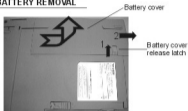


Satellite/Satellite Pro™

220/440/460/470/480 Series

BATTERY REMOVAL



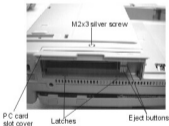
1. Push the **Battery cover release latch** in the direction of the arrow and hold it in the unlatch position.
2. Slide the **Battery cover**, then lift off the cover.
3. Push back the **Battery latch**, then lift out the **Battery pack**.

OPTIONAL PCMCIA CARD REMOVAL



Eject button PC card slot cover PC card

1. Open the **PC card slot cover**.
2. Slide the **PC card lock** to the unlock position.
3. Pull out the **eject button** and press the button to pop the PC card out slightly.
4. Grasp the PC card and remove it.



PC card slot cover Latches Eject buttons

5. Remove one **M2x3 silver screw** securing the PC card slot cover.
6. Make sure the **eject buttons** are pulled out.
7. Release **two latches** and remove the **PC card cover**.

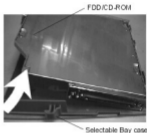
TOSHIBA

Tough Enough for Today's World.

Satellite/Satellite Pro™

220/440/460/470/480 Series

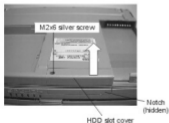
FDD/CD-ROM REMOVAL



1. Slide the **Selectable Bay lock** in the direction of the arrow to unlock the FDD/CD-ROM.
2. Slip a coin into the **eject notch** and twist to disconnect the FDD/CD-ROM.

3. Slide the FDD/CD-ROM out, then lift it out.
4. Remove the FDD/CD-ROM from the **Selectable Bay case**.

HDD REMOVAL



1. Remove **one M2x6 silver screw**
2. Lift up the **HDD slot cover** and remove it.
3. Grasp the HDD case and gently pull it out.



TOSHIBA

Tough Enough for Today's World.

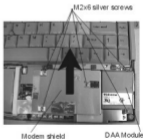
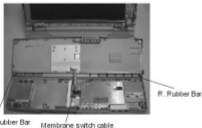
Satellite/Satellite Pro™

220/440/460/470/480 Series

PALM REST and MODEM REMOVAL



1. Remove **two M2x6 silver screws** from the front of the computer.
2. Turn the computer rightside up and open the display.
3. Pull the **palm rest** to the front of the computer then **lift up the palm rest**.



1. Carefully pull on the **left rubber bar** to remove it from the groove on the palm rest.
2. Disconnect the **membrane switch cable** from PJ26.
3. Carefully pull on the **right rubber bar** to remove it from the groove on the palm rest.

1. Remove **three M2x6 silver screws** securing the **modem shield** and modem.
2. Remove **two M2x6 silver screws** securing the **DAA module**.
3. Disconnect the Modem board from PJ16 on the system board and lift out the modem board and the **DAA module**.

TOSHIBA

Tough Enough for Today's World.

Satellite/Satellite Pro™

220/440/460/470/480 Series

DISPLAY and KEYBOARD ASSEMBLY



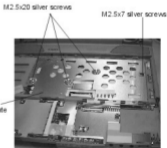
1. Turn the computer upside down and remove **two M2.5x7 silver screws** and **two M2.5x30 silver screws**.
2. Turn the computer rightside up and open the Display.



1. Release five latches securing the Keyboard Brace and lift it out.



1. Lift out the Keyboard to access the Keyboard cable.
2. Disconnect the Keyboard cable from PJ11 and remove the keyboard.



1. Remove **three M2.5x20 silver screws** and **one M2.5x7 silver screw** securing the metal plate.
2. Rotate the right edge of the metal plate up slightly and lift it out.

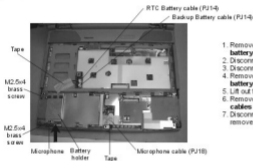
TOSHIBA

Tough Enough for Today's World.

Satellite/Satellite Pro™

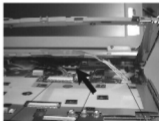
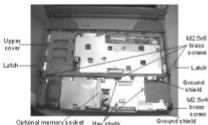
220/440/460/470/480 Series

RTC, BACKUP BATTERY and MICROPHONE



1. Remove the **tape** on the RTC and Backup battery cables.
2. Disconnect the RTC battery cable from PJ8.
3. Disconnect the Backup battery cable from PJ14.
4. Remove **two M2.5x4 brass screws** securing the battery holder and lift it out.
5. Lift out the RTC and Backup batteries.
6. Remove the **tape** covering the microphone and audio cables and connectors.
7. Disconnect the microphone cable from PJ18 and remove the microphone.

DISPLAY ASSEMBLY REMOVAL



1. Remove **three M2.5x6 brass screws** from the front edge of the upper cover. Remove the **ground shield**.
2. Remove **three Hex studs** and **one M2.5x4 brass screw**.
3. Release **two latches** securing the upper cover and rotate the cover with the display assembly slightly to access the LCD cables.

1. Disconnect the LCD cables and FL cable. **Note:** Never remove connector by pulling on the cable.
2. Tilt the front edge of the upper cover upward so that the USB port is not caught on the rim of the corresponding hole of the upper cover.
3. Lift off the upper cover with the display assembly.

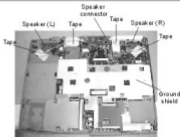
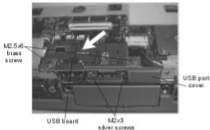
TOSHIBA

Tough Enough for Today's World.

Satellite/Satellite Pro™

220/440/460/470/480 Series

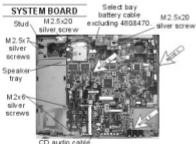
USB PORT and SPEAKERS



Note: The USB and system boards are shipped as one complete module. There is no need to separate these two modules.

1. Remove the **Ground shield** covering the system board and keep for reassembly.
2. Remove **four pieces of tape** securing the **speakers** and speaker/power supply cables.
3. Disconnect the **speaker cables** from **PJ22** and remove the speakers.

SYSTEM BOARD



1. Disconnect the **Select Bay battery cable** from **PJ15**.
2. Remove two **M2.5x7** screws securing the speaker tray.
3. Press power button then lift out the speaker tray and stud at an angle so the power switch is not caught on the corresponding hole of the bottom cover.
4. Disconnect the **CD audio cable** from **PJ20**.
5. Remove **two M2.5x20** screws and **two M2x6** screws.
6. Carefully pull the rear edge of the **system board** up and disconnect **PJ13** on the system board from **PJ501** on the PS board.
7. Lift out the system board from the bottom cover.

Note 1: Before seating the system board, make sure the PC card eject buttons are pushed in and aligned with the PC card cover assembly and functional.

Note 2: Since the PCB is fragile around the audio ports care should be taken when removing or installing the system board.

Note 3: The system board and power supply connect on the underside, so gently push down around the white arrow until both boards snap together.

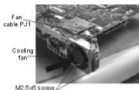
TOSHIBA

Tough Enough for Today's World.

Satellite/Satellite Pro™

220/440/460/470/480 Series

COOLING FAN



1. Remove two M2.5x6 screws securing the cooling fan.
 2. Turn the system board rightside up and disconnect the fan cable from P.J1.
 3. Remove the cooling fan from the system board.
- Note.** The cooling fan is not part of the system board and should not be returned with the defective system boards.

DISPLAY MASK

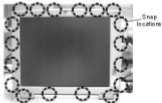


1. Remove **mask seal** and **name seal** at the hinges to expose **two M2.5x7 silver screws** securing the **display mask**.
2. Remove the **two M2.5x7 silver screws** that were covered by the seals.
3. A total of 18 snaps secure the display mask. Carefully insert your fingers between the mask and the LCD panel and pry open the snaps. Start with six snaps across the top of the display mask.

PS BOARD



1. Remove the **insulator**.
2. Rotate the edge of the **HDD slot cover** up slightly and lift it out.
3. Disconnect the **power supply cable** from P.J510.
4. Disconnect the **secondary battery cable** from P.J509.
5. Disconnect the **Selectable Bay cable** from P.J508.
6. Lift out the cable holder with the Selectable Bay, secondary battery and CD audio cables.
7. Lift out the PS board at an angle so the DC-IN, PS/2 mouse/keyboard and external FDD ports are not caught on the corresponding holes in the bottom cover.
8. Remove two M2x4 screws and separate the Selectable Bay cable from cable holder. Do not pull too hard on the Selectable Bay cable.



1. Continue unsnapping the mask along the sides (4 snaps on each side), at the bottom (2 snaps) and at the hinges (2 snaps).

TOSHIBA

Tough Enough for Today's World.

Satellite/Satellite Pro™

220/440/460/470/480 Series

FL INVERTER and SCREEN



1. Remove **two M2.5x7 silver screws** securing the **FL inverter board**.
2. Carefully rotate the **FL inverter board** out from right to left and disconnect the **FL inverter cable** from **CH1** and the **HV cable** from **CH2**.
3. Remove **one M2.5x4 silver screw** securing the contrast board. **ON CDS MODELS ONLY!**
4. Disconnect the **contrast board cable** from **PJ1** on the contrast board and lift out the board.
5. Remove **four M2.5x7 silver screws** securing the **LCD module** to the LCD cover.
6. Carefully rotate the **LCD module** from right to left out of the LCD cover.
7. Disconnect the **LCD cable** from the **LCD module** and remove the LCD from the computer.

TOSHIBA

Tough Enough for Today's World.