

## Removing and replacing a FRU

This section presents directions and drawings for use in removing and replacing a FRU. Be sure to observe the following general rules:

1. Do not try to service any computer unless you have been trained and certified. An untrained person runs the risk of damaging parts.
2. Before replacing any FRU, review “FRU replacement notices” on page 51.
3. Begin by removing any FRUs that have to be removed before the failing FRU. Any such FRUs are listed at the top of the page. Remove them in the order in which they are listed.
4. Follow the correct sequence in the steps for removing the FRU, as given in the drawings by the numbers in square callouts.
5. When turning a screw to replace a FRU, turn it in the direction as given by the arrow in the drawing.
6. When removing the FRU, move it in the direction as given by the arrow in the drawing.
7. To put the new FRU in place, reverse the removal procedure and follow any notes that pertain to replacement. For information about connecting and arranging internal cables, see “Locations” on page 103.
8. When replacing a FRU, use the correct screw as shown in the procedures.

### DANGER

Before removing any FRU, turn off the computer, unplug all power cords from electrical outlets, remove the battery pack, and then disconnect any interconnecting cables.

**Attention:** After replacing a FRU, do not turn on the computer until you have made sure that all screws, springs, and other small parts are in place and none are loose inside the computer. Verify this by shaking the computer gently and listening for rattling sounds. Metallic parts or metal flakes can cause electrical short circuits.

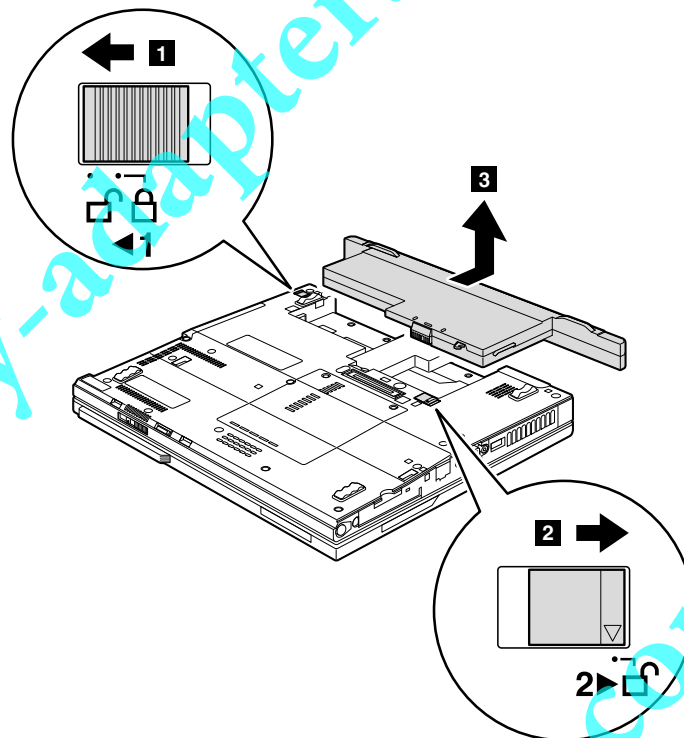
**Attention:** The system board is sensitive to, and can be damaged by, electrostatic discharge. Before touching it, establish personal grounding by touching a ground point with one hand or by using an electrostatic discharge (ESD) strap (P/N 6405959).

## 1010 Battery pack

**⚠ DANGER**

Use only the battery specified in the parts list for your computer. Any other battery could ignite or explode.

Unlock the battery release lever **1**. Holding the battery release lever in the unlocked position **2**, remove the battery pack in the direction shown by arrow **3**.



**When installing:** Install the battery pack along the slide rails of the slot. Then make sure that the battery release lever is in the locked position.

### Removing and replacing a FRU

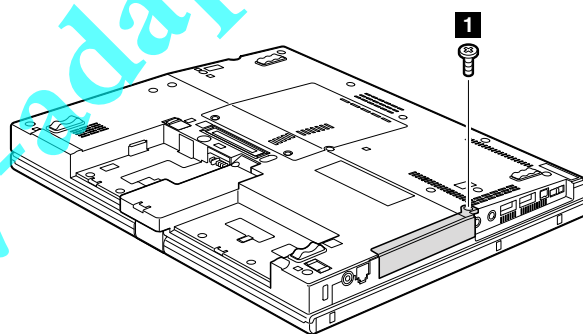
## 1020 Hard disk drive slot cover, hard disk drive rubber rails, and hard disk drive

For access, remove this FRU:

- “1010 Battery pack” on page 55

#### Attention

- **Do not drop the hard disk drive or apply any physical shock to it.** The hard disk drive is sensitive to physical shock. Improper handling can cause damage and permanent loss of data.
- Before removing the drive, have the user make a backup copy of all the information on it if possible.
- Never remove the drive while the system is operating or is in suspend mode.

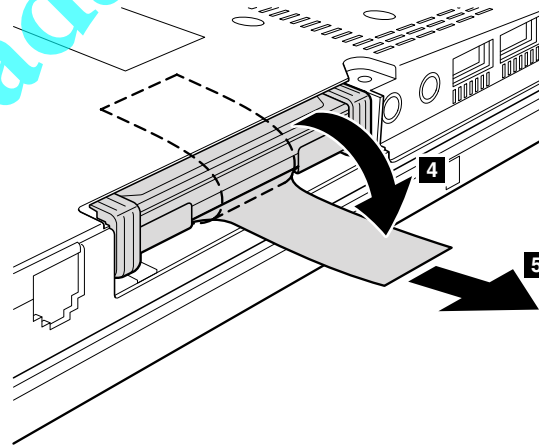
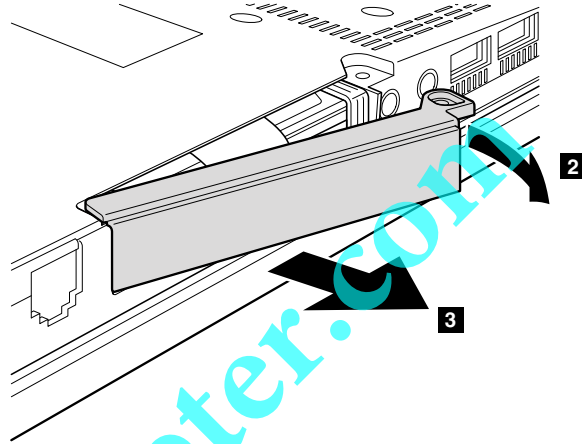


Step	Screw (quantity)	Color	Torque
<b>1</b>	Hard disk drive screw, nylon-coated (1)	Black	0.167 Nm (1.7 kgfcm)

(continued)

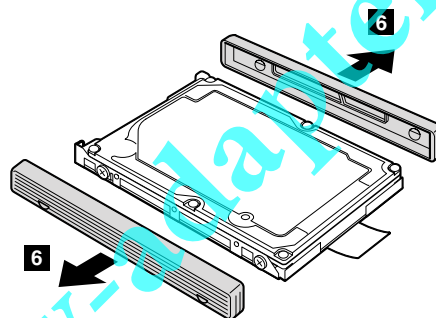
Removing and replacing a FRU

Remove the hard disk drive slot cover in step **2** and **3**.



**When installing:** Make sure that the hard disk drive connector is attached firmly.

Remove the hard disk drive rubber rails in step **6**.



**When installing:** The rubber rails on the hard disk drive must be attached to the replacement drive. Otherwise the drive cannot be installed properly.

Removing and replacing a FRU

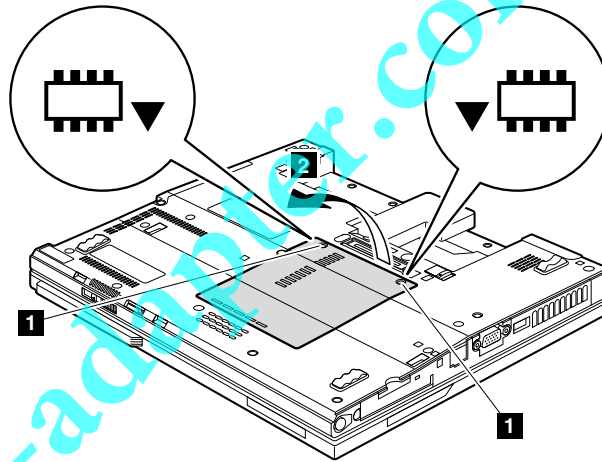
### 1030 DIMM slot cover and DIMM

For access, remove this FRU:

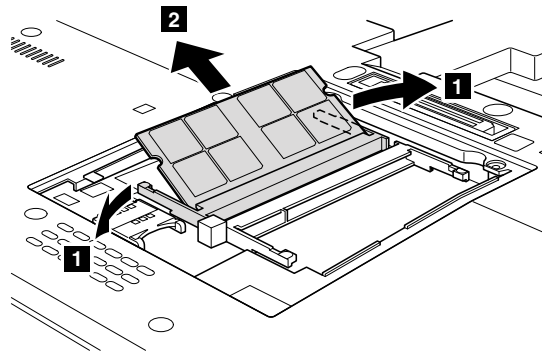
- “1010 Battery pack” on page 55

Remove the DIMM slot cover as shown in this figure.

**Note:** Loosen the screws **1**, but do not remove them.



Remove the DIMM as shown in this figure.

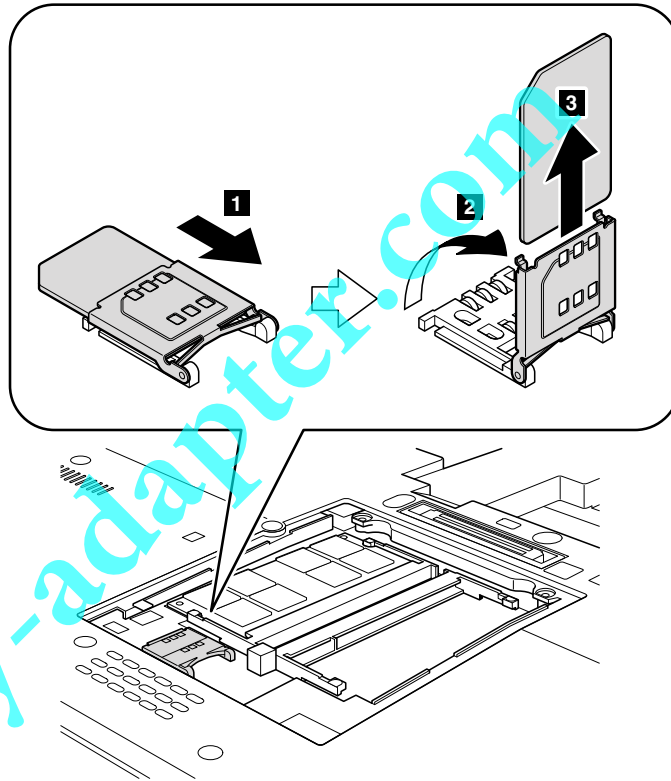


**When installing:** Insert the notched end of the DIMM into the socket. Press the DIMM firmly, and pivot it until it snaps into the place. Make sure that it is firmly fixed in the slot and does not move easily.

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If the SIM card has been inserted in its slot, remove it before you start the servicing.



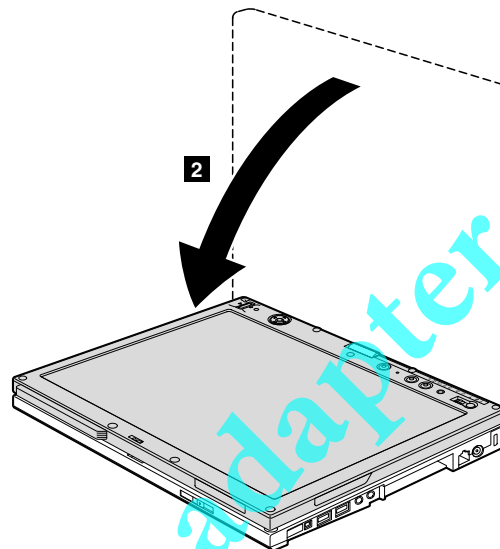
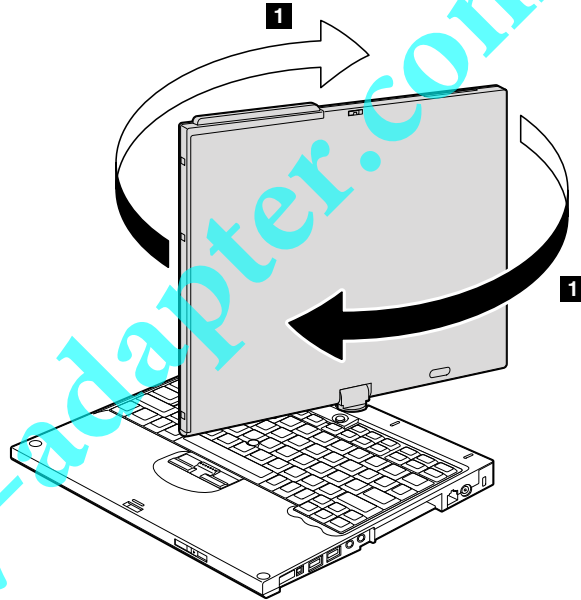
*Removing and replacing a FRU*

**1040 Hinge caps**

For access, remove this FRU:

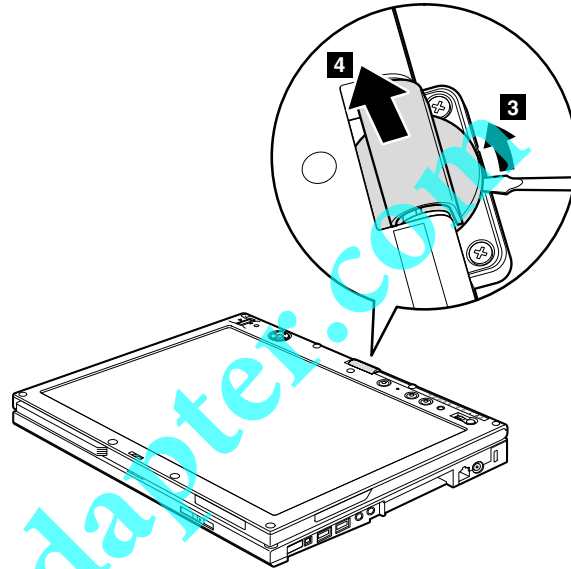
- “1010 Battery pack” on page 55

Open the LCD cover and rotate the LCD unit as shown in this figure. Then close the LCD unit so that the digitizer faces upward.

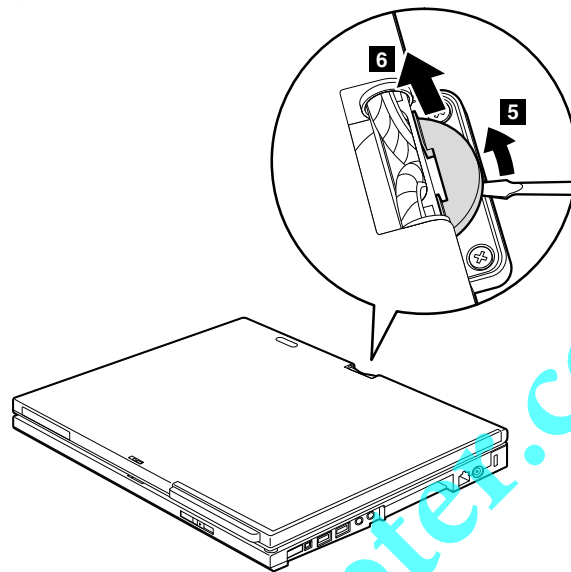


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First remove the hinge cap (large).



Before removing the hinge cap (small) in step **5**, rotate the LCD unit back to the original position, and close the LCD cover.



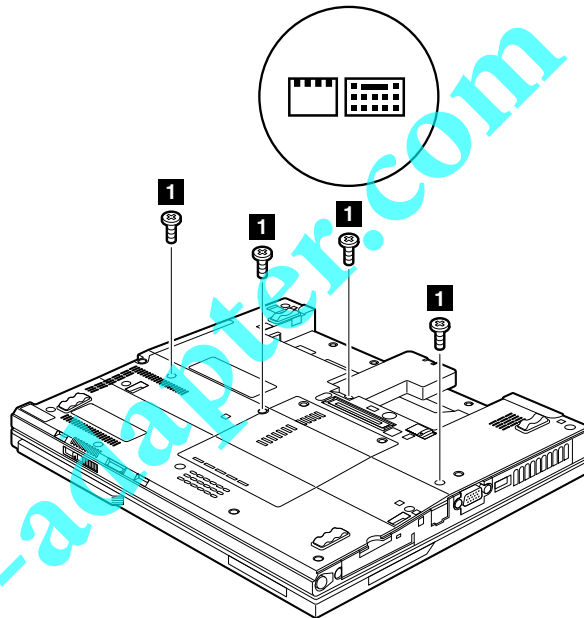


## Removing and replacing a FRU

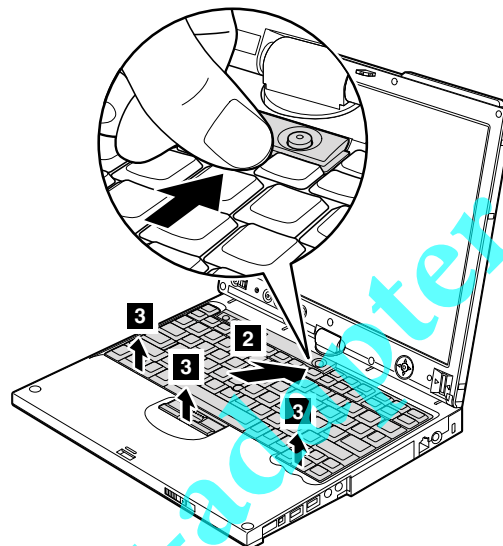
### 1050 Keyboard

For access, remove these FRUs in order:

- “1010 Battery pack” on page 55



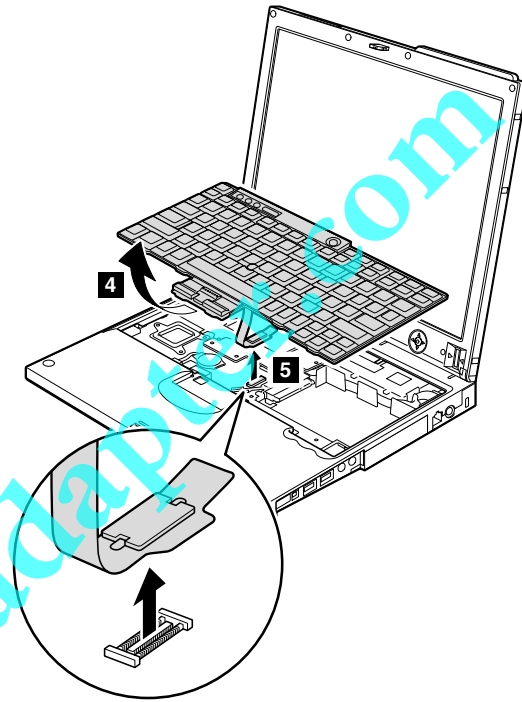
Step	Icon	Screw (quantity)	Color	Torque
1		M2 × 6 mm, wafer-head, nylon-coated (4)	Black	0.167 Nm (1.7 kgfcm)



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*Removing and replacing a FRU*

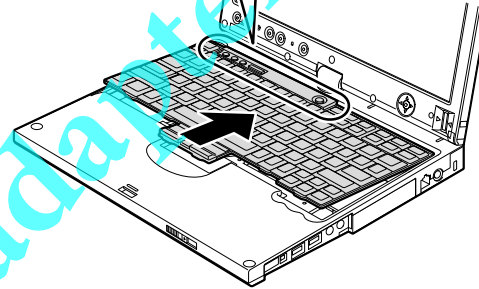
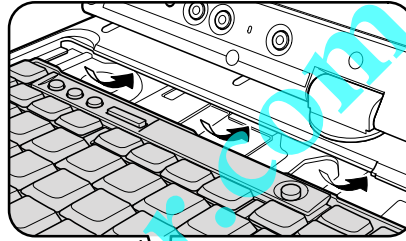
Lift the keyboard a little in the direction shown by arrow **4** , and then detach the connector **5** .



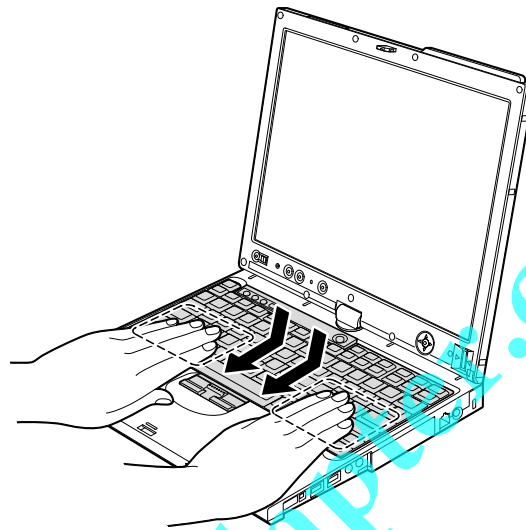
### Removing and replacing a FRU

#### When installing:

1. Attach the keyboard connector firmly.
2. Make sure that the keyboard edges are under the frame as shown in this figure. Then press the keys to latch the keyboard firmly in place.



3. To make sure that the front side of the keyboard is housed firmly, gently press the keys with your thumbs and try to slide the keyboard toward you.



4. Secure the keyboard by tightening the screws from the bottom side of the computer.

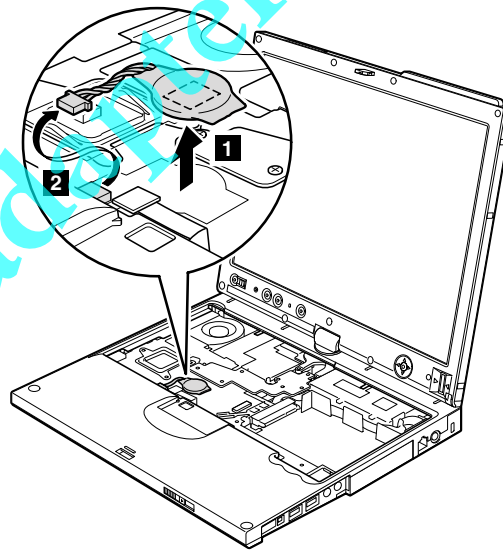
## 1060 Backup battery

**⚠ DANGER**

Use only the battery specified in the parts list for your computer. Any other battery could ignite or explode.

For access, remove these FRUs in order:

- "1010 Battery pack" on page 55
- "1050 Keyboard" on page 62



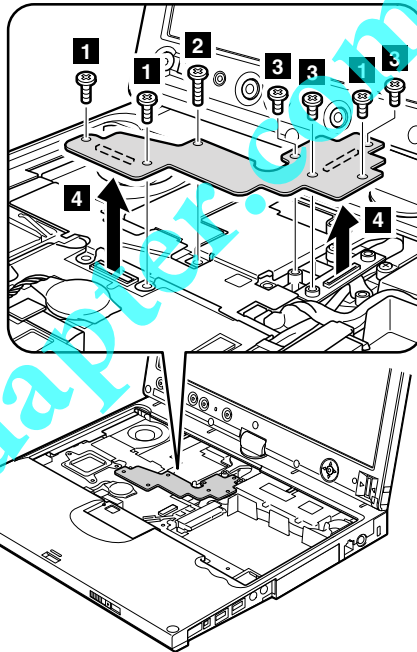
**When installing:** Make sure that the battery connector is attached firmly.

## Removing and replacing a FRU

### 1070 LCD extend board

For access, remove these FRUs in order:

- “1010 Battery pack” on page 55
- “1050 Keyboard” on page 62



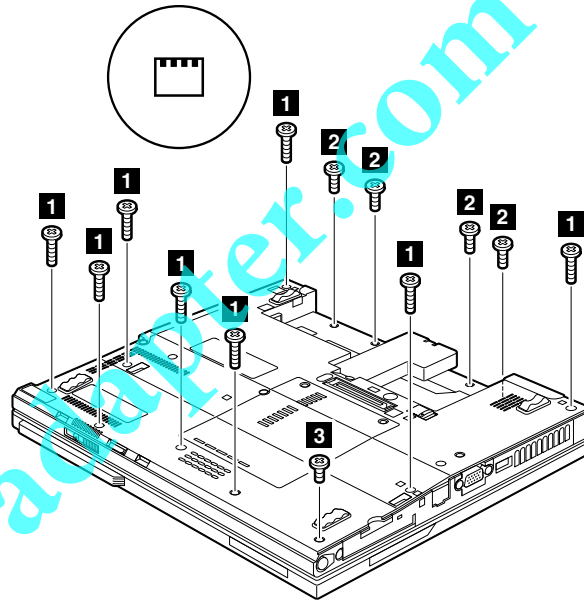
Step	Screw (quantity)	Color	Torque
<b>1</b>	M2 × 6 mm, wafer-head, nylon-coated (3)	Silver	0.167 Nm (1.7 kgfcm)
<b>2</b>	M2 × 9 mm, wafer-head, nylon-coated (1)	Silver	0.167 Nm (1.7 kgfcm)
<b>3</b>	M2 × 2.5 mm, wafer-head, nylon-coated (3)	Silver	0.167 Nm (1.7 kgfcm)

**When installing:** Make sure that the connectors are attached firmly.

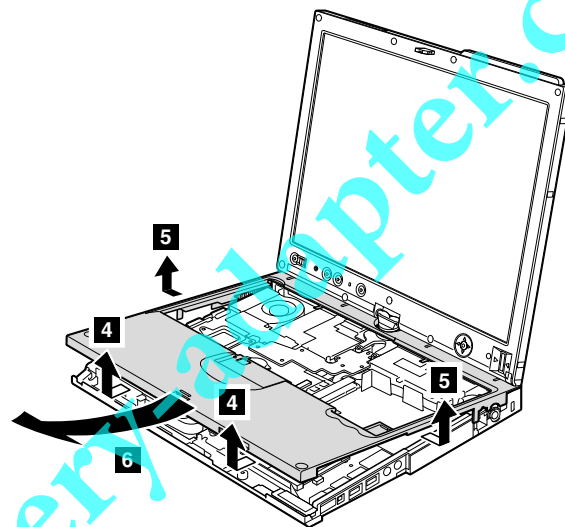
## 1080 Keyboard bezel for X60 Tablet

For access, remove these FRUs in order:

- "1010 Battery pack" on page 55
- "1050 Keyboard" on page 62



Step	Screw (quantity)	Color	Torque
<b>1</b>	M2 × 6 mm, wafer-head, nylon-coated (8)	Black	0.167 Nm (1.7 kgfcm)
<b>2</b>	M2 × 4 mm, wafer-head, nylon-coated (4)	Silver	0.167 Nm (1.7 kgfcm)
<b>3</b>	M2 × 2 mm, flat-head, nylon-coated (1)	Black	0.167 Nm (1.7 kgfcm)

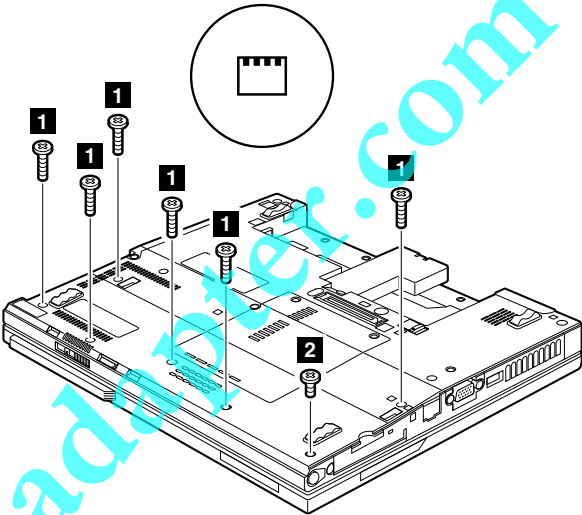


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1090 Palm rest for X61 Tablet

For access, remove these FRUs in order:

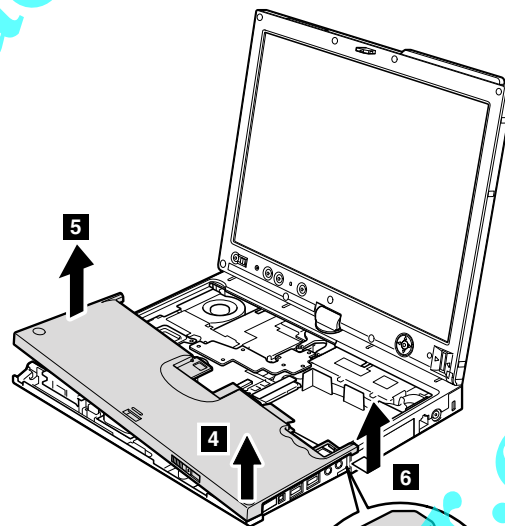
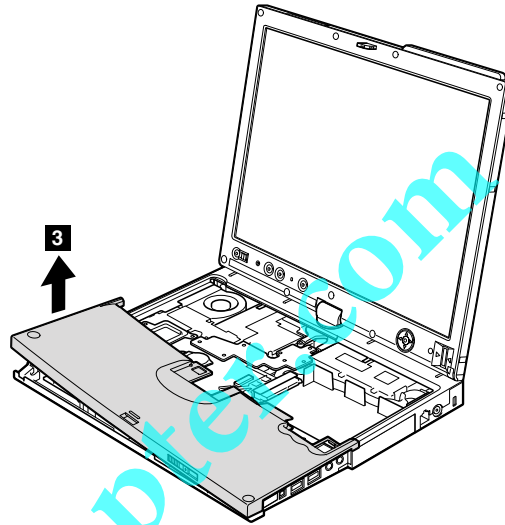
- “1010 Battery pack” on page 55
- “1050 Keyboard” on page 62



Step	Screw (quantity)	Color	Torque
1	M2 × 6 mm, wafer-head, nylon-coated (6)	Black	0.167 Nm (1.7 kgfcm)
2	M2 × 2 mm, flat-head, nylon-coated (1)	Black	0.167 Nm (1.7 kgfcm)

(continued)

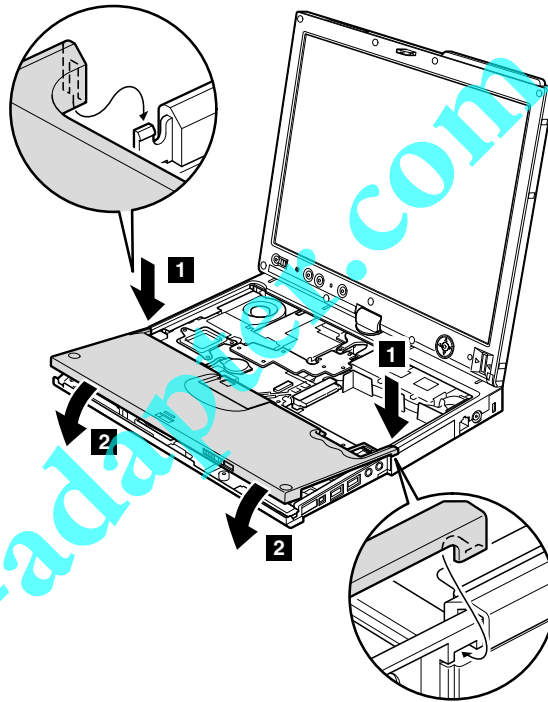
Removing and replacing a FRU





*Removing and replacing a FRU*

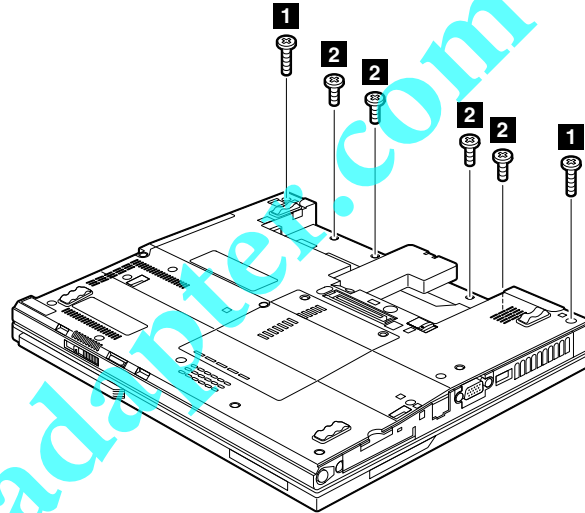
**When installing:** Attach each latch on the left top edge and on the right top edge of the palm rest at first, and attach the front edge of the palm rest to the frame.



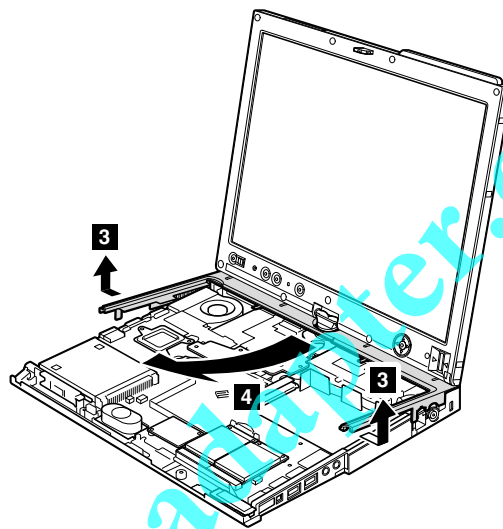
## 1100 Keyboard bezel for X61 Tablet

For access, remove these FRUs in order:

- "1010 Battery pack" on page 55
- "1050 Keyboard" on page 62



Step	Screw (quantity)	Color	Torque
<b>1</b>	M2 × 6 mm, wafer-head, nylon-coated (2)	Black	0.167 Nm (1.7 kgfcm)
<b>2</b>	M2 × 4 mm, wafer-head, nylon-coated (4)	Silver	0.167 Nm (1.7 kgfcm)

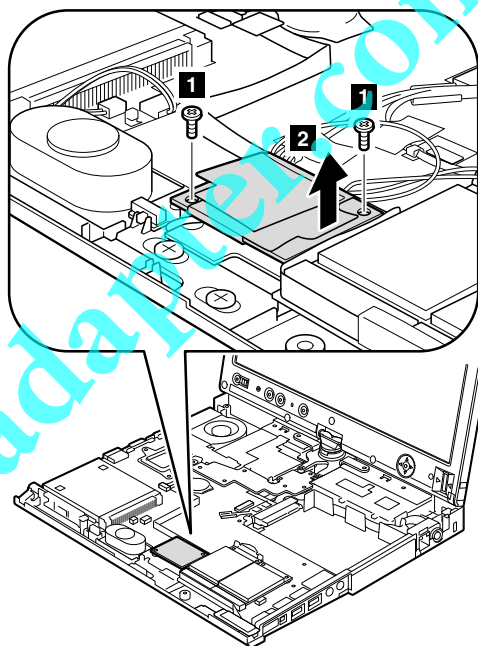


## Removing and replacing a FRU

**1110 Modem daughter card (MDC-1.5)**

For access, remove these FRUs in order:

- “1010 Battery pack” on page 55
- “1050 Keyboard” on page 62
- “1080 Keyboard bezel for X60 Tablet” on page 67
- “1090 Palm rest for X61 Tablet” on page 68



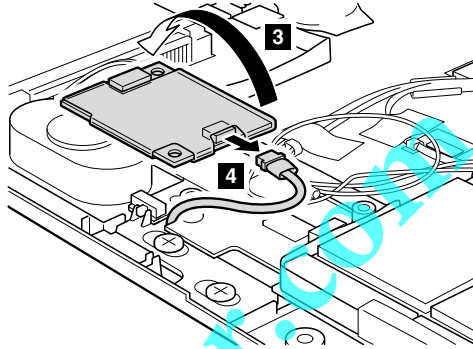
Step	Screw (quantity)	Color	Torque
<b>1</b>	M2 × 3.5 mm, wafer-head, nylon-coated (2)	Silver	0.167 Nm (1.7 kgfcm)

In step **2**, remove the card by pulling the tab with your fingers in the direction shown by the arrow.

(continued)

*Removing and replacing a FRU*

Turn the card over **3** , and detach the modem connector **4** .



**When installing:** Make sure that the modem connector and the connector on the underside of the card are attached firmly.

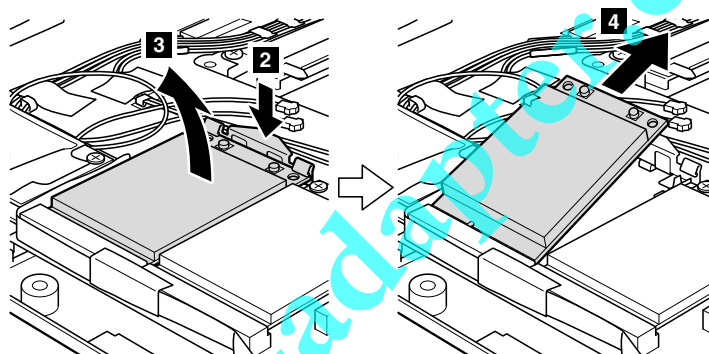
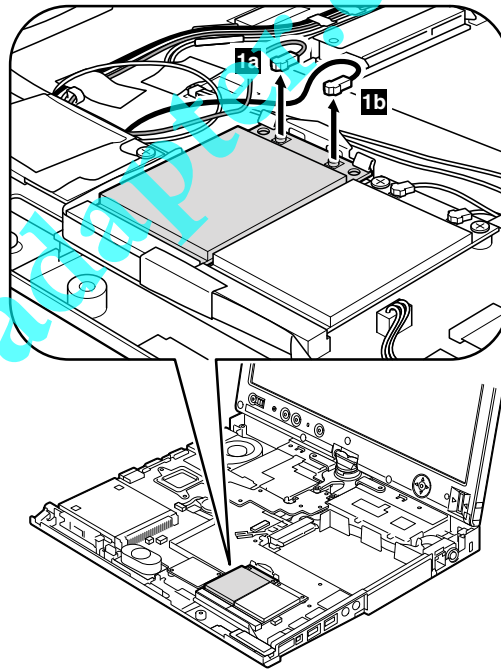
Removing and replacing a FRU

## 1120 PCI Express Mini Card for wireless LAN

For access, remove these FRUs in order:

- “1010 Battery pack” on page 55
- “1050 Keyboard” on page 62
- “1080 Keyboard bezel for X60 Tablet” on page 67
- “1090 Palm rest for X61 Tablet” on page 68

In step **1a** and **1b**, unplug the jacks by using the removal tool antenna RF connector (P/N: 08K7159) or pick the connectors with your fingers and gently unplug them in direction of the arrow.

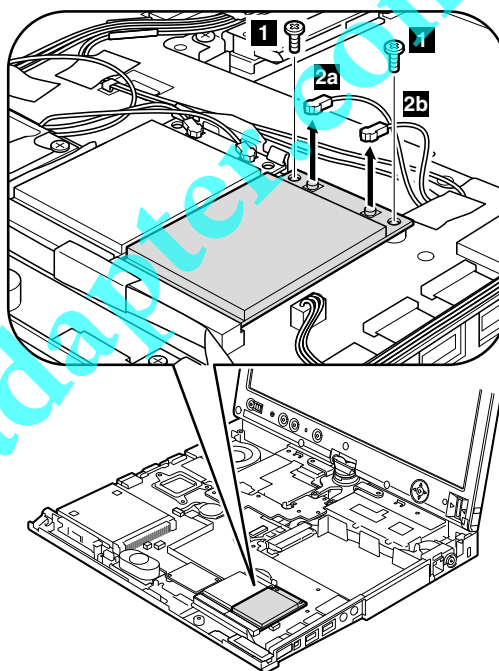


**When installing:** Plug the gray cable **1a** into the jack labeled **MAIN** on the card, and the black cable **1b** into the jack labeled **AUX**. If the computer you are servicing has three cables, put the white cable in the cable bag in the card slot.

## 1130 PCI Express Mini Card for wireless WAN

For access, remove these FRUs in order:

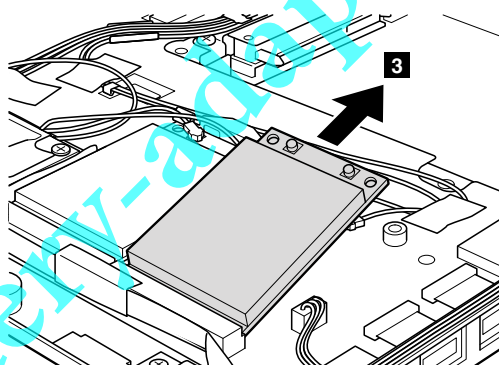
- "1010 Battery pack" on page 55
- "1050 Keyboard" on page 62
- "1080 Keyboard bezel for X60 Tablet" on page 67
- "1090 Palm rest for X61 Tablet" on page 68



Step	Screw (quantity)	Color	Torque
<b>1</b>	M2 × 3.5 mm, wafer-head, nylon-coated (2)	Silver	0.167 Nm (1.7 kgfcm)

In step **2a** and **2b**, unplug the jacks by using the removal tool antenna RF connector (P/N: 08K7159) or pick the connectors with your fingers and gently unplug them in direction of the arrow.

**When installing:** Plug the red cable **2a** into the jack labeled MAIN on the card, and the blue cable **2b** into the jack labeled AUX.

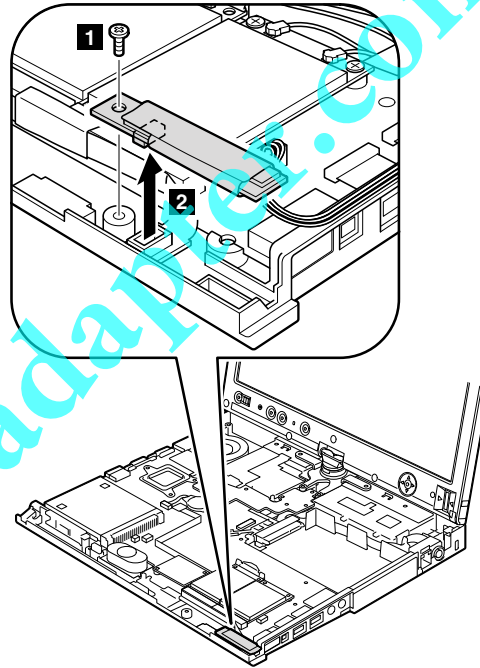


## Removing and replacing a FRU

**1140 Bluetooth daughter card (BDC-2)**

For access, remove these FRUs in order:

- “1010 Battery pack” on page 55
- “1050 Keyboard” on page 62
- “1080 Keyboard bezel for X60 Tablet” on page 67
- “1090 Palm rest for X61 Tablet” on page 68



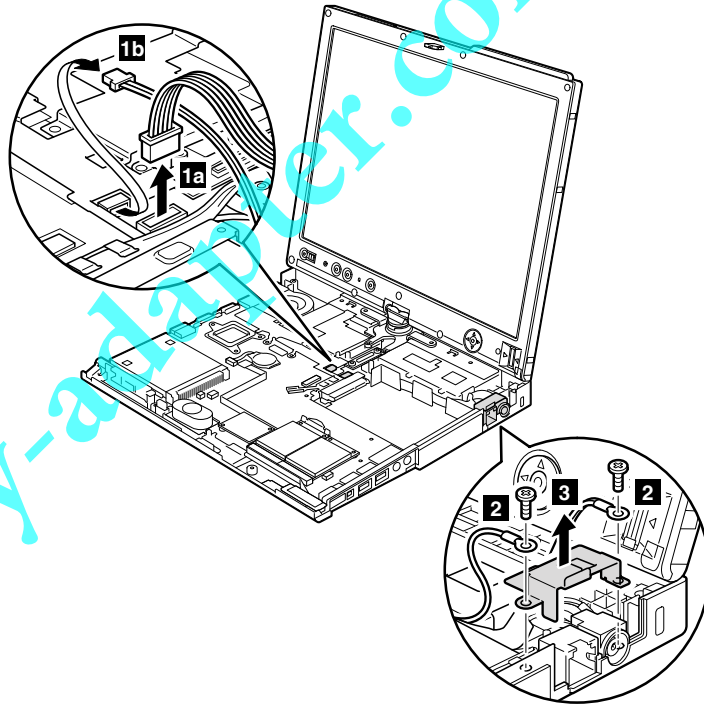
Step	Screw (quantity)	Color	Torque
<b>1</b>	M2.5 × 4 mm, wafer-head, nylon-coated (1)	Black	0.167 Nm (1.7 kgfcm)

**When installing:** Make sure that the *Bluetooth* connector is attached firmly.

## 1150 DC-in connector and modem cable

For access, remove these FRUs in order:

- "1010 Battery pack" on page 55
- "1050 Keyboard" on page 62
- "1080 Keyboard bezel for X60 Tablet" on page 67
- "1090 Palm rest for X61 Tablet" on page 68
- "1100 Keyboard bezel for X61 Tablet" on page 71



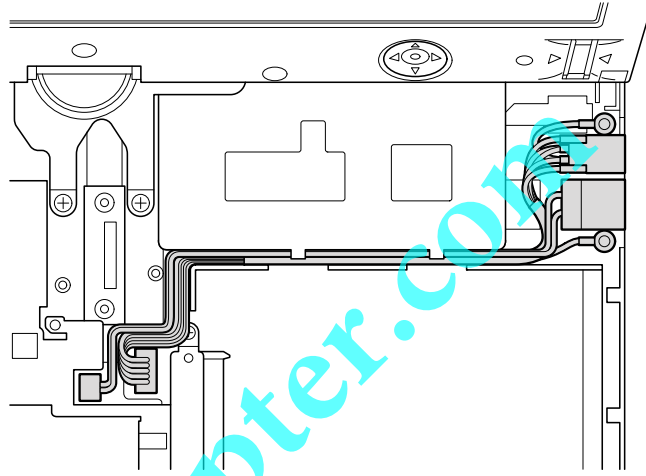
Step	Screw (quantity)	Color	Torque
<b>2</b>	M2 × 3.5 mm, wafer-head, nylon-coated (2)	Silver	0.167 Nm (1.7 kgfcm)

**When installing:** Make sure that connector is attached firmly.



*Removing and replacing a FRU*

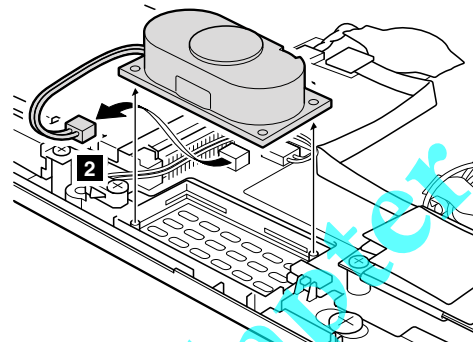
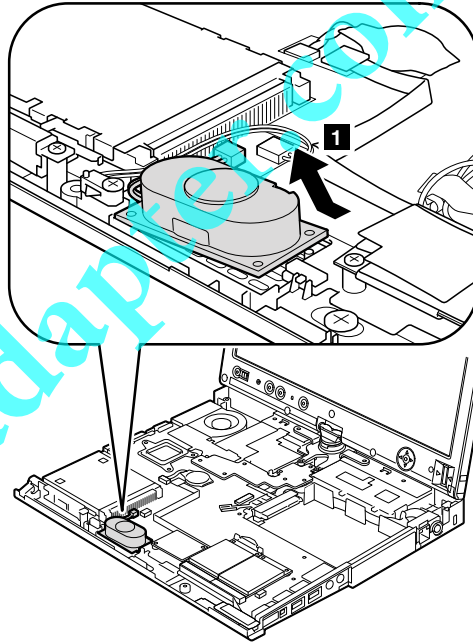
**Cable routing:** Route the cables as shown in this figure.



## 1160 Speaker assembly

For access, remove these FRUs in order:

- "1010 Battery pack" on page 55
- "1050 Keyboard" on page 62
- "1080 Keyboard bezel for X60 Tablet" on page 67
- "1090 Palm rest for X61 Tablet" on page 68



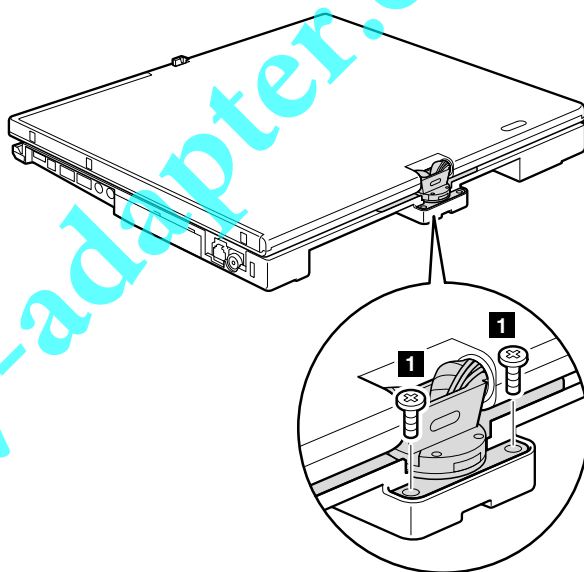
**When installing:** Make sure that the speaker connector is attached firmly.

## Removing and replacing a FRU

**1170 LCD assembly**

For access, remove these FRUs in order:

- “1010 Battery pack” on page 55
- “1040 Hinge caps” on page 60
- “1050 Keyboard” on page 62
- “1080 Keyboard bezel for X60 Tablet” on page 67
- “1090 Palm rest for X61 Tablet” on page 68
- “1100 Keyboard bezel for X61 Tablet” on page 71
- “1120 PCI Express Mini Card for wireless LAN” on page 74
- “1130 PCI Express Mini Card for wireless WAN” on page 75

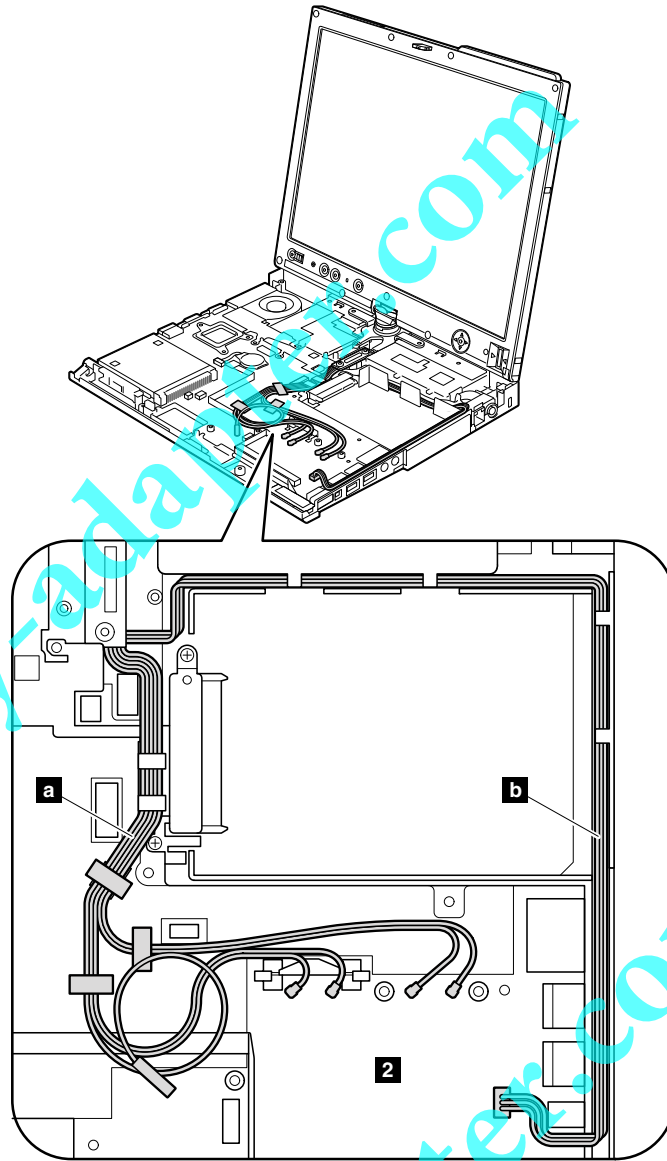


Step	Screw (quantity)	Color	Torque
<b>1</b>	M2.5 × 6 mm, wafer-head, nylon-coated (2)	Black	0.167 Nm (1.7 kgfcm)

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*Removing and replacing a FRU*

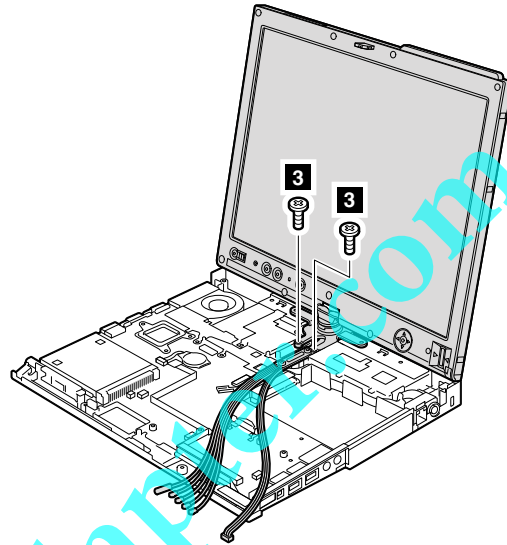
In step **2**, strip off the tapes securing the antenna cables (**a**). Then release the antenna cables and the microphone cable (**b**) from the cable guides of the frame.



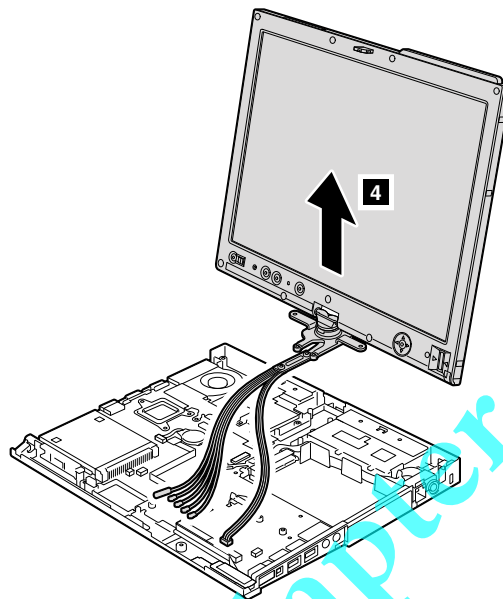
**When installing:** Make sure that the cables are routed as shown in this figure.

(continued)

Removing and replacing a FRU



Step	Screw (quantity)	Color	Torque
<b>3</b>	M2.5 × 6 mm, wafer-head, nylon-coated (2)	Black	0.167 Nm (1.7 kgfcm)

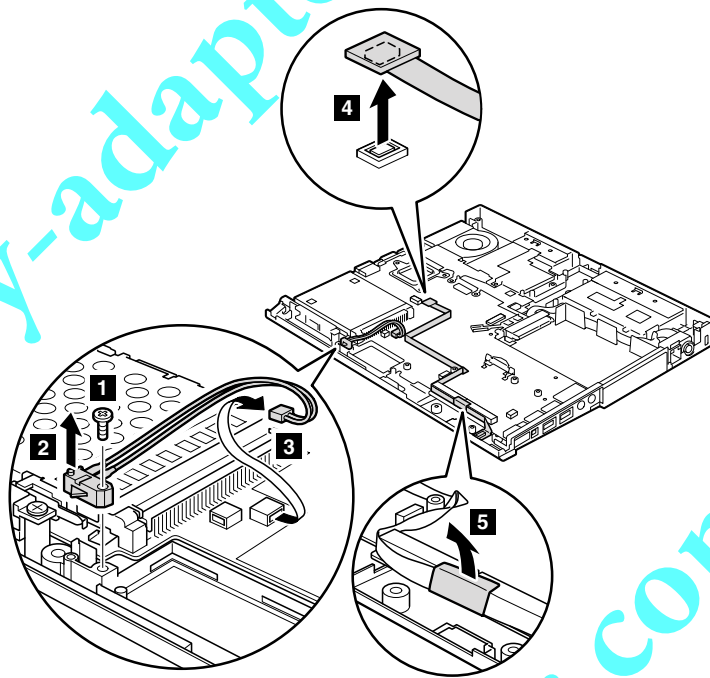


**1180 Pen switch assembly, Bluetooth cable, and base cover**

For access, remove these FRUs, in order:

- "1010 Battery pack" on page 55
- "1040 Hinge caps" on page 60
- "1050 Keyboard" on page 62
- "1080 Keyboard bezel for X60 Tablet" on page 67
- "1090 Palm rest for X61 Tablet" on page 68
- "1100 Keyboard bezel for X61 Tablet" on page 71
- "1120 PCI Express Mini Card for wireless LAN" on page 74
- "1130 PCI Express Mini Card for wireless WAN" on page 75
- "1170 LCD assembly" on page 80

Remove the pen switch assembly in steps **1** to **3**. And remove the Bluetooth cable in steps **4** and **5**.

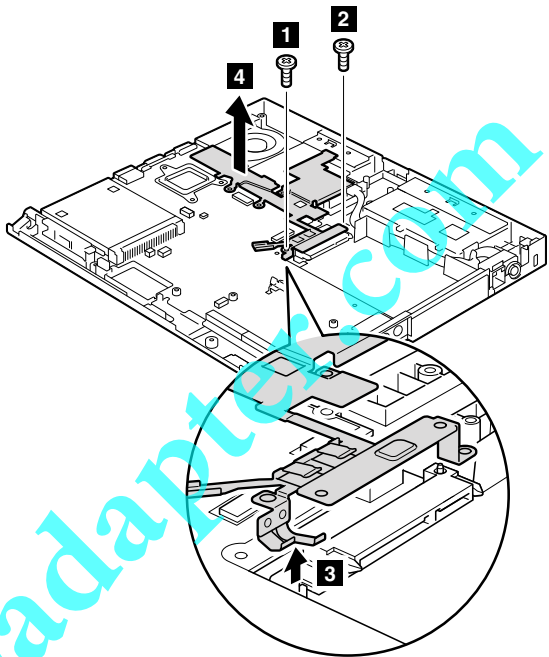


Step	Screw (quantity)	Color	Torque
<b>1</b>	M2 × 6 mm (special), wafer-head, nylon-coated (1)	Black	0.167 Nm (1.7 kgfcm)

(continued)

Removing and replacing a FRU

Remove the shield bracket.

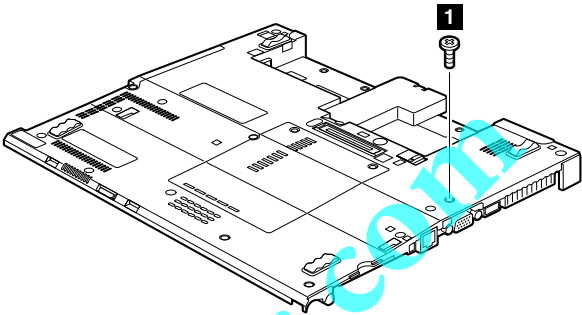


Step	Screw (quantity)	Color	Torque
1	M2 × 3.5 mm, wafer-head, nylon-coated (1)	Silver	0.167 Nm (1.7 kgfcm)
2	M2 × 3 mm, wafer-head, nylon-coated (1)	Silver	0.167 Nm (1.7 kgfcm)

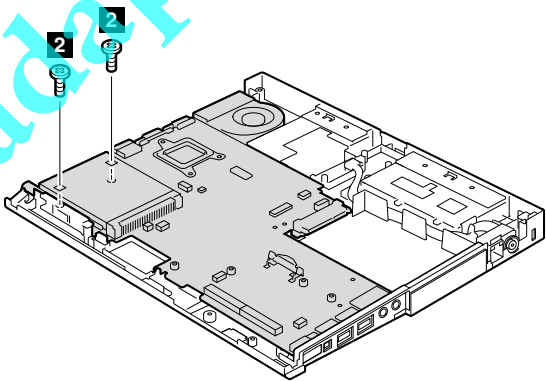
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Removing and replacing a FRU

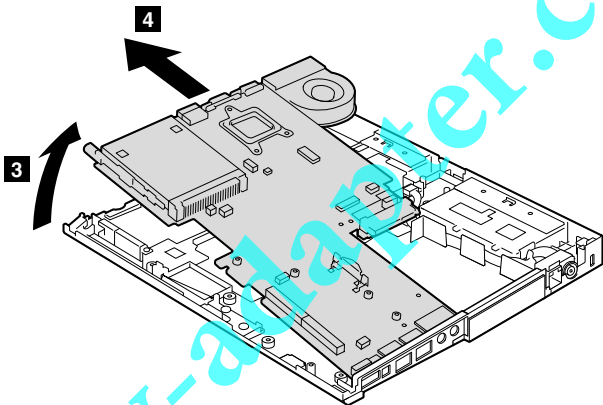
Remove the base cover as in following figures.



Step	Screw (quantity)	Color	Torque
1	M2 × 6 mm, wafer-head, nylon-coated (1)	Black	0.167 Nm (1.7 kgfcm)



Step	Screw (quantity)	Color	Torque
2	M2 × 3.5 mm, wafer-head, nylon-coated (2)	Silver	0.167 Nm (1.7 kgfcm)



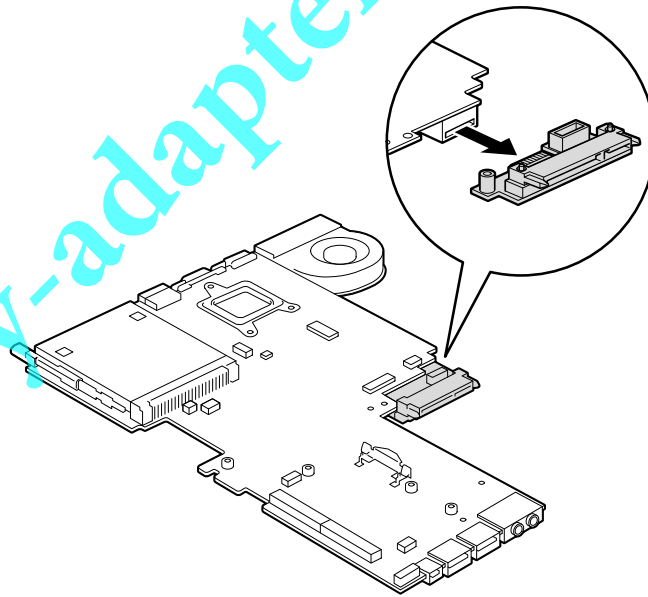


*Removing and replacing a FRU*

**1190 HDD connector sub card**

For access, remove these FRUs in order:

- "1010 Battery pack" on page 55
- "1040 Hinge caps" on page 60
- "1050 Keyboard" on page 62
- "1080 Keyboard bezel for X60 Tablet" on page 67
- "1090 Palm rest for X61 Tablet" on page 68
- "1100 Keyboard bezel for X61 Tablet" on page 71
- "1120 PCI Express Mini Card for wireless LAN" on page 74
- "1130 PCI Express Mini Card for wireless WAN" on page 75
- "1170 LCD assembly" on page 80
- "1180 Pen switch assembly, *Bluetooth* cable, and base cover" on page 83



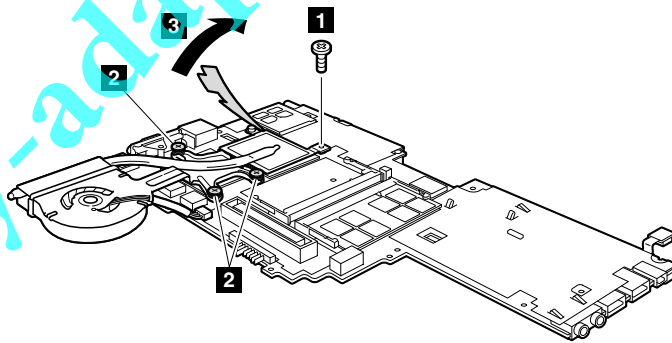
## 1200 Fan assembly

For access, remove these FRUs in order:

- "1010 Battery pack" on page 55
- "1040 Hinge caps" on page 60
- "1050 Keyboard" on page 62
- "1080 Keyboard bezel for X60 Tablet" on page 67
- "1090 Palm rest for X61 Tablet" on page 68
- "1100 Keyboard bezel for X61 Tablet" on page 71
- "1120 PCI Express Mini Card for wireless LAN" on page 74
- "1130 PCI Express Mini Card for wireless WAN" on page 75
- "1170 LCD assembly" on page 80
- "1180 Pen switch assembly, *Bluetooth* cable, and base cover" on page 83

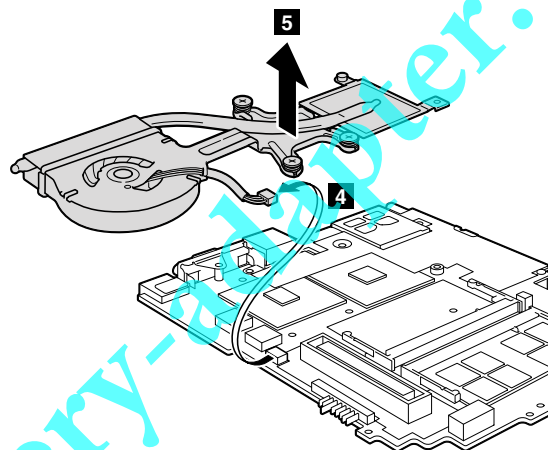
**Attention:** Do not handle the fan roughly. Improper handling of the fan can cause distortion or deformation and imperfect contact with components.

**Note:** The fan assembly is attached to the underside of the system board.



Step	Screw (quantity)	Color	Torque
1	M2 × 3.5 mm, wafer-head, nylon-coated (1)	Silver	0.167 Nm (1.7 kgfcm)

In step **2**, loosen the screws, but do not remove them.



**When installing:** Make sure that the fan connector is attached firmly.

Removing and replacing a FRU

## 1210 System board, PC Card/ExpressCard slots assembly

For access, remove these FRUs, in order:

- "1010 Battery pack" on page 55
- "1040 Hinge caps" on page 60
- "1050 Keyboard" on page 62
- "1080 Keyboard bezel for X60 Tablet" on page 67
- "1090 Palm rest for X61 Tablet" on page 68
- "1100 Keyboard bezel for X61 Tablet" on page 71
- "1120 PCI Express Mini Card for wireless LAN" on page 74
- "1130 PCI Express Mini Card for wireless WAN" on page 75
- "1170 LCD assembly" on page 80
- "1180 Pen switch assembly, *Bluetooth* cable, and base cover" on page 83
- "1190 HDD connector sub card" on page 86
- "1200 Fan assembly" on page 87

### Important notices for handling the system board

When handling the system board, bear the following in mind.

- At every point in the process, be sure not to drop or stack the system board.
- The system board has an accelerometer, which can be broken by applying several thousands of G-forces.

**Note:** Dropping a system board from a height of as little as 6 inches so that it falls flat on a hard bench can subject the accelerometer to as much as 6,000 G's of shock.

- Be careful not to drop the system board on a bench top that has a hard surface, such as metal, wood, or composite.
- If a system board is dropped, you must test it, using PC-Doctor for DOS, to make sure that the HDD Active Protection still functions (see below).

**Note:** If the test shows that HDD Active Protection is not functioning, be sure to document the drop in any reject report, and replace the system board.

- Avoid rough handling of any kind.
- If you put a system board down, be sure to put it only on a padded surface such as an ESD mat or conductive corrugated material.

After replacing the system board, run PC-Doctor for DOS to make sure that HDD Active Protection still functions. The procedure is as follows:

1. Place the computer on a horizontal surface.
2. Run **Diagnostics --> ThinkPad Devices --> HDD Active Protection Test**.

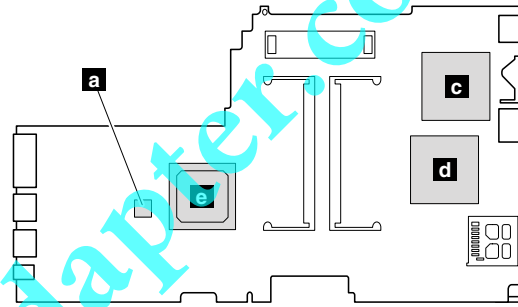
**Attention:** Do not apply physical shock to the computer while the test is running.

## Removing and replacing a FRU

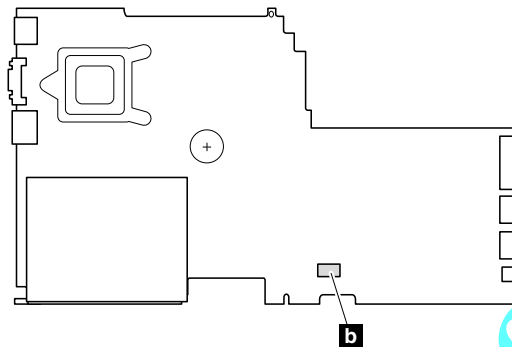
Following components soldered on the top side of the system board are extremely sensitive. When you service the system board, avoid any kind of rough handling.

- a** Accelerometer chip for the HDD Active Protection System™
- b** Security chip
- c** CPU
- d** MCH (Memory Controller Hub)
- e** ICH (I/O Controller Hub)

Top view of the system board



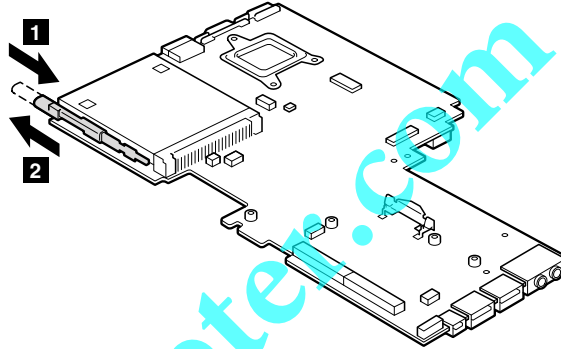
Bottom view of the system board



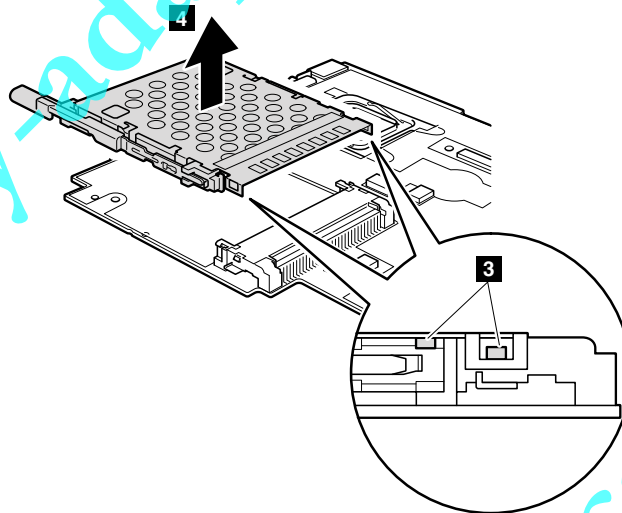
## Removing and replacing a FRU

**Note:** The PC Card slot assembly is attached to the system board.

In step **1**, press the eject button of the PC Card slot assembly. The eject button pops out.



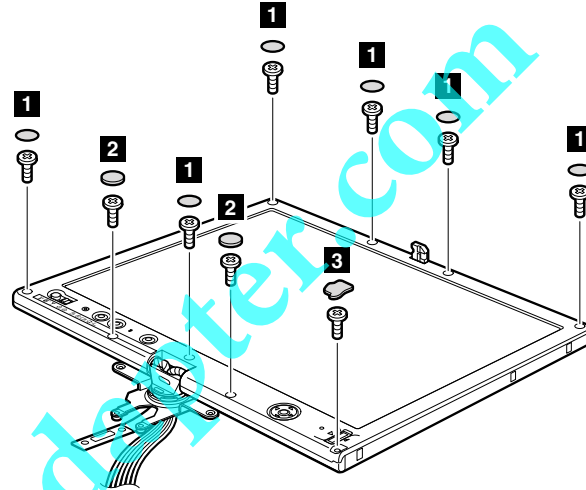
In step **3**, detach the claws of the PC Card slot assembly, and remove the PC Card slot assembly in the direction of arrow **4**.



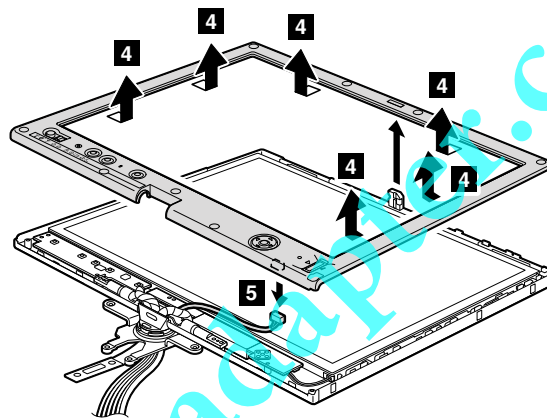
**2010 LCD front bezel**

For access, remove this FRU:

- "1010 Battery pack" on page 55



Step	Screw cap	Screw (quantity)	Color	Torque
<b>1</b>	○ (thin)	M2.5 × 8 mm, wafer-head, nylon-coated (6)	Black	0.167 Nm (1.7 kgfcm)
<b>2</b>	○ (thick)	M2.5 × 8 mm, wafer-head, nylon-coated (2)	Black	0.167 Nm (1.7 kgfcm)
<b>3</b>	□	M2.5 × 5 mm, wafer-head, nylon-coated (1)	Black	0.167 Nm (1.7 kgfcm)



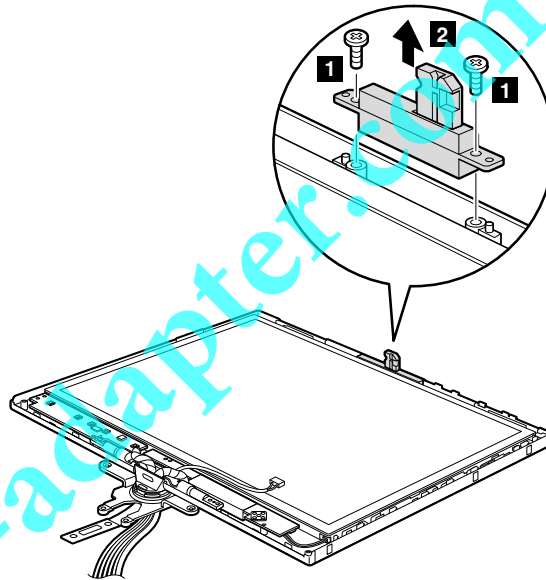
**When installing:** Make sure that the connector is attached firmly.

## Removing and replacing a FRU

### 2020 Center latch

For access, remove these FRUs in order:

- “1010 Battery pack” on page 55
- “2010 LCD front bezel” on page 91



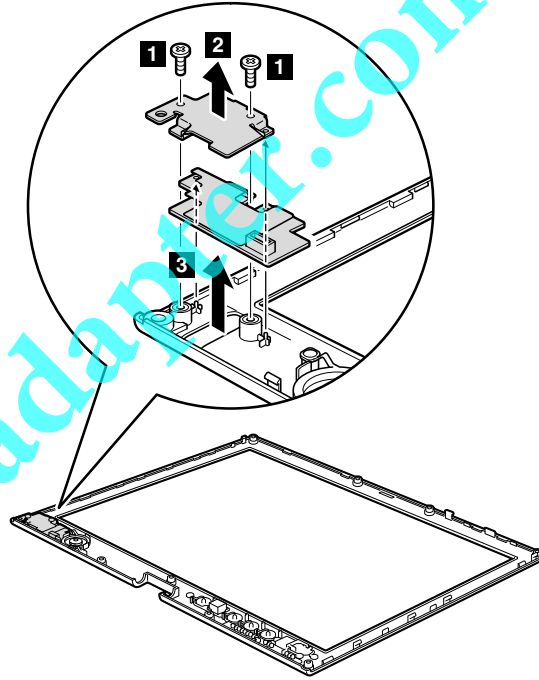
Step	Screw (quantity)	Color	Torque
1	M2 × 3.5 mm, wafer-head, nylon-coated (2)	Silver	0.167 Nm (1.7 kgfcm)

### 2030 Fingerprint reader

For access, remove these FRUs in order:

- “1010 Battery pack” on page 55
- “2010 LCD front bezel” on page 91

**Note:** Fingerprint reader is attached underside of the LCD front bezel.



Step	Screw (quantity)	Color	Torque
<b>1</b>	M2 × 3.5 mm, wafer-head, nylon-coated (2)	Silver	0.167 Nm (1.7 kgfcm)

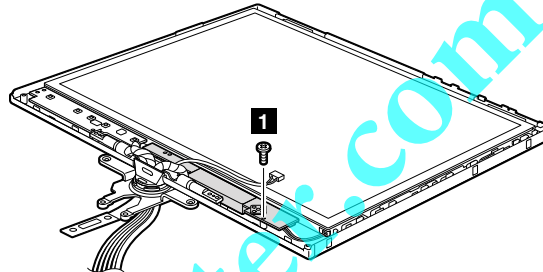


## Removing and replacing a FRU

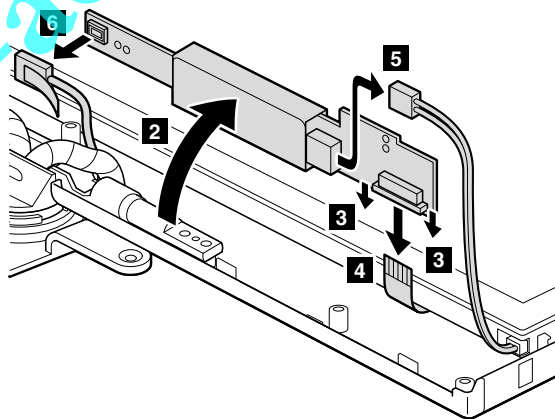
### 2040 Inverter card

For access, remove these FRUs in order:

- “1010 Battery pack” on page 55
- “2010 LCD front bezel” on page 91



Step	Screw (quantity)	Color	Torque
<b>1</b>	M2 × 3.5 mm, wafer-head, nylon-coated (1)	Silver	0.167 Nm (1.7 kgfcm)

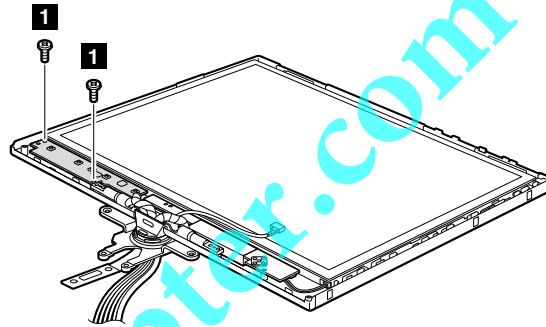


**When installing:** Make sure that connectors **4**, **5**, and **6** are attached firmly.

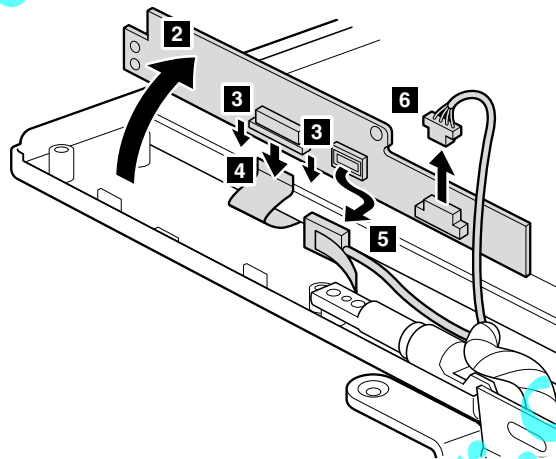
## 2050 Micro processor board

For access, remove these FRUs in order:

- "1010 Battery pack" on page 55
- "2010 LCD front bezel" on page 91



Step	Screw (quantity)	Color	Torque
<b>1</b>	M2 × 3.5 mm, wafer-head, nylon-coated (2)	Silver	0.167 Nm (1.7 kgfcm)



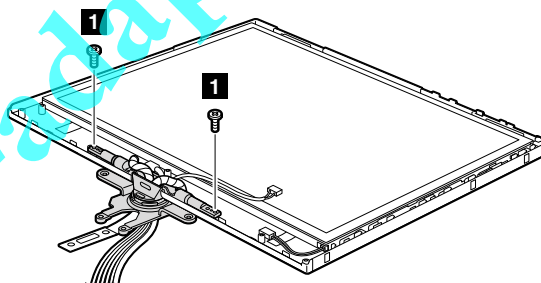
**When installing:** Make sure that connectors **4**, **5**, and **6** are attached firmly.

## Removing and replacing a FRU

**2060 Hinge and microphone cable**

For access, remove these FRUs in order:

- “1010 Battery pack” on page 55
- “1040 Hinge caps” on page 60
- “1050 Keyboard” on page 62
- “1080 Keyboard bezel for X60 Tablet” on page 67
- “1090 Palm rest for X61 Tablet” on page 68
- “1100 Keyboard bezel for X61 Tablet” on page 71
- “1120 PCI Express Mini Card for wireless LAN” on page 74
- “1130 PCI Express Mini Card for wireless WAN” on page 75
- “1170 LCD assembly” on page 80
- “1180 Pen switch assembly, *Bluetooth* cable, and base cover” on page 83
- “2010 LCD front bezel” on page 91
- “2020 Center latch” on page 92
- “2040 Inverter card” on page 94
- “2050 Micro processor board” on page 95

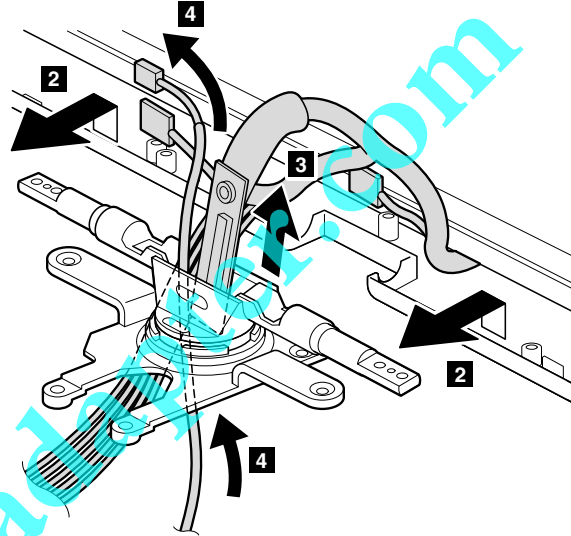


Step	Screw (quantity)	Color	Torque
<b>1</b>	M2.5 × 5 mm, wafer-head, nylon-coated (2)	Black	0.167 Nm (1.7 kgfcm)

(continued)

*Removing and replacing a FRU*

Detach the hinge from the LCD rear cover, and gently pull the microphone cable and the other cables out through the guide hole in the hinge. Pull them all at once. As you pull them, be sure not to subject them to any tension, which could cause them to be damaged by the cable guides, or could break a wire.



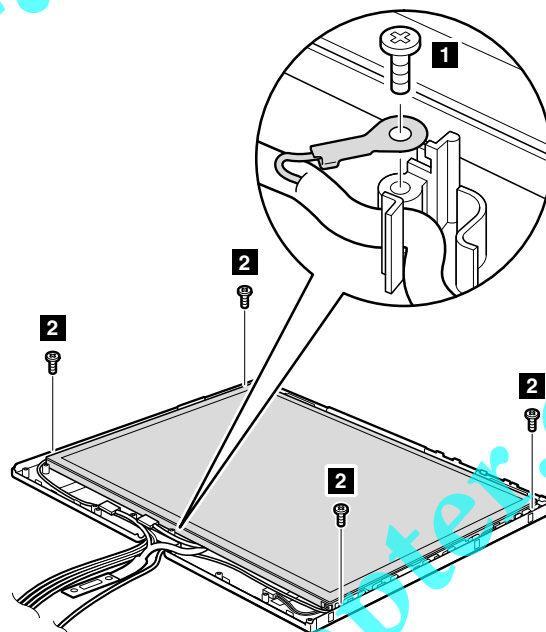
## Removing and replacing a FRU

**2070 Micro processor board/inverter card FFC (flexible flat cable), LCD panel with digitizer, and LCD cable**

For access, remove these FRUs in order:

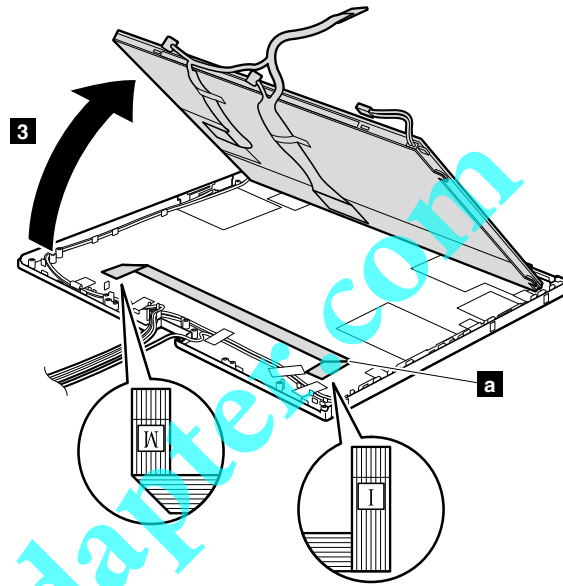
- "1010 Battery pack" on page 55
- "1040 Hinge caps" on page 60
- "1050 Keyboard" on page 62
- "1080 Keyboard bezel for X60 Tablet" on page 67
- "1090 Palm rest for X61 Tablet" on page 68
- "1100 Keyboard bezel for X61 Tablet" on page 71
- "1120 PCI Express Mini Card for wireless LAN" on page 74
- "1130 PCI Express Mini Card for wireless WAN" on page 75
- "1170 LCD assembly" on page 80
- "1180 Pen switch assembly, *Bluetooth* cable, and base cover" on page 83
- "2010 LCD front bezel" on page 91
- "2020 Center latch" on page 92
- "2040 Inverter card" on page 94
- "2050 Micro processor board" on page 95
- "2060 Hinge and microphone cable" on page 96

**Note:** The Micro processor board/inverter card FFC is under the LCD panel, and the LCD cable is attached to the LCD panel.



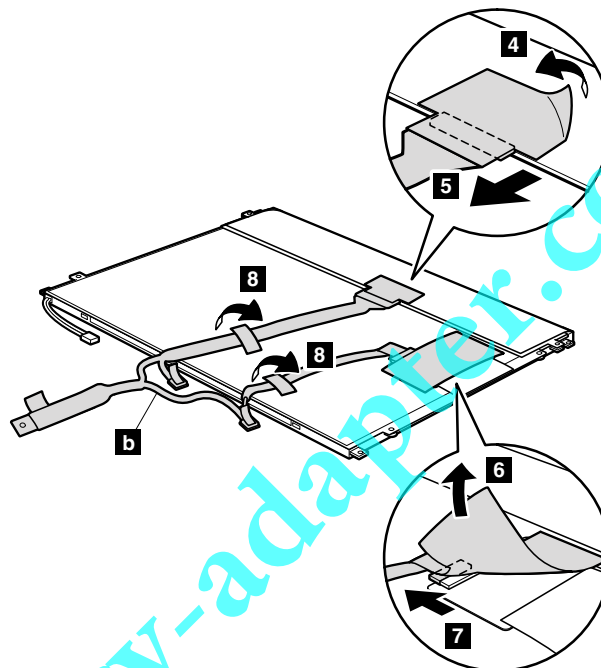
Step	Screw (quantity)	Color	Torque
<b>1</b>	M2 × 3.5 mm, wafer-head, nylon-coated (1)	Silver	0.167 Nm (1.7 kgfcm)
<b>2</b>	M2 × 3.5 mm, flat-head, nylon-coated (4)	Silver	0.167 Nm (1.7 kgfcm)

(continued)



**When installing:** Place the FFC ( **a** ) on the rear cover of the LCD, in the direction shown in the figure above.

Remove the LCD cable ( **b** ) from the LCD panel.



**When installing:** Make sure that the connectors of the LCD cable are attached firmly.

*Removing and replacing a FRU*

**2080 Wireless antenna cables and LCD rear cover**

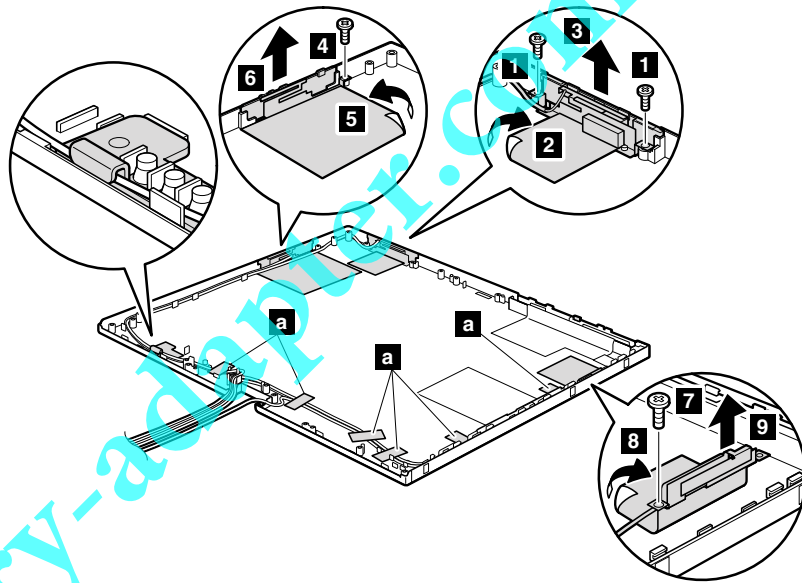
For access, remove these FRUs in order:

- "1010 Battery pack" on page 55
- "1040 Hinge caps" on page 60
- "1050 Keyboard" on page 62
- "1080 Keyboard bezel for X60 Tablet" on page 67
- "1090 Palm rest for X61 Tablet" on page 68
- "1100 Keyboard bezel for X61 Tablet" on page 71
- "1120 PCI Express Mini Card for wireless LAN" on page 74
- "1130 PCI Express Mini Card for wireless WAN" on page 75
- "1170 LCD assembly" on page 80
- "1180 Pen switch assembly, *Bluetooth* cable, and base cover" on page 83
- "2010 LCD front bezel" on page 91
- "2020 Center latch" on page 92
- "2040 Inverter card" on page 94
- "2050 Micro processor board" on page 95
- "2060 Hinge and microphone cable" on page 96
- "2070 Micro processor board/inverter card FFC (flexible flat cable), LCD panel with digitizer, and LCD cable" on page 98

(continued)

**Wireless LAN antenna cables:**

Strip off the tapes securing the antenna cables (**a**) and release the cables from the cable guide at first. Steps **1** to **3** are for the AUX antenna of the wireless LAN, steps **4** to **6** are for the 3rd antenna of the wireless LAN, and steps **7** to **9** are for the MAIN antenna of the wireless LAN. Some models do not have a 3rd antenna.



Step	Screw (quantity)	Color	Torque
<b>1</b>	M2 × 3.5 mm, wafer-head, nylon-coated (2)	Silver	0.167 Nm (1.7 kgfcm)
<b>4</b>	M2 × 3.5 mm, wafer-head, nylon-coated (1)	Silver	0.167 Nm (1.7 kgfcm)
<b>7</b>	M2 × 2.5 mm, wafer-head, nylon-coated (1)	Silver	0.167 Nm (1.7 kgfcm)

(continued)

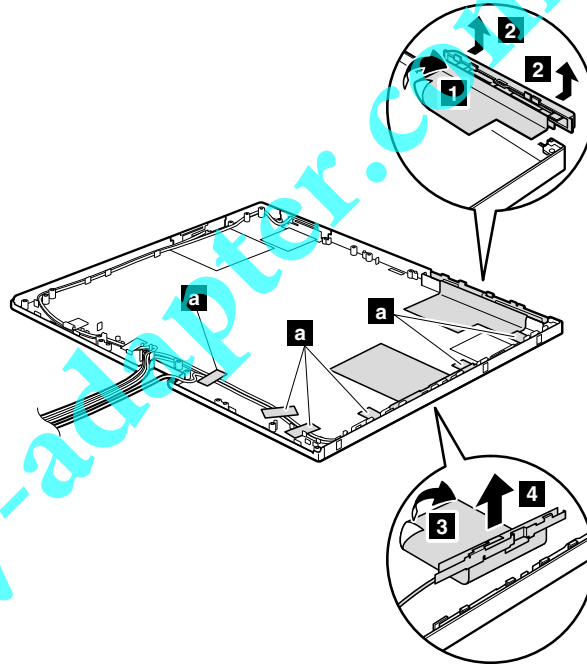


## Removing and replacing a FRU

### Wireless WAN antenna cables:

Strip off the tapes securing the antenna cables (**a**) at first. Steps **1** and **2** are for the wireless WAN MAIN antenna, and steps **3** and **5** are for the wireless WAN AUX antenna. Some models do not have these antennas.

Remove the wireless WAN antenna cables as follows:



**Cable routing:** When you attach the antenna cables, route the cables as shown in this figure.

