

MCE OptiBay Hard Drive Installation Guide PowerBook G4 17", MacBook Pro 17" & 15"



OptiBay Hard Drive Installation Instructions - 2

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Federal Communications Commission Radio Frequency Interference Statement (FCC)

WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to correct the interference by one of the following measures:

- Reorient or relocate the receiving antennas.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the reseller or an experienced radio/TV technician for help.

Shielded cables and I/O cards must be used for this equipment to comply with the relevant FCC regulations.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Manufacturer's Declaration for CE Certification

We, MCE Technologies, LLC, solemnly declare that this product conforms to the following European standards:
Class B EN60950, EN55022, EN50082-1, EN60555-2

With reference to the following conditions:

73/23/EEC Low Voltage directive

89/336/EEC EMC Directive

Introduction

Congratulations on the purchase of your new MCE Technologies (MCE) OptiBay Hard Drive. This drive will greatly increase the internal storage of your Mac laptop and allow you a new freedom and flexibility never before experienced in a laptop. Whether you use the extra storage for digital video, photos, music, movies or even as a backup for the original drive, you will soon wonder how you got along with just one internal drive for so long.

With all its capabilities and versatility, we're sure that your MCE OptiBay Hard Drive will instantly become an integral part of your day-to-day business and personal computing experience.



MCE OptiBay Hard Drive Installation Guide

MacBook Pro 17" Installation Instructions – Page 9

MacBook Pro 15" Installation Instructions – Page 13

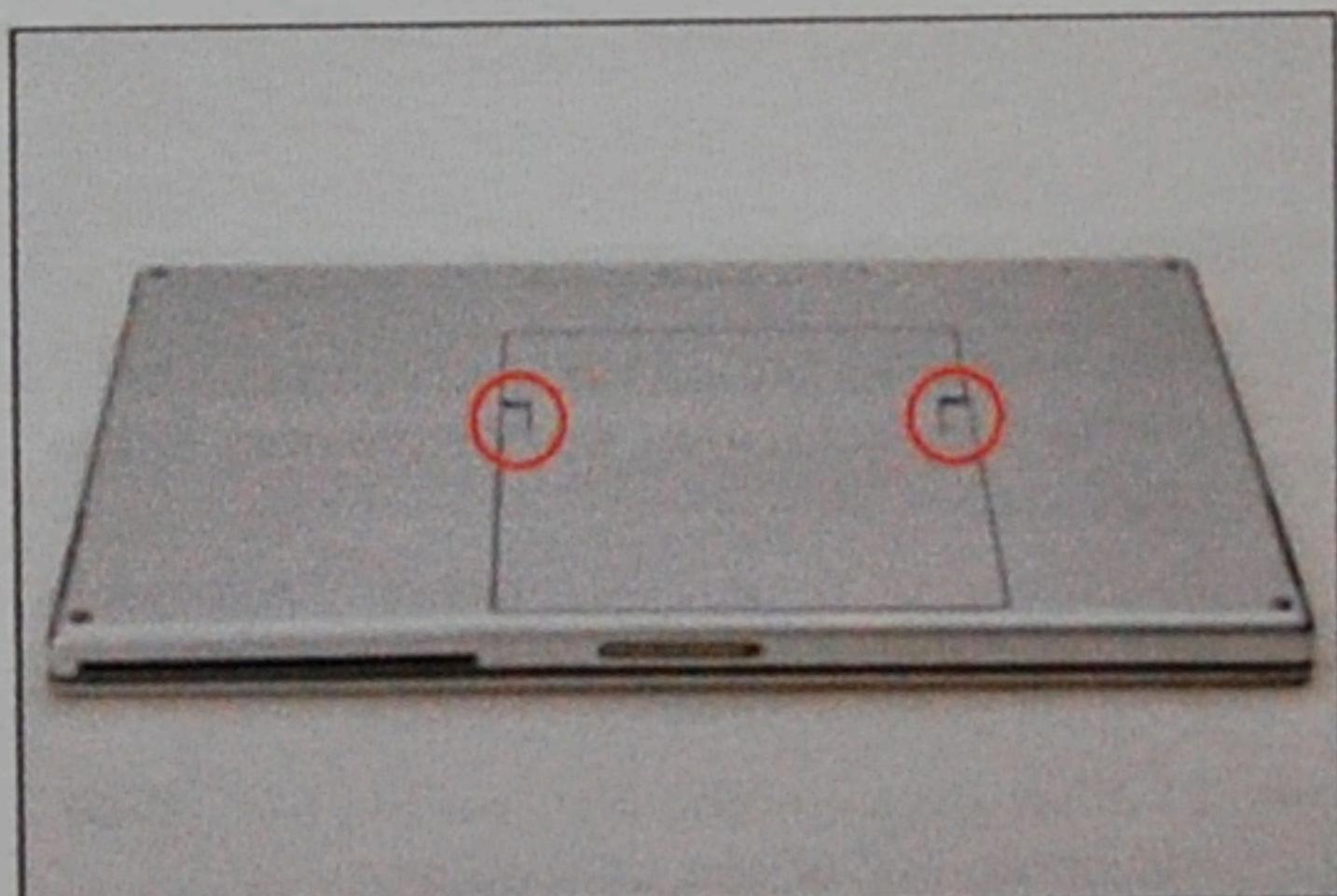
PowerBook G4 17" Installation Instructions Begin Here:

Tools you will need:

Torx T8 Screwdriver (Included)
Phillips #0 Screwdriver (Included)

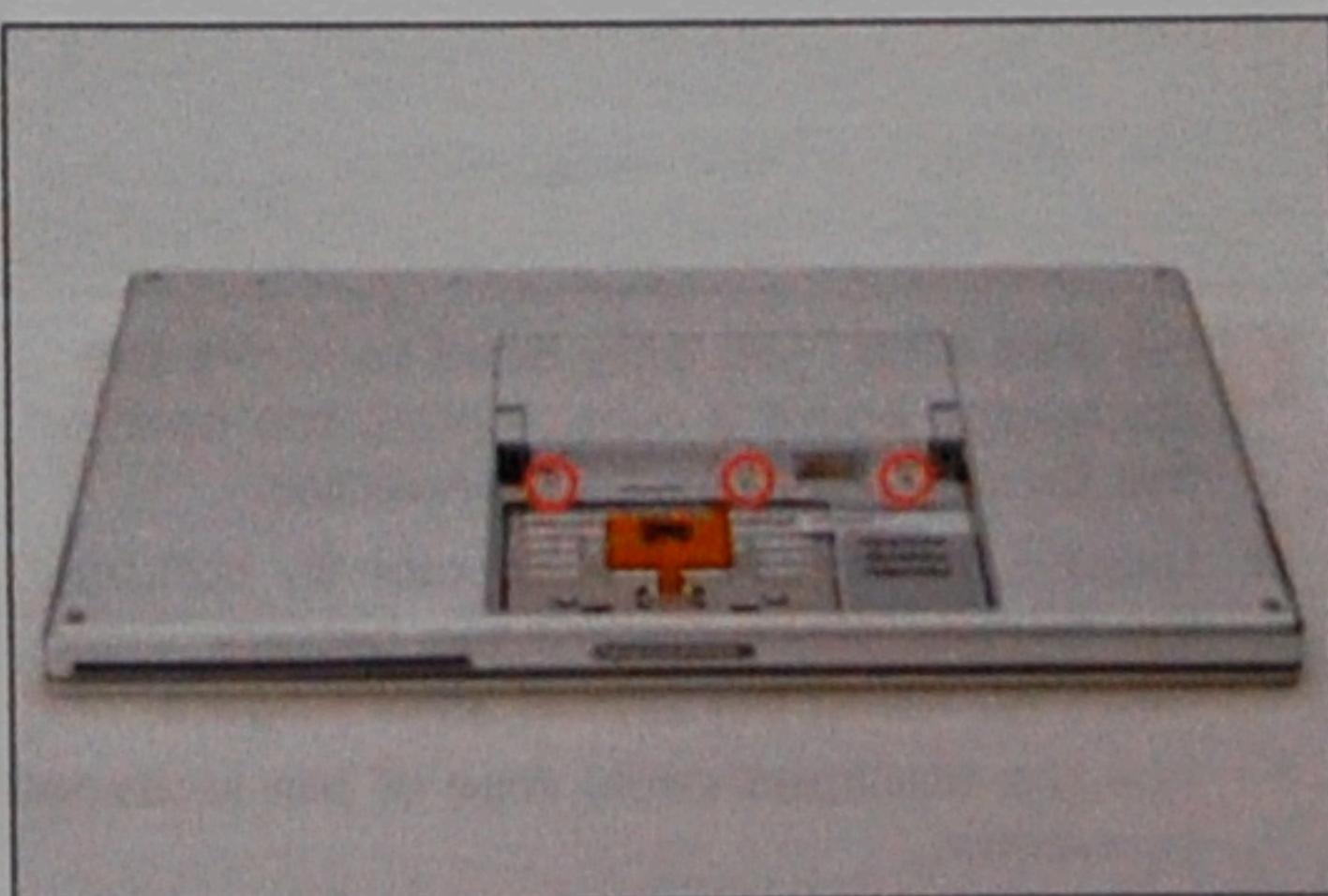
Instructions

Before you begin, place your **PowerBook G4** upside down on a soft cloth and remove the following:



Battery

- Orient the computer so that the side with the line of screws on it is away from you.
- Use your thumbs to push both battery release tabs away so that the edge of the battery lifts up.
- Lift the battery out of the computer.



Upper Case

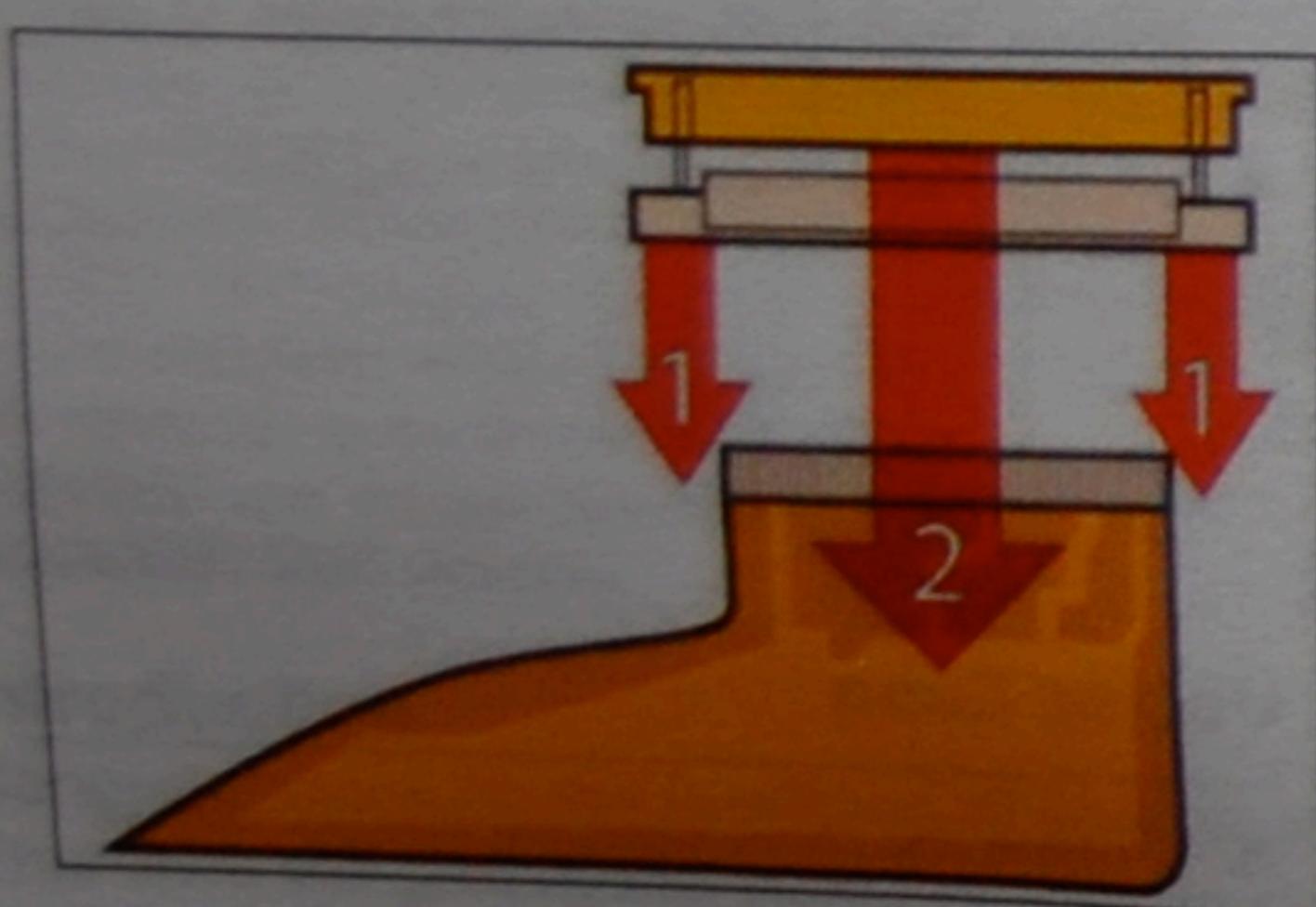
- ✗ Remove the three identical Phillips screws from the memory door.



- Lift the memory door up enough so that you can get a grip on it, and slide it toward you, pulling it away from the casing.

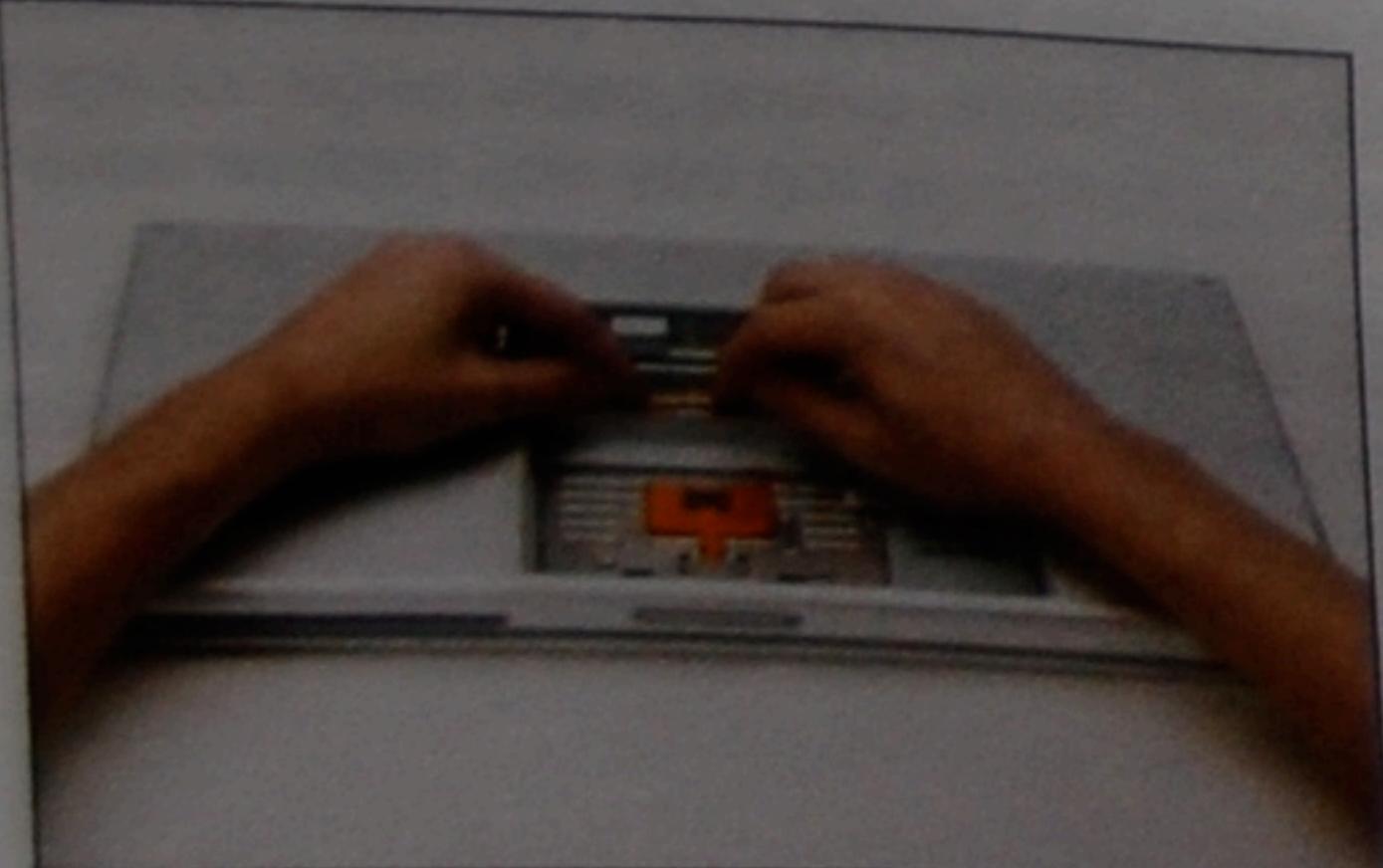


- Release the tabs on each side of the RAM chip at the same time. These tabs lock the chip in place and releasing them will cause the chip to "pop" up.
- Pull the chip directly out from its connectors. If there is a second RAM chip installed, pop it out in the same manner.



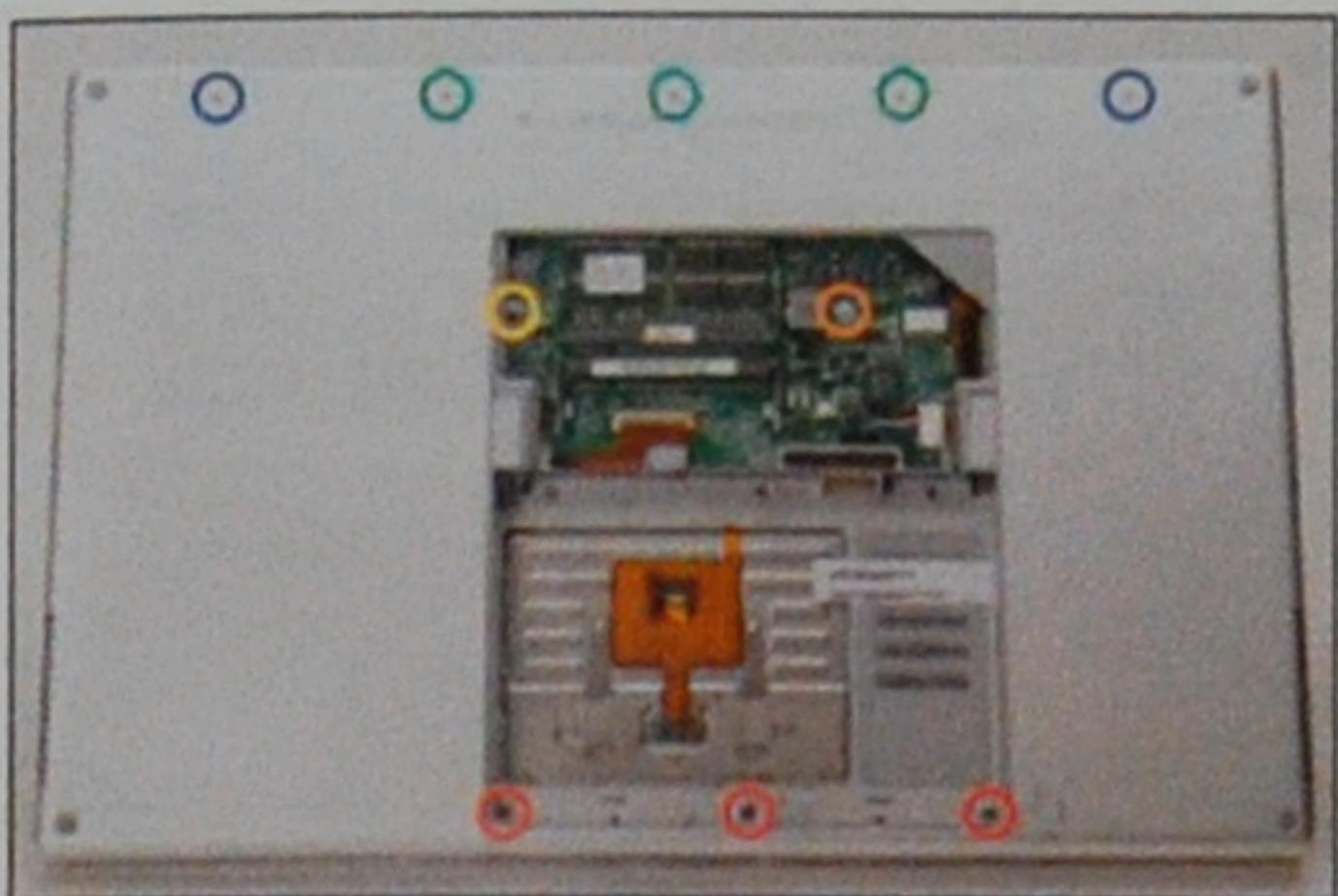
 This is a diagram of the trackpad ribbon clamp connector you will disconnect in the next step.

- 1) With your fingernails, grasp the locking bar on either side and pull up a small amount (about $1/16"$ or 2 mm).
- 2) After disengaging the locking bar, slide the cable out of the connector.



 For this step, you only need to move the connector about 2 mm. Pulling too hard or too far will damage the connector.

- Loosen the trackpad connector by pulling the thinner piece toward the battery housing, using the tips of your fingers.
- Pull the trackpad cable free of the loosened connector.



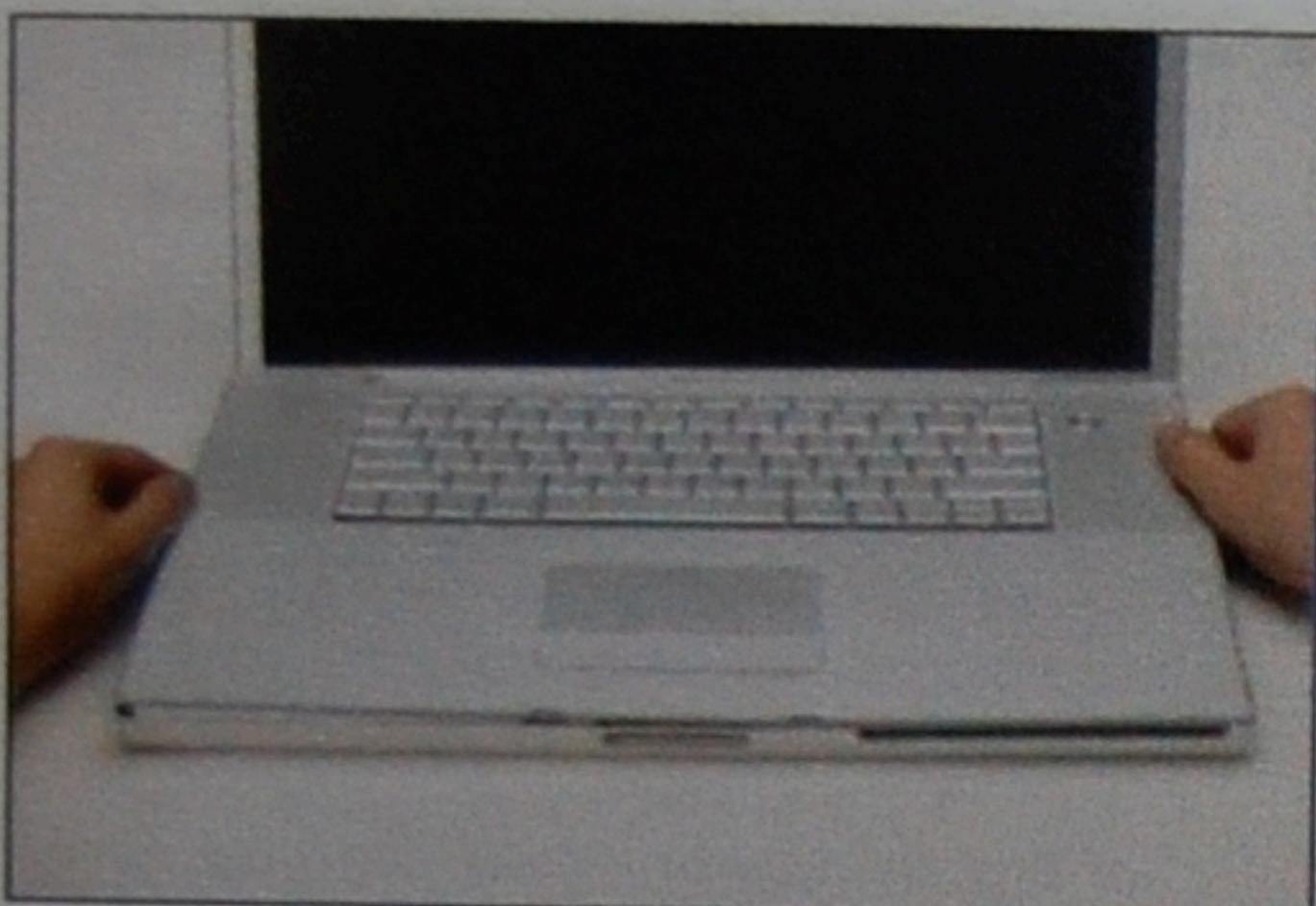
- Remove the following 10 screws from the bottom case:
 - ✖ Three 1.7 mm Phillips from the front edge of the battery compartment.
 - ✖ One 3.9 mm T8 Torx to the right of the memory card.
 - ✖ One 6.9 mm T8 Torx at the left edge of the memory compartment.
 - ✖ Three 12.4 mm Phillips from the center of the row of screws along the back edge of the case.
 - ✖ Two 15.1 mm Phillips, one from either end of the row of screws along the back edge of the case.



- Turn the computer over and rotate it so that the DVI port faces you.
 - ✖ Remove the four identical Phillips screws spread along this edge of the case.

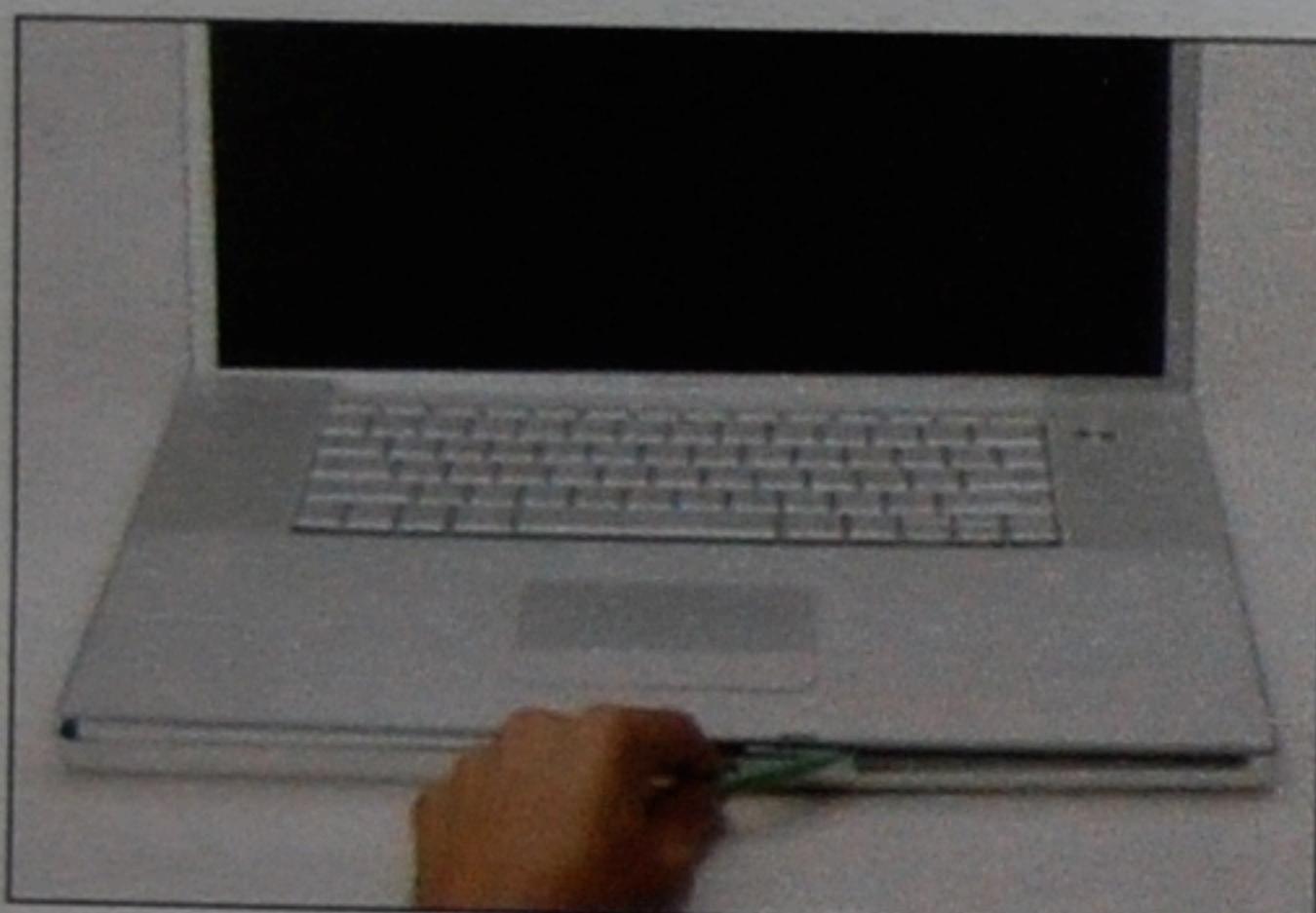


- ✖ Turn the computer 180 degrees so that the power receptacle faces you, and remove the four Phillips screws (identical to those in the last step).

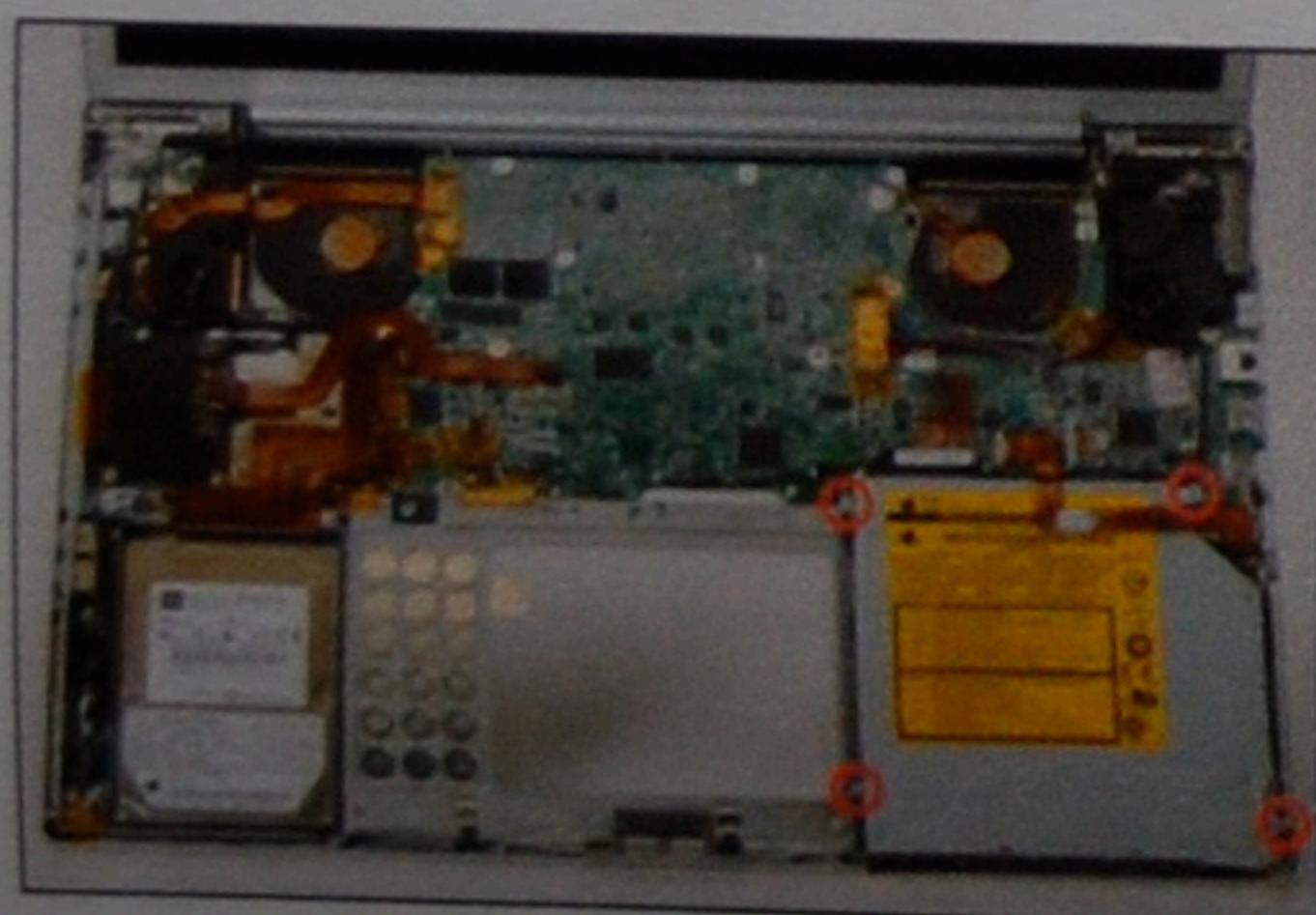


- Open the computer and turn it so that the screen faces you.
- Pull the upper case off, lifting from the back, and working around the edges.

*Lift the case slightly and check to make sure there are no cables connecting the upper case with the logic board. If so, lift the upper case up slowly and carefully and disconnect the ribbon cable(s) from the logic board prior to lifting off the upper case entirely from the computer.



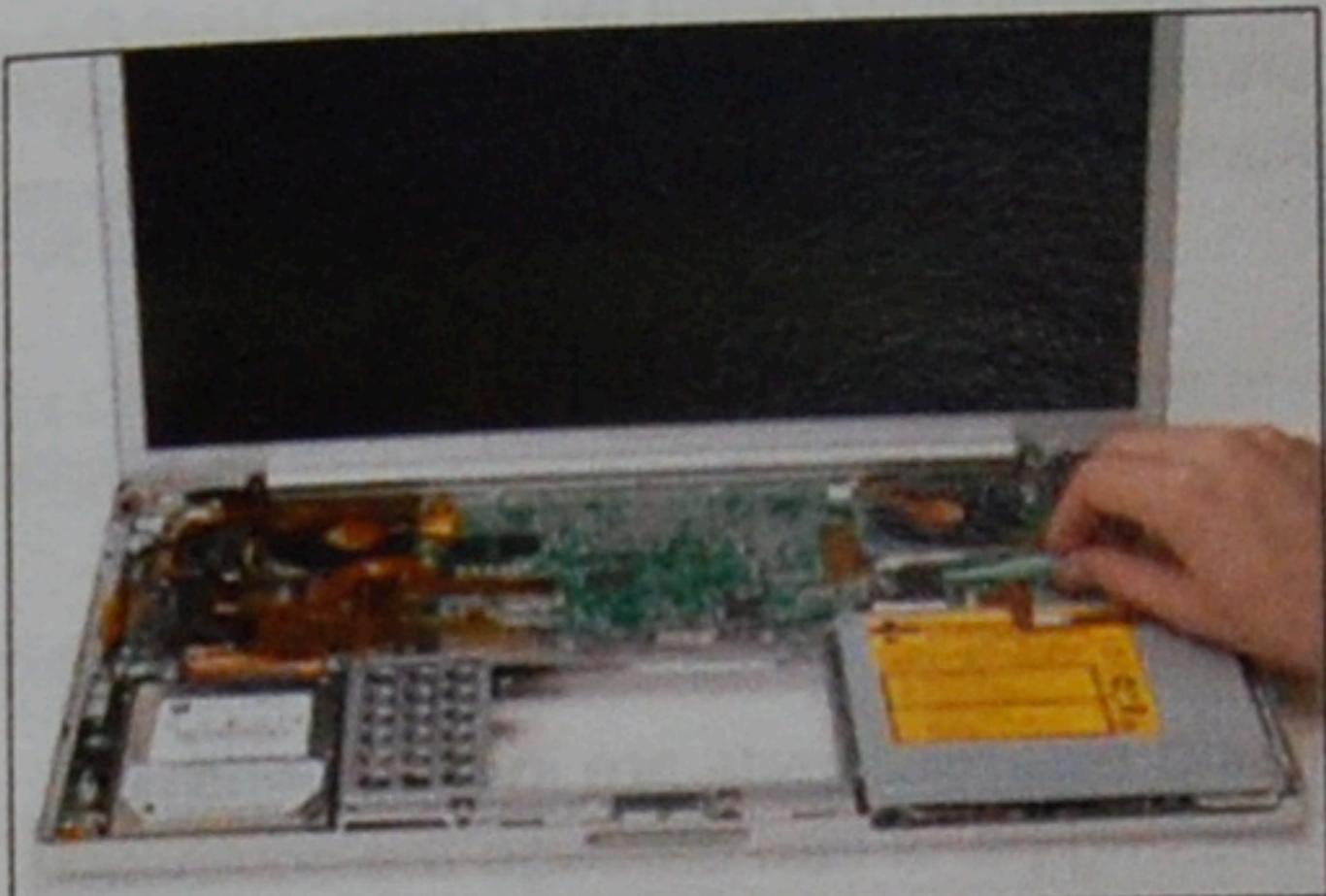
- Use a spudger to loosen the casing if it sticks.
- Once the casing is entirely free, lift it off of the computer.



SuperDrive

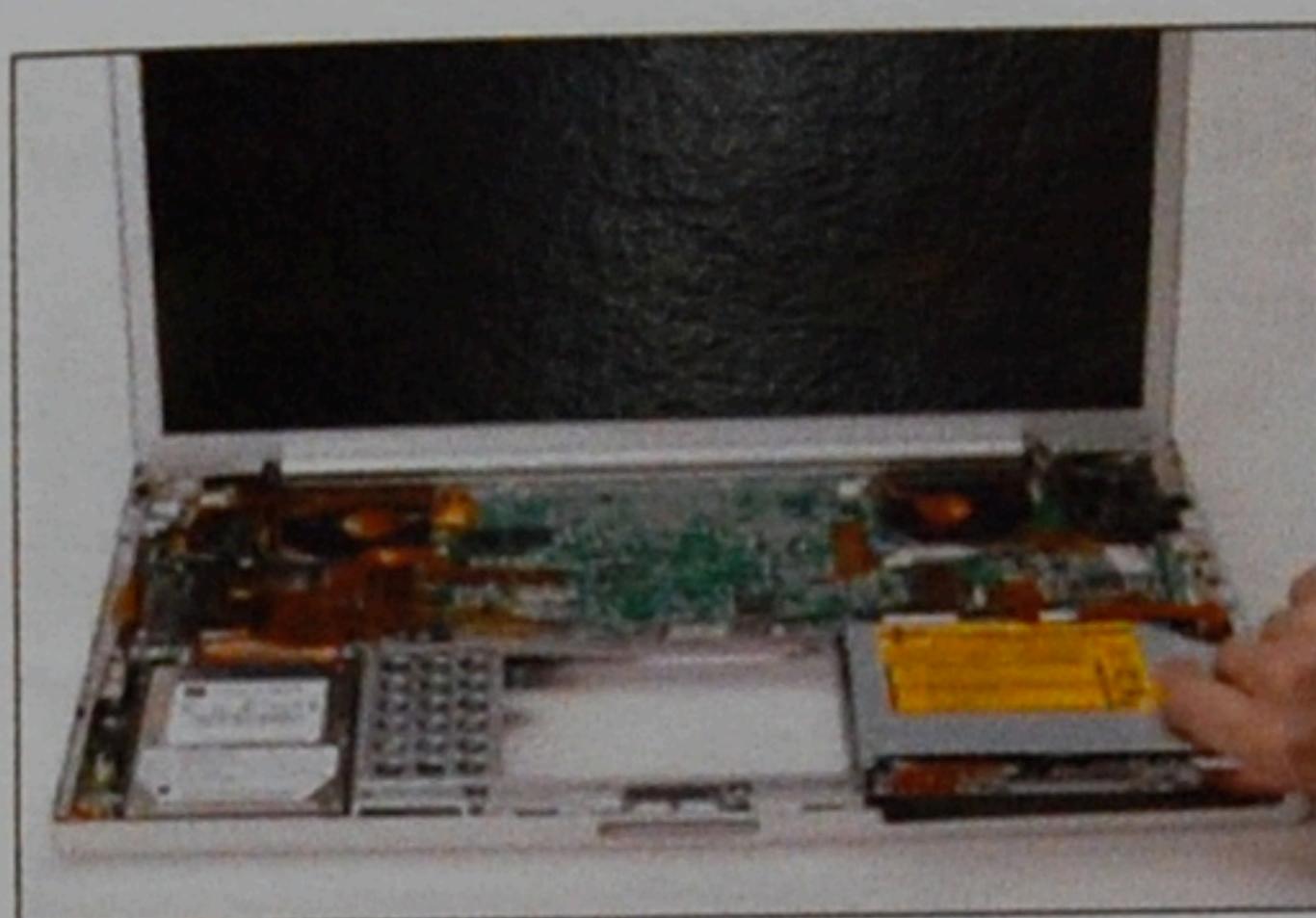
* Remove the four T8 Torx screws from the four corners of the SuperDrive.

 The shorter screw goes in the front, right corner.



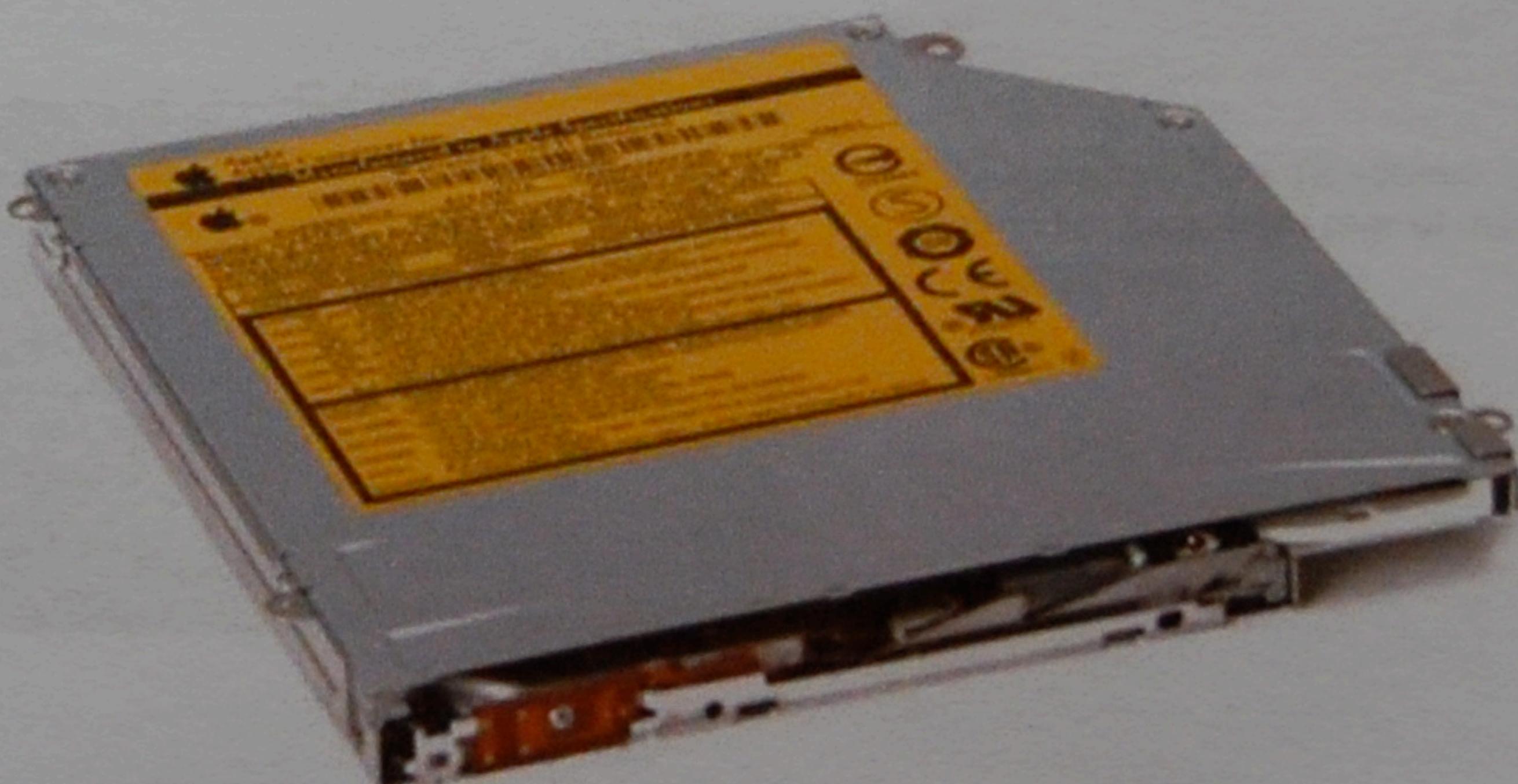
⚠ The optical drive ribbon cable is very fragile. Be sure to gently lift up the cable on the sides. Do not lift up on the cable from the end closest to the display.

- Carefully disconnect the orange optical drive ribbon from the logic board.



- Lift the optical drive at the right, front corner, and slide it out of the computer (be careful not to catch the PRAM battery cable).

Now place the SuperDrive and MCE OptiBay Hard Drive on a flat working area in front of you.



You will notice small brackets mounted on the sides of the Apple SuperDrive that hold it in place in the computer. Remove these brackets with the Phillips #0 Screwdriver. The MCE OptiBay Hard Drive is designed with screw-holes in the same locations as the original Apple SuperDrive.



OptiBay Hard Drive Installation Instructions - 8

Simply replace the brackets onto the same locations on the OptiBay Hard Drive. Also place the Optical Drive Ribbon cable onto the OptiBay Hard Drive. Now you may install the OptiBay Hard Drive into the optical drive bay of your computer. Screw the brackets down using the four T8 torx screws and connect the optical drive ribbon cable to the logic board by pressing down on the connector from above.

Now reassemble your computer following the directions in reverse order.

WARNING:

Never turn on the computer unless all of its internal and external parts are in place and it is closed. Operating the computer when it is open or missing parts can damage the computer or cause injury.

Your OptiBay Hard Drive has been tested prior to shipping. When turning on your computer for the first time it may appear on your desktop as a mounted hard drive or your computer may ask if you want to initialize the drive. At this point you may ask it to "Initialize..." or simply run Apple's Disk Utility program located in your "Utilities" folder within your "Applications" folder to initialize, partition, or setup your MCE OptiBay Hard Drive to your desired configuration.

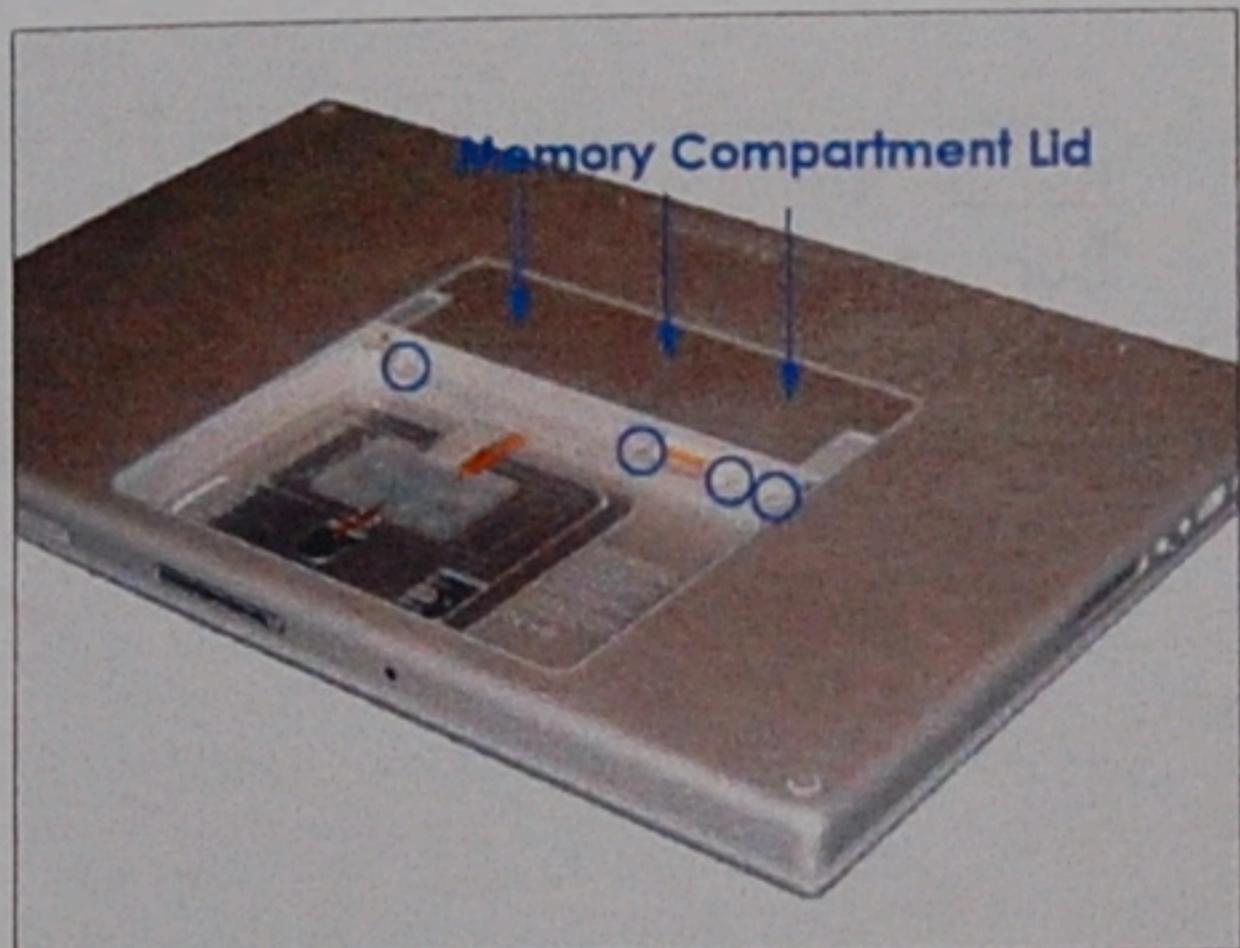
Installation Instructions for MacBook Pro 17"

Tools you will need:

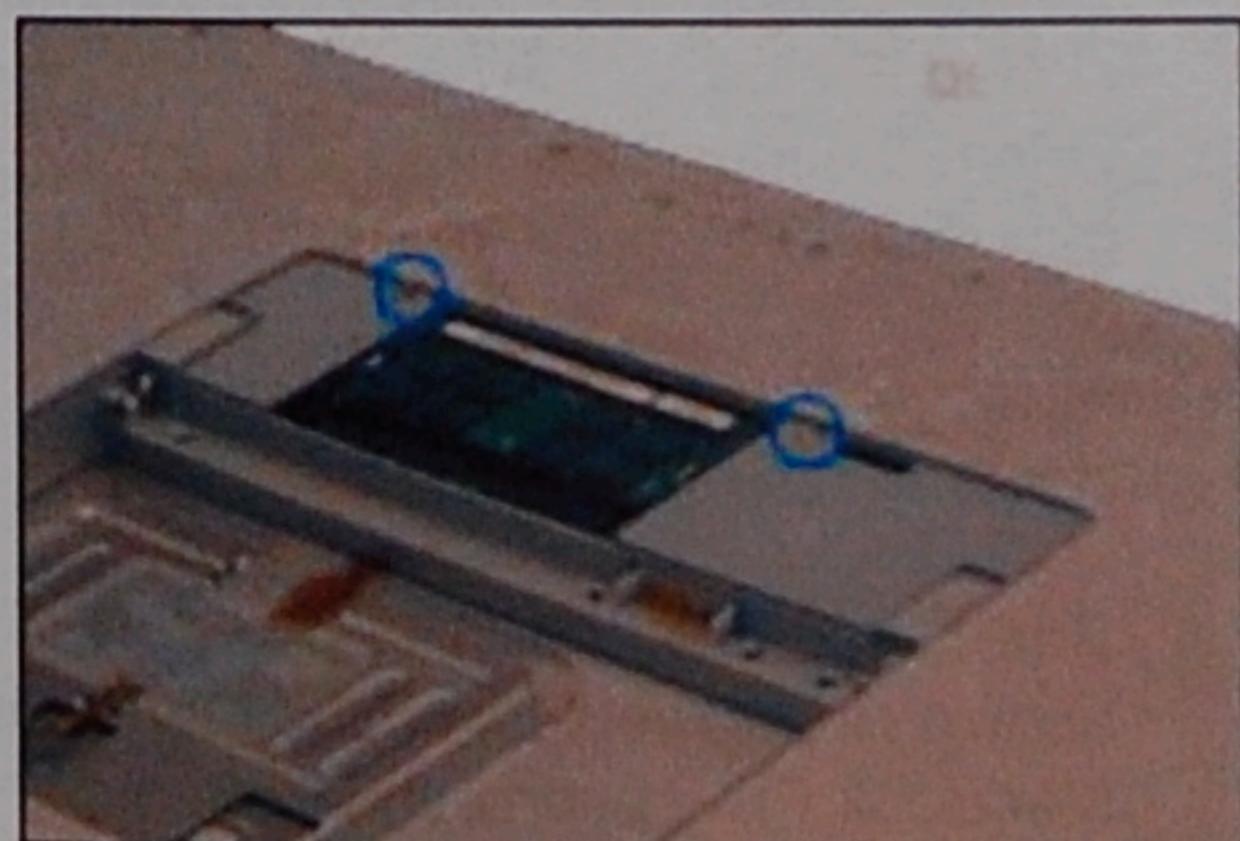
Torx T6 Screwdriver (Included)
Phillips #0 Screwdriver (Included)

Instructions

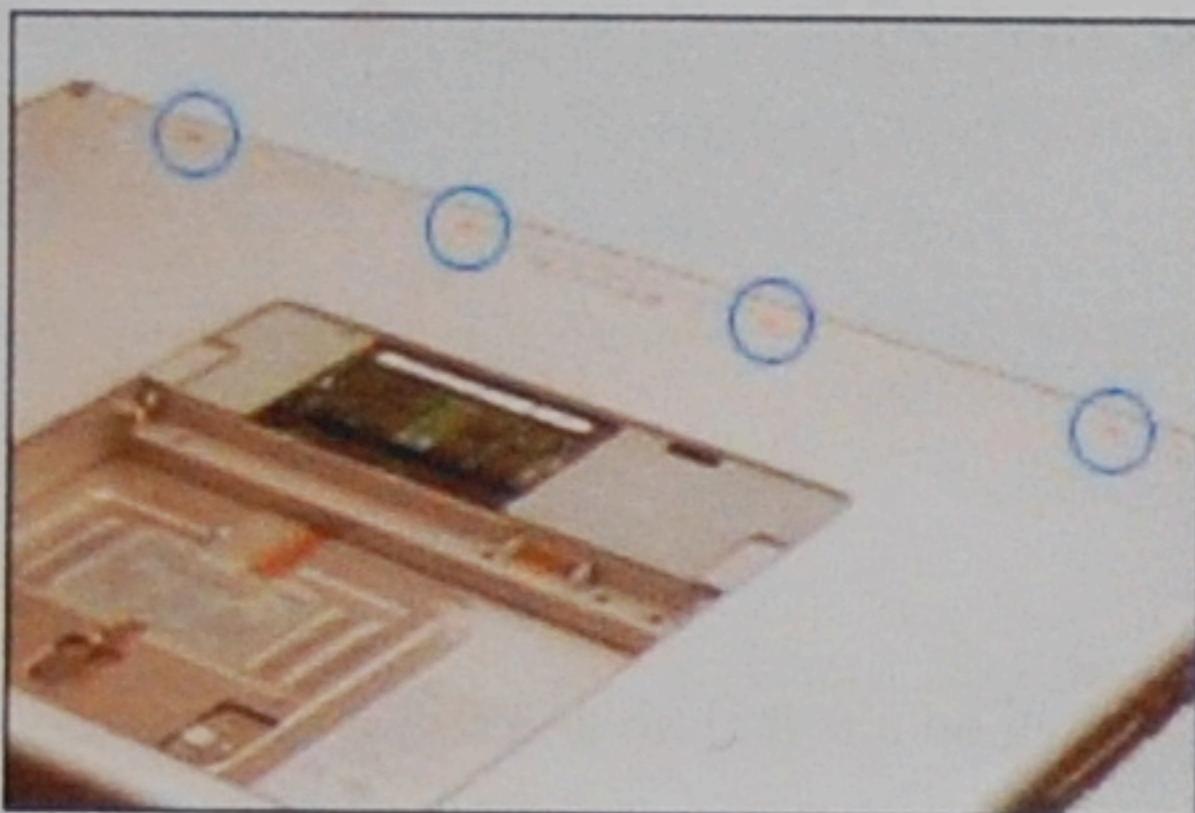
Before you begin, place your MacBook Pro 17" upside down on a soft cloth and remove the battery.



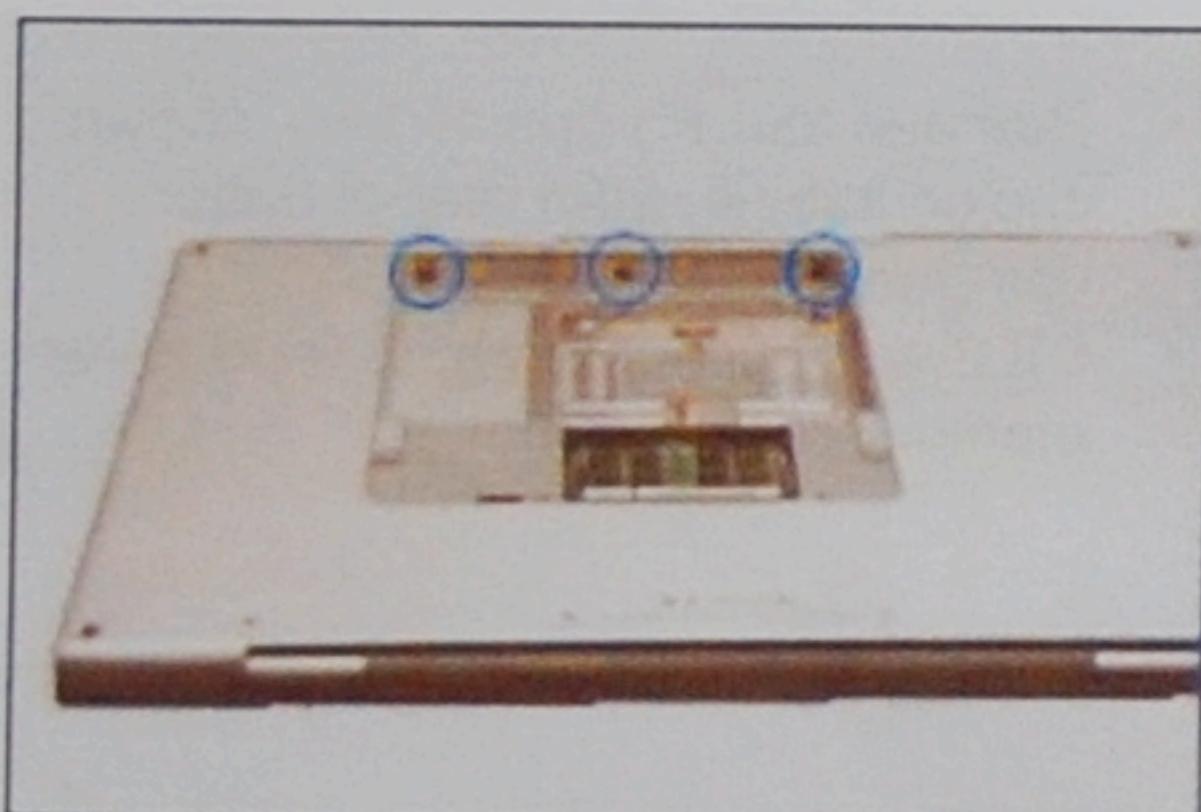
- Remove four Phillips screws, shown circled in blue, from rear of battery compartment.
- Lift memory compartment lid to reveal memory compartment.



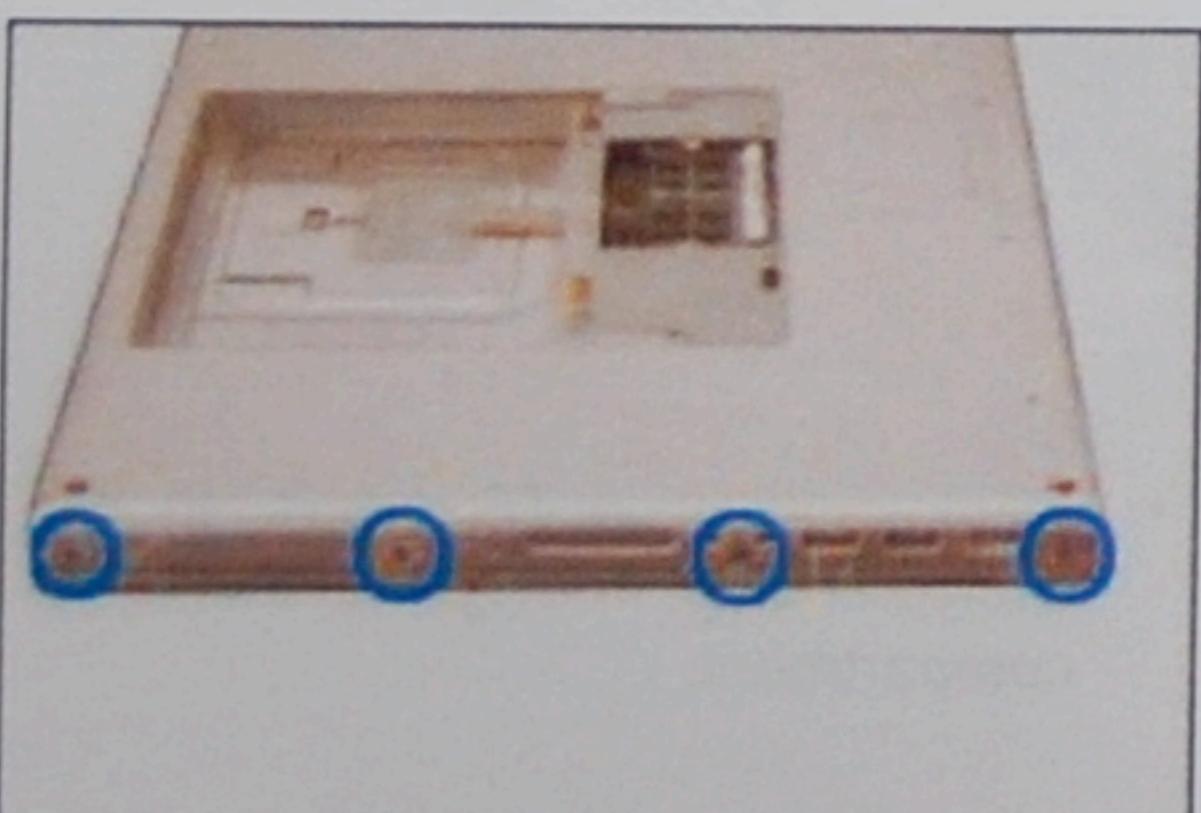
- Remove two Torx T6 screws, shown circled in blue, from rear of memory compartment.



- Remove four Phillips screws, shown circled in blue, from bottom rear of MacBook Pro.



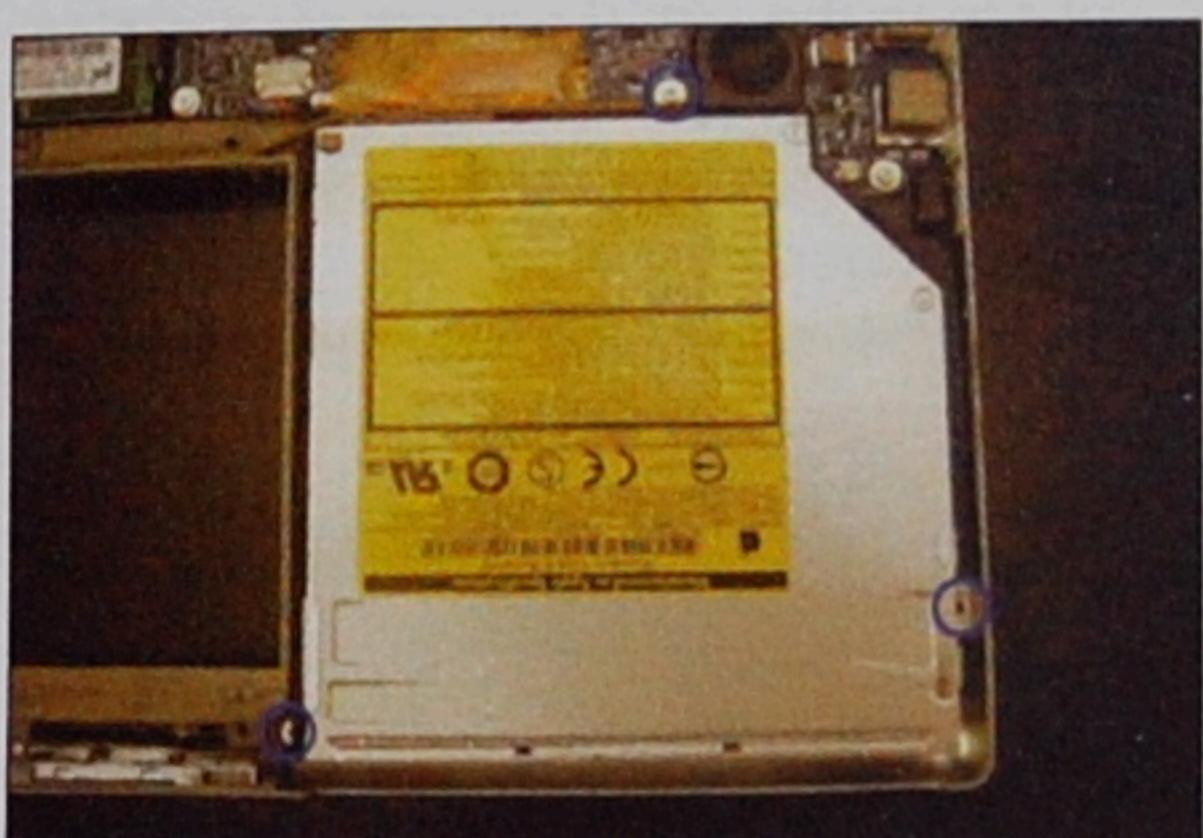
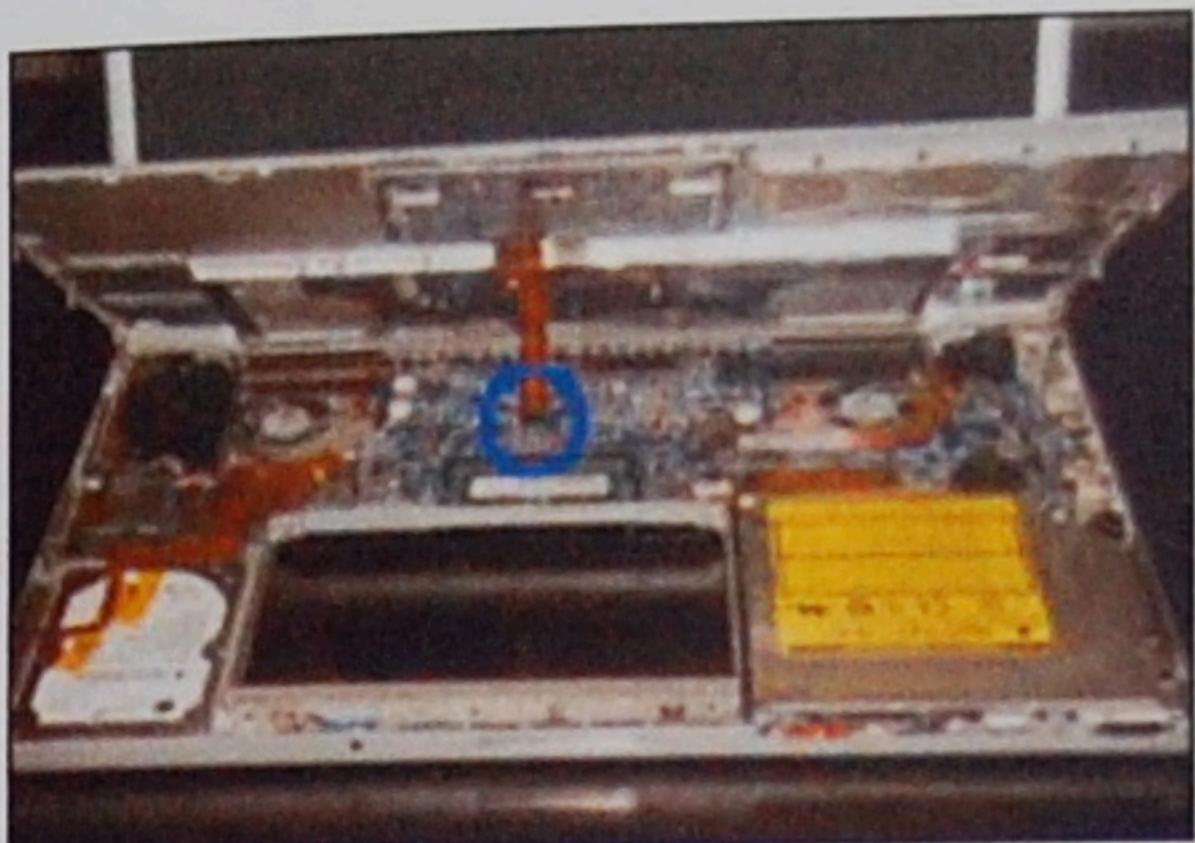
- Orient MacBook Pro 17" so that the battery bay is now positioned away from you.
- Remove three Phillips screws, shown circled in blue, from front of battery bay.



- Orient the MacBook Pro 17" so that the MagSafe Power Adapter plug is facing you.
- Remove the four Phillips screws shown circled in blue.
- Orient the MacBook Pro 17" to the opposite side (FireWire/DVI/Ethernet port side.)
- Remove the four Phillips screws located there.



- Remove the two Phillips screws, shown circled in blue, on the rear of the MacBook Pro 17" on either side of the display hinge.



- Now slowly and gently disengage the Top Case (the part where the keyboard is) from the bottom case. Do not remove completely. Lift slowly and notice under the top case there is a ribbon cable connecting the Top Case to the logic board.
- Carefully disconnect this ribbon cable connector from the logic board and set the Top Case aside.
- Remove the three Torx T-6 screws, shown circled in blue, that hold the internal SuperDrive in place. There may be a wire or thin cable over the screws that you can nudge to remove the screw.
- Carefully lift the clear amber tape that covers the SuperDrive's data cable connector so that you can gently disconnect it from the logic board. Lift carefully on one side then the other and it will disconnect.
- Lift the SuperDrive out of the MacBook Pro.
- Carefully disconnect the logic board connector cable from the SuperDrive.
- Remove all three metal brackets from the SuperDrive, one is at the rear and two are at the front on each side.
- Now fasten only the two front-most brackets from the SuperDrive to the OptiBay Hard Drive.
- When finished the OptiBay Hard Drive should appear as pictured.
- Now connect the logic board connector to the connector at the rear of the OptiBay Hard Drive.



- Place the OptiBay Hard Drive in your MacBook Pro's optical drive bay and replace the three Torx T-6 screws, shown circled in red. The screw at top near the data connector will not be securing a bracket.
- Carefully press the data connector cable onto its receptacle on the logic board so that it is seated properly.
- When installed properly your OptiBay Hard Drive should appear as in the photo to the left. (Minus the red circles!)

- Now Position the Top Tray above the logic board and carefully press the keyboard ribbon cable onto its receptacle so that it is seated properly.
- Lower the Top Tray down carefully and completely and, beginning with the refastening of the two screws on either side of the display hinge (page 9), refasten all screws in your MacBook Pro 17" by following these instructions in reverse order.

▲WARNING:

Never turn on the computer unless all of its internal and external parts are in place and it is closed. Operating the computer when it is open or missing parts can damage the computer or cause injury.

Your OptiBay Hard Drive has been tested prior to shipping. When turning on your computer for the first time it may appear on your desktop as a mounted hard drive or your computer may ask if you want to initialize the drive. At this point you may ask it to "Initialize..." or simply run Apple's Disk Utility program located in your "Utilities" folder within your "Applications" folder to initialize, partition, or setup your MCE OptiBay Hard Drive to your desired configuration.

Setting up your OptiBay Hard Drive to be a Bootable Volume on your MacBook Pro:
In order for any hard drive to start up (boot) an Intel-based Macintosh computer, such as the MacBook Pro, it must first be initialized using the GUID Partition Table as its partition scheme. This is accomplished easily using Apple's "Disk Utility" program. To initialize your OptiBay Hard Drive using the GUID Partition Table please follow these instructions:

1. Run Apple's "Disk Utility" program found in the "Utilities" folder within your "Applications" folder.
2. Select the OptiBay Hard Drive from the list of drives on the left.
3. Select the "Partition" button in the window on the right.
4. Here you may select to have more than one partition for your OptiBay Hard Drive at this window or you may just leave it at the default which is one partition.
5. Click the "Options..." button at the bottom center of the "Partition" window.
6. Select "GUID Partition Table" in the window that pops up and click "OK".
7. You may name the volume you are creating by typing its name in the "Name:" field.

8. Now click the "Partition" button at the lower right of the "Partition" window.
9. Your OptiBay Hard Drive will now be setup using the GUID Partition Scheme and the volume(s) you created will mount on the desktop and will be ready for installation of system software if you desire.

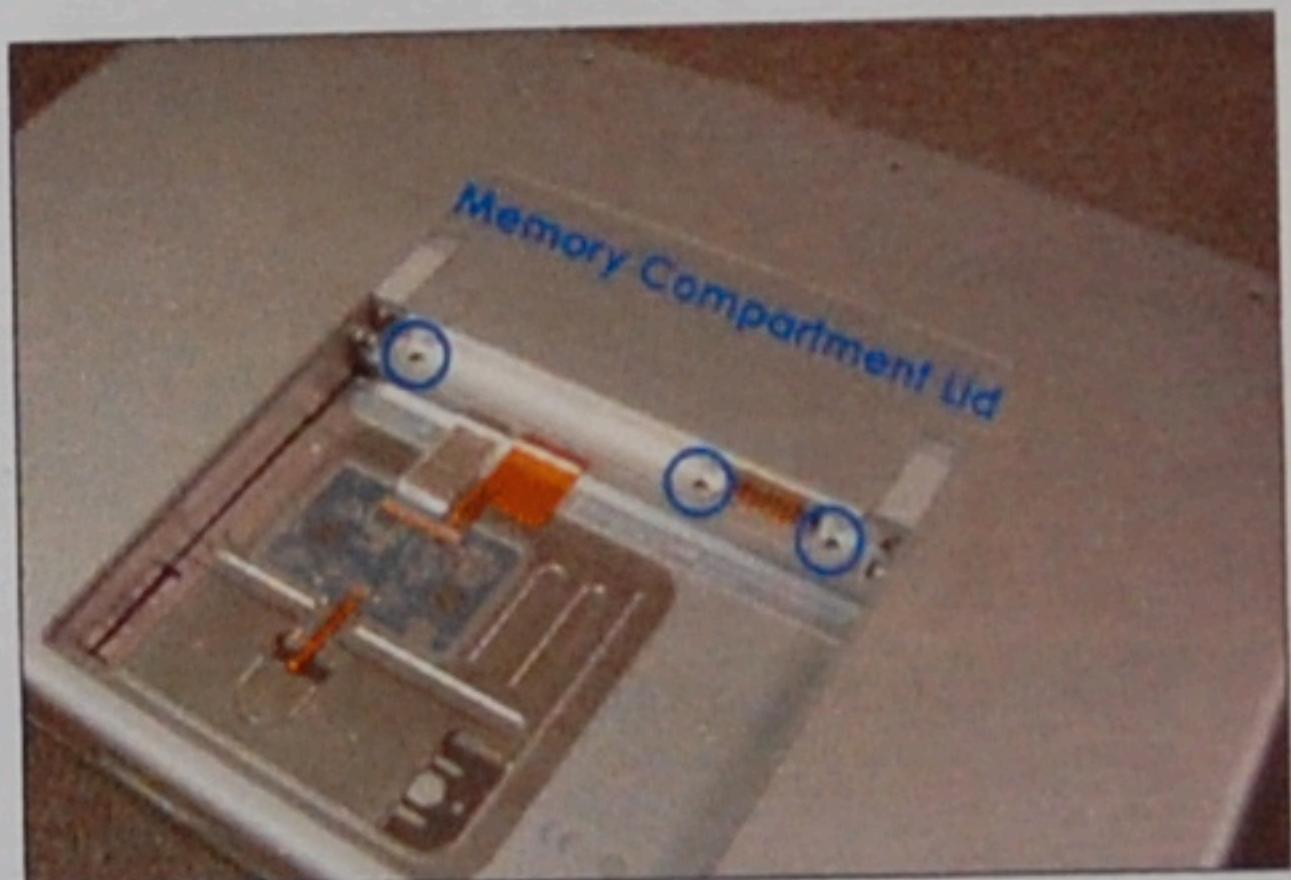
Installation Instructions for MacBook Pro 15"

Tools you will need:

Torx T6 Screwdriver (Included)
Phillips #0 Screwdriver (Included)

Instructions

Before you begin, place your MacBook Pro 15" upside down on a soft cloth and remove the battery.



- Remove three Phillips screws, shown circled in blue, from rear of battery compartment.
- Lift memory compartment lid to reveal memory compartment.



- Remove two Torx T6 screws, shown circled in blue, from rear of memory compartment.



- Remove four Phillips screws, shown circled in blue, from bottom rear of MacBook Pro.



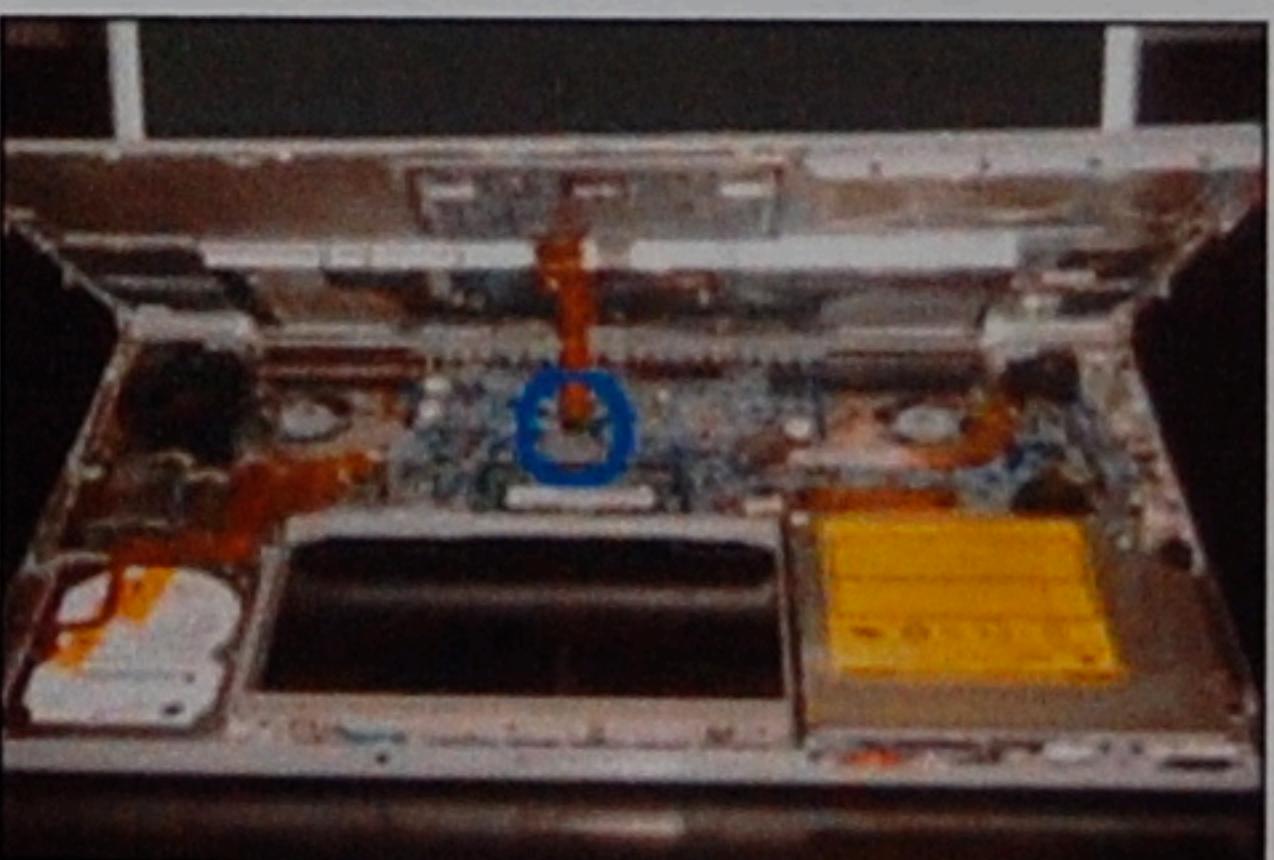
- Orient MacBook Pro 15" so that the battery bay is now positioned away from you.
- Remove the two Phillips screws, shown circled in blue, from front of battery bay located under two silver nubs which hold the battery in place.



- Orient the MacBook Pro 15" so that the MagSafe Power Adapter plug is facing you.
- Remove the four Phillips screws shown circled in blue.
- Orient the MacBook Pro 15" to the opposite side (FireWire/DVI/Ethernet port side.)
- Remove the four Phillips screws located there.

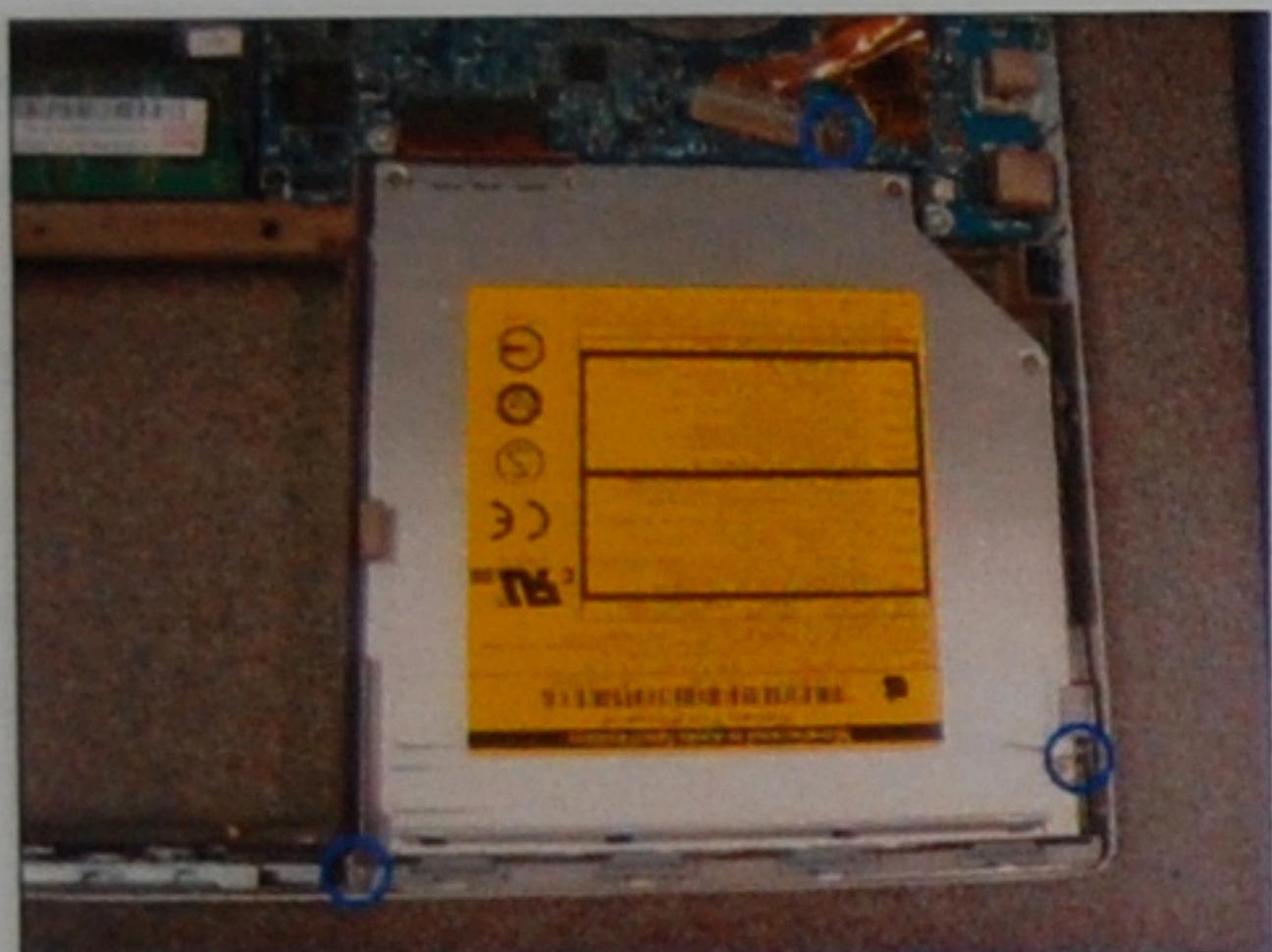


- Remove the two Phillips screws, shown circled in blue, on the rear of the MacBook Pro 15" on either side of the display hinge.



- Now slowly and gently disengage the Top Case (the part where the keyboard is) from the bottom case. Do not remove completely. Lift slowly. There are a series of clips in front of the optical drive holding the top case in place. Some firm yet careful lifting in this area will cause them to disengage. Notice under the top case there is a ribbon cable connecting the Top Case to the logic board.

- Carefully disconnect this ribbon cable connector from the logic board and set the Top Case aside.

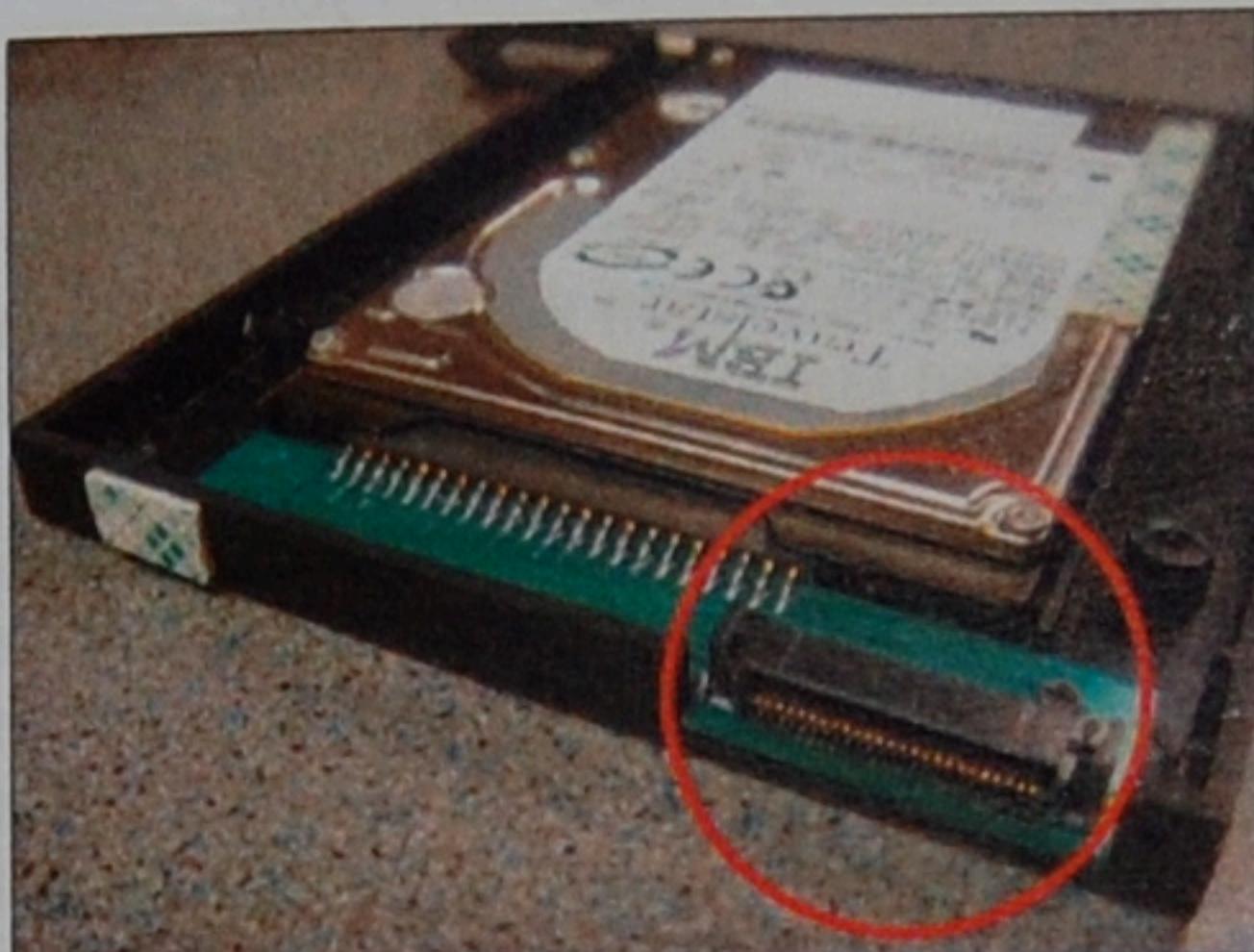


- Remove the three screws, shown circled in blue, that hold the internal SuperDrive in place. The top screw is a Torx T6 and the screws near the front are Phillips. *Tight-magnet FB*
- Carefully lift the clear amber tape that covers the SuperDrive's data cable connector so that you can gently disconnect it from the logic board. Lift carefully on one side then the other and it will disconnect.
- Lift the SuperDrive out of the MacBook Pro.
- The OptiBay Hard Drive for the MacBook Pro 15" does not use the brackets from the original SuperDrive. As you notice, there are foam tapes on various locations of the OptiBay Hard Drive. These tapes hold the OptiBay Hard Drive in place in the optical drive bay as well as afford it shock protection.

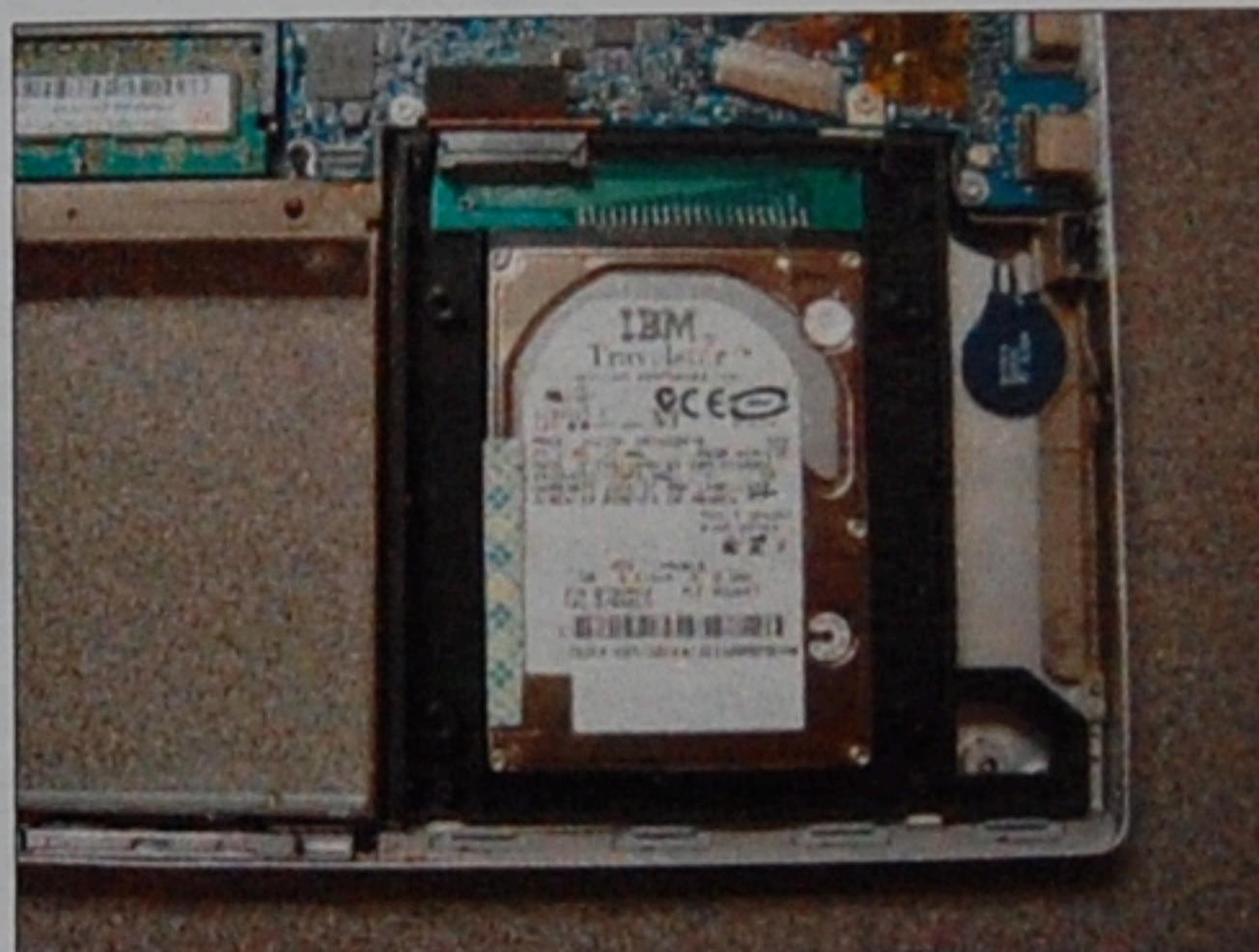


- Another angle of the OptiBay Hard Drive for the MacBook Pro 15".
- **Do not** remove the lining of the foam tapes which will expose the adhesive.





- Remove the data connector cable from the original SuperDrive and place it on the OptiBay data connector shown here circled in red.



- To install the OptiBay Hard Drive, lower the near edge of the OptiBay Hard Drive first into the optical drive bay and then lower the rest.
- Connect the data connector cable to the connector on the logic board. There is very small amount of left to right movement of the OptiBay Hard Drive which will enable you to position the data connector cable properly over the connector. Make sure it is connected firmly.

- Now Position the Top Tray above the logic board and carefully press the keyboard ribbon cable onto its receptacle so that it is seated properly.
- Lower the Top Tray down carefully and completely. Making sure it snaps in place into the series of clips in front of the OptiBay Hard Drive. Once it is down completely, beginning with the refastening of the two screws on either side of the display hinge (page 9), refasten all screws in your MacBook Pro 15" by following these instructions in reverse order.
- Congratulations! You've just installed your new MCE OptiBay Hard Drive!

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Your OptiBay Hard Drive has been tested prior to shipping. When turning on your computer for the first time it may appear on your desktop as a mounted hard drive or your computer may ask if you want to initialize the drive. At this point you may ask it to "Initialize..." or



OptiBay Hard Drive Installation Instructions - 18

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11. Select the OptiBay Hard Drive from the list of drives on the left.
12. Select the "Partition" button in the window on the right.
13. Here you may select to have more than one partition for your OptiBay Hard Drive at this window or you may just leave it at the default which is one partition.
14. Click the "Options..." button at the bottom center of the "Partition" window.
15. Select "GUID Partition Table" in the window that pops up and click "OK".
16. You may name the volume you are creating by typing its name in the "Name:" field.

17. Now click the "Partition" button at the lower right of the "Partition" window.
18. Your OptiBay Hard Drive will now be setup using the GUID Partition Scheme and the volume(s) you created will mount on the desktop and will be ready for installation of system software if you desire.



Warranty

MCE warrants your drive against any defect in material and workmanship, under normal use, for the period designated on your warranty certificate. In the event this product is found to be defective within the warranty period, MCE will, at its option, repair or replace the defective hard drive.

This warranty is void if:

- The drive was operated/stored in abnormal use or maintenance conditions;
- The drive is repaired, modified or altered, unless such repair, modification or alteration is expressly authorized in writing by MCE;
- The drive was subjected to abuse, neglect, lightning strike, electrical fault, improper packaging or accident;
- The drive was installed improperly;
- The serial number of the drive is defaced or missing;
- The broken part is a replacement part such as a pickup tray, etc.
- The tamper seal on the drive casing is broken.

MCE will not, under any circumstances, be liable for direct, special or consequential damages such as, but not limited to, damage or loss of property or equipment, loss of profits or revenues, cost of replacement goods, or expense or inconvenience caused by service interruptions.

Under no circumstances will any person be entitled to any sum greater than the purchase price paid for the drive.

To obtain warranty service, call MCE Technical Support. You may be asked to furnish proof of purchase to confirm that the drive is still under warranty.

All drives returned to MCE must be securely packaged in their original box and shipped with postage prepaid.

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