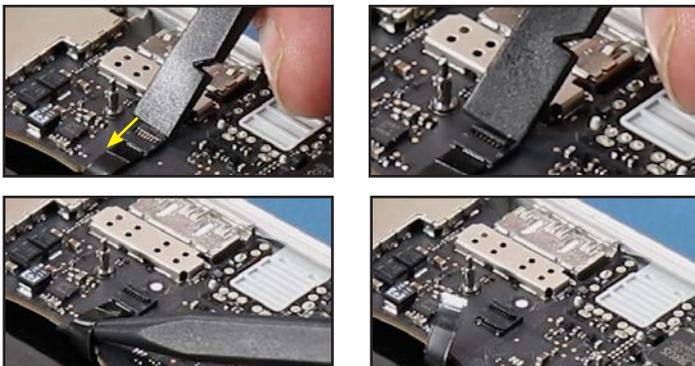
31. Following the same process as in Step 19, lift the fan out of the chassis, then peel the cable up from the logic board if necessary and remove it from its socket.



32. Lift the latch on the display cable (top-right) and slide it out of its socket.



33. Lift the bar of the microphone's ZIF socket then slide the cable free.



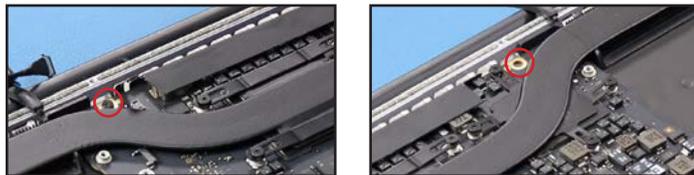
34. Steps 34-39 will remove the screws that hold the logic board in place. Start with the Torx T5 screw shown below.



35. Remove the screw near the memory modules.



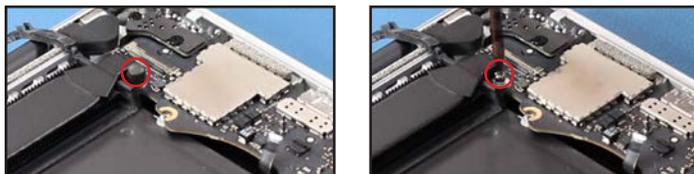
36. Next remove the two screws near the hinge edge.



37. Remove the silver screw near the back-right corner of the chassis.



38. There is a corresponding silver screw near the back-left corner of the chassis, hidden underneath a rubber cover. Lift the cover off the screw using your fingers or the nylon pry tool, then remove the screw.



39. Remove the two screws holding the Magsafe connector in place.



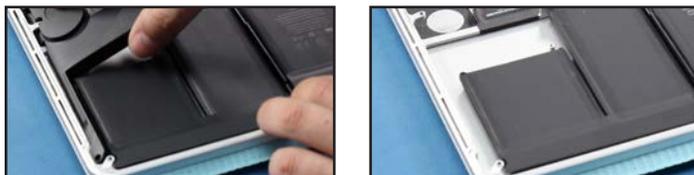
40. Carefully lift the logic board out of the chassis.



41. Remove the three screws shown at right, that hold the right speaker assembly in place.



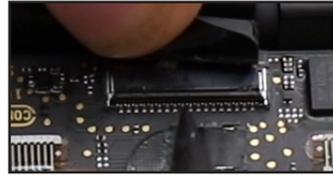
42. Lift the speaker up and out of the chassis.



43. Follow the same method shown in Steps 41 and 42 to remove the speaker assembly on the opposite side of the chassis.



44. Use the nylon pry or probe tool to lift the bar on the trackpad cable's ZIF connector.



45. Peel back the label covering the cable near the battery connector, and gently detach the cable from the battery itself. Use one of the plastic cards to separate the cable from the battery cell if needed.



46. Slide the cable from the ZIF connector that was opened in Step 44, then set the cable aside.



**Some steps that follow require use of adhesive remover. Be sure you are working in a well-ventilated area, and use the protective glasses and gloves included in your kit. Read the printed safety insert for more information.**

47. Using the syringe included in the kit, apply about a quarter of a milliliter of adhesive remover under one corner of the outer battery cells and let it sit for about a minute.



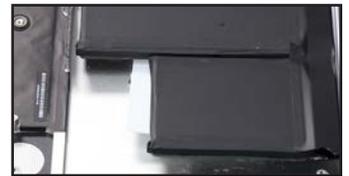
48. Starting at a corner, work one of the plastic cards underneath the battery cell, slicing through the adhesive strips until it detaches. You can use more adhesive remove if you need to, but try and use as little as possible.



49. Holding the first cell out of the way, repeat the process on the neighboring cell. Again, try to use a little adhesive remover as possible.



50. Once both cells are loose, use one of the plastic cards to hold them off the surface of the chassis so they don't accidentally re-adhere to it.



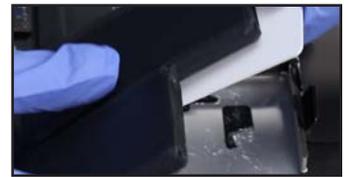
51. Using the syringe apply about a quarter of a milliliter of adhesive remover under the outer battery cell on the opposite side of the computer and let it sit for about a minute.



52. Work one of the plastic cards underneath the battery cell, slicing through the weakened adhesive strips until it detaches.



53. Hold the first cell out of the way, then repeat the process on the neighboring cell.



54. Once both cells are loose, use one of the plastic cards to hold them off the surface of the chassis so they don't accidentally re-adhere to it.



55. For the center two cells, first slide a card in between the batteries, so that it starts to lift one of the cells.



56. Apply about a quarter milliliter of adhesive remover along the base of the card, so it can run under the cell. Allow it to sit for a minute.



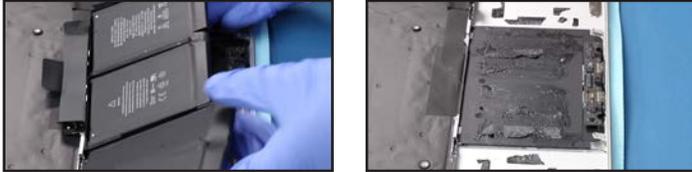
57. Use the card to slice at the adhesive under the battery. You can also use a second card from the other side, but make sure to slice under the battery itself and not under the trackpad that the battery sits on.



58. Repeat the process from Steps 55-57 with the neighboring cell.



59. Once all the cells have been detached, you should be able to lift the whole battery up and out of the chassis.



60. Remove the remaining adhesive in the battery compartment so that the new one has a clean surface to adhere to. To do this simply use a little of the adhesive remover and use your nylon tool to scrape it up until you can peel and remove the rest with your fingers.



61. Wipe up any extra adhesive remover and let the computer sit for about 30 minutes to ensure any residual adhesive remover has evaporated.



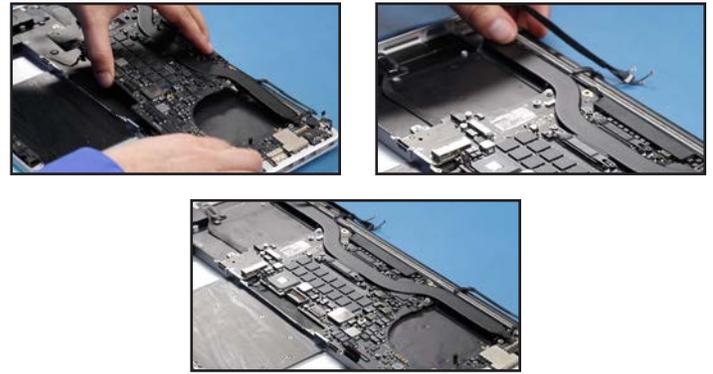
62. Set the right speaker assembly into place, then secure it with the three screws you removed in Step 41.



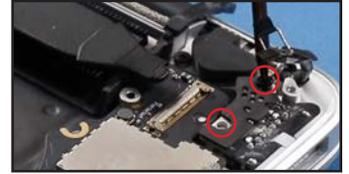
63. Slide the left speaker assembly into place, then secure it with the three screws you removed in Step 43.



64. Set the logic board back into place, making sure it sits flat within the chassis and that no cables get trapped underneath.



65. Re-affix the two Torx T5 screws that hold the Magsafe connector in place.



66. Re-affix the silver screw removed in Step 38, then reset its cap in place.



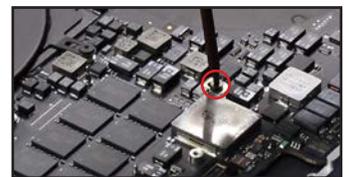
67. Re-affix the corresponding silver screw on the opposite corner, which you removed in Step 37.



68. Re-affix the screws you removed in Step 36 along the hinge edge.



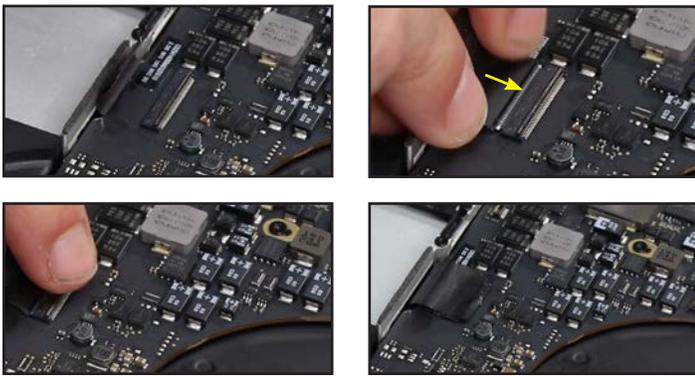
69. Re-affix the screw you removed in Step 35 near the memory.



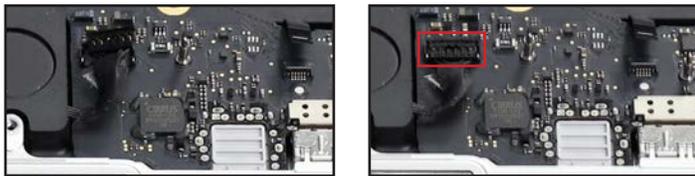
70. Re-affix the screw you removed in Step 34.



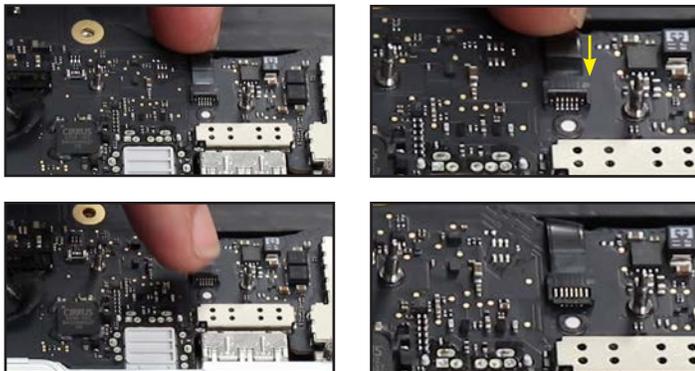
71. Slide the keyboard cable into its ZIF connector until it is fully seated (top row), then lock it into place with the lever on the back. Afterward press the cover down on the connector. It should stick in place.



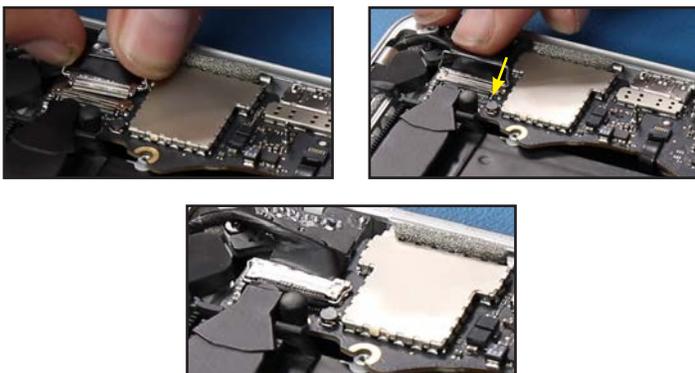
72. Line up the left speaker connector over its socket and press down to snap it in place. The connector may be sitting on edge beforehand due to the cable twisting slightly, as shown here.



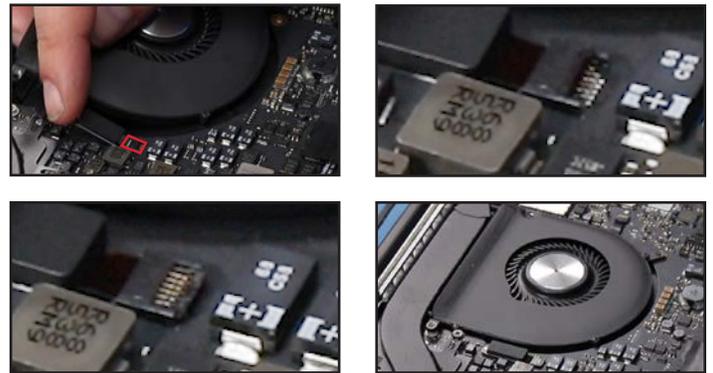
73. Slide the microphone connector into its ZIF socket (top row), then press down on the top of the connector to secure the connection.



74. Slide the display data cable into its socket, then latch it into place.



75. Slide the left fan cable into its ZIF socket (top-left) and then latch it before laying the fan back into place. Then, set the fan assembly in place.



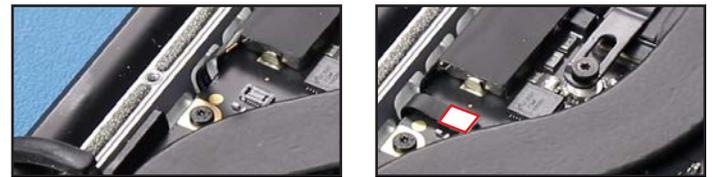
76. Re-affix the three fan assembly screws you removed in Step 29, making sure each is repositioned in its original location.



77. Re-affix the right speaker cable using the same method as in Step 72.



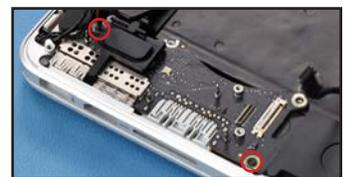
78. Snap the keyboard backlight cable into place.



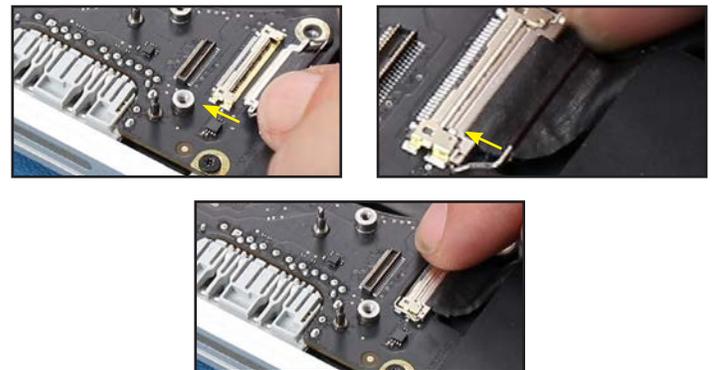
79. Set the I/O board into place, making sure that it lays flat without anything trapped underneath.



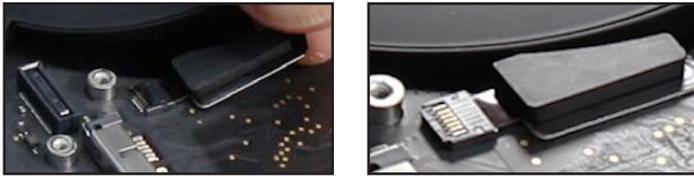
80. Secure it with its two Torx T5 screws that you removed in Step 22.



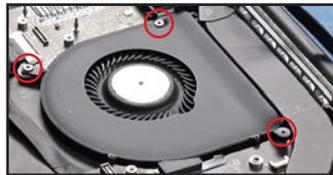
81. Slide the lower I/O cable into its socket, then latch it into place.



82. Using the same process as the previous fan (Step 75), slide the right fan cable into its ZIF socket, latch it down, then set the fan into place.



83. Re-affix the three fan assembly screws you removed in Step 17, making sure each is repositioned in its original location.



84. Slide the camera cable back into its socket, and route all the cables along their guide on the I/O board.



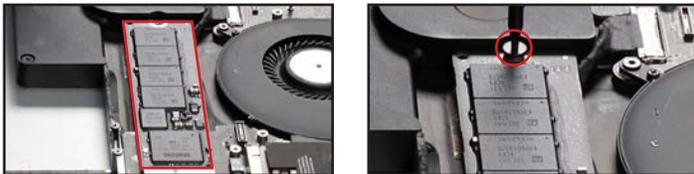
85. Align the wireless card with its socket, slide it into place, and secure it with the screw you removed in Step 15.



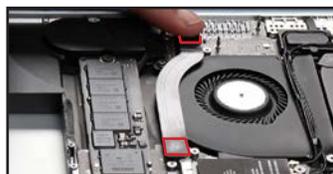
86. Attach the antenna cables by lining up their connectors and snapping them down onto the card.



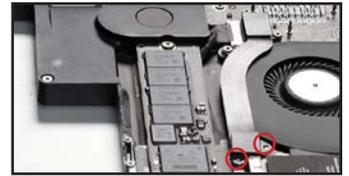
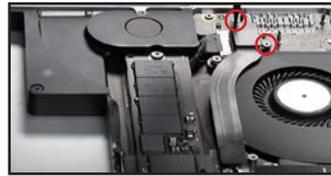
87. Align the SSD card with its socket, slide it into place, and secure it with the screw you removed in Step 10.



88. Attach the I/O ribbon cable to its connectors on the logic board and I/O board.



89. Replace and secure the I/O ribbon cable connector covers using the four screws you removed in Step 11.



90. Flip the two rubber covers that you peeled back in Steps 13 and 28, back into place.



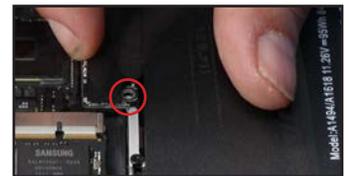
91. Peel off the four white paper adhesive covers on the back of the new battery.



92. Set the battery into place.



93. Push on the battery board and insert one of the retaining screws in the location shown, then fasten it part way to help align the battery.



94. Insert the corresponding screw on the opposite side and then fasten both screws from Step 93 and 94 fully.



95. Slide the trackpad cable from Step 44 back into its ZIF connector, then latch the connector shut with the nylon pry tool.



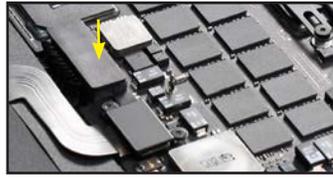
96. Line up the connector on the other end with its socket on the logic board and snap the two together. Re-attach the cable to the new battery using any residual adhesive that may be left on the cable.



97. Reseat the trackpad's connector cover and secure it with the two screws you removed in Step 6.



98. Align the battery connector with its socket and press it down, snapping into place.



99. Set the bottom cover back into place, making sure it sits flush with the rest of the chassis.



100. Re-affix the two center screws along the hinge edge which you removed in Step 2.



101. Re-affix the remaining eight screws that were removed in Step 3.

**This completes the installation process. You can now remove the protective cloth and begin battery conditioning steps.**

## Contacting Technical Support

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+1 (815) 308-7001 (International)

Chat: Monday–Friday, 8am–8pm, Sat. 9am–5pm CT  
[www.newertech.com/support/](http://www.newertech.com/support/)

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