SERVICE MANUAL

notebook

Notebook Computer

5600D

Service Manual

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About this Manual

This manual is intended for service personnel who have completed sufficient training to undertake the maintenance and inspection of personal computers.

It is organized to allow you to look up basic information for servicing and/or upgrading components of the computer.

The following information is included:

Chapter 1, Introduction, provides general information about the location of system elements and their specifications.
Chapter 2, Disassembly, provides step-by-step instructions for disassembling parts and subsystems and how to upgrade elements of the system.
Appendix A, Part Lists
Appendix B, Schematic Diagrams

Related Documents

You may also need to consult the following manual for additional information:

User's Manual on CD
This describes the computer's features and the procedures for operating the computer and its ROM-based setup program. It also describes the installation and operation of the utility programs provided with the computer.

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1: Introduction

Overview

This manual covers the information you need to service or upgrade the 5600D/5620D/5800D/5820D notebook computer. Information about operating the computer (e.g. getting started, and the *Setup* utility) is in the *User's Manual*. Information about drivers (e.g. VGA & audio) is also found in *User's Manual*. That manual is shipped with the computer.

Operating systems (e.g. *DOS, Windows 9x, Windows NT 4.0, Windows 2000, Windows XP, OS/2 Warp, UNIX,* etc.) have their own manuals as do application software (e.g. word processing and database programs). If you have questions about those programs, you should consult those manuals.

The 5600D/5620D/5800D/5820D notebook is designed to be upgradeable. See ***"Disassembly" on page 2 - 1*** for a detailed description of the upgrade procedures for each specific component. Please note the warning and safety information indicated by the " " symbol.

The balance of this chapter reviews the computer's technical specifications and features.

System Specifications

Processor

- Intel Pentium 4 Processor - (478-pin) FC-PGA2 package
  (µ0.13) 0.13 Micron Process Technology - 2.0/2.2/2.26/2.4/2.5/2.53/2.6/2.66/2.8 GHz
- Intel Celeron Processor - (478-pin) uPGA package
  (µ0.13) 0.13 Micron Process Technology - 1.7/1.8 GHz

Core Logic

- Intel® 845E

Structure

- All-in-one
- Compliant to PC99 standard

Security

- Security (Kensington® type) Lock Slot

Memory

- Two 200Pin SODIMM sockets, DDR200/266 MHz DDR devices
- Expandable memory up to 1024 MB, depends on 128/256/512MB SODIMM Modules

BIOS

- One 512KB Flash ROM
- Phoenix BIOS

LCD

- 14.1" XGA 1024x768/ SXGA+ 1400x1050, 15.0" XGA 1024X768, 15.0" SXGA+ 1400x1050, 15.0" UXGA 1600x1200, 15.0" QXGA 2048x1536

Display

- ATI Mobility Radeon 9000 high performance chip
- Support AGP™ 4X
- Integrated 128-bit 2D / 3D Graphics Accelerator
  Advanced HW Acceleration for DVD Playback
  Fully DirectX 8.1 with Hardware
- External memory up to 32/64 MB DDR SGRAM on board
- Dual-view Display Monitor
- Support resolution up to 2048x1536

Storage

- 3.5" 3-mode FDD, and secondary battery bay one only
- DVD-ROM 12.7mm (h), OR CD-ROM 12.7mm (h), OR CD-RW 12.7mm (h), OR Combination DVD-ROM / CD-RW 12.7mm (h) drive for all bays
- Easy changeable 2.5" 9.5 mm (h) HDD
- Support Master mode IDE, support PIO mode 4 / ATA-33/66/100 (Ultra DMA)

Audio

- AC'97 2.1 Compliant Interface
- 3D stereo enhanced sound system
- Compatible Sound-Blaster PRO™
- S/PDIF Digital output (5.1 CH)
- Built in microphone
- Audio DJ
- Built in 2 speakers 1 watt 36F, 8O

PC Card

- One PCMCIA 3.3V/5V sockets, one type II
- Supports CardBus

Interface

- Built in TouchPad (Scroll functionality included)
- Four USB ports
- One IEEE 1394 port
- One S-Video jack for TV output
- One parallel port (LPT1), support ECP/EPP
- Infrared file transfer, IrDA 1.1 FIR/SIR/ASKIR
- External CRT monitor
- One PS/2 port support mouse and keyboard (through Y cable)
- One headphone-out jack
- One microphone-in jack
- One RJ-11 jack for MDC Modem
- One RJ-45 jack for LAN
- DC-in jack
- Built-in 3 instant keys, www, email, and Player

Communication

- Infrared transfer: 115.2K bps SIR/ 4M bps FIR, 1cm ~ 1M operating distance, IrDA 1.1 compliant
- 10/100Mb Ethernet LAN built-in
- 802.11b Wireless LAN mini-PCI interface (option)
- 56K MDC Modem with V.90 & V.92 compliant

Power Management

- Supports ACPI v1.0b
- Supports suspend to RAM (S3)
- Supports suspend to disk (S4)
- Modem resume from system suspend
- Cover switch

Power

- Full Range AC adapter - AC in 100~240V, 50~60Hz DC Output 20V, 6.0A. 120W
- Main battery smart Li-Ion 59W (removable)
- Second battery smart Li-Ion 50W (removable)

Indicators

- LED indicator (HDD, Suspend/Power on/ AC-In, Battery Charging/Battery full, E-mail, Num Lock, Caps Lock, Scroll Lock)

Environmental Spec

• Temperature	Relative Humidity
• Operating: 5°C~ 35°C	Operating: 20% ~ 80%
• Non-Operating: -20°C ~ 60°C	Non-Operating: 10% ~ 90%

Physical Dimensions

- 329 (w) x 290 (d) x 44 (h) mm

Weight

- 3.4 ~ 3.7 kg without battery

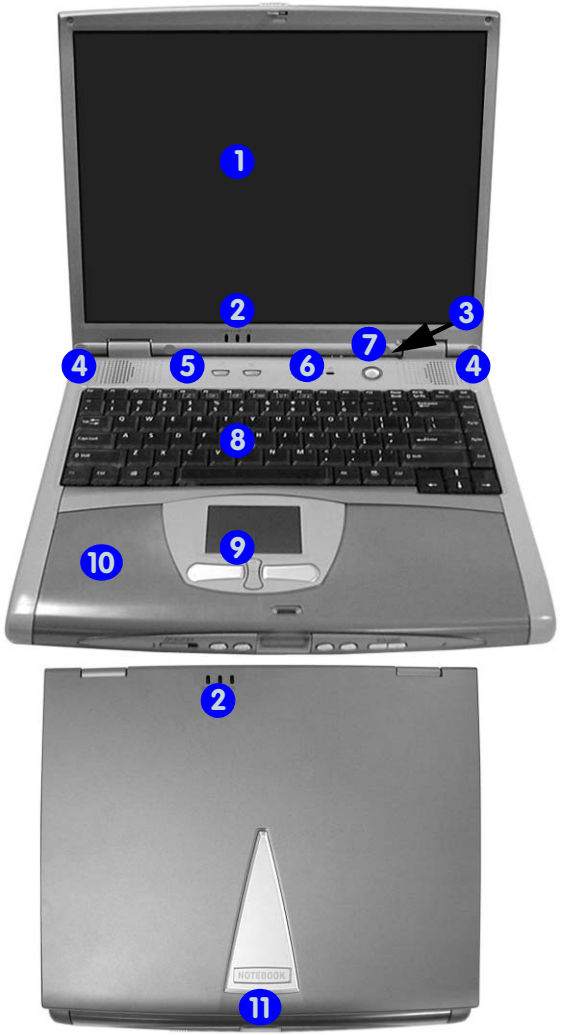
Optional

- Secondary battery pack
- DVD-ROM Drive
- CD-RW Drive
- DVD-ROM and CD-RW Combo Drive
- Software DVD Player
- Wireless LAN module

External Locator - Top Views

Figure 1 - 1
Top Views

1. LCD
2. LED Power & E-Mail Indicators
3. Close Cover Switch
4. Speakers
5. Hot-Key buttons
6. LED Status Indicators
7. Power Button
8. Keyboard
9. TouchPad and Buttons
10. Palm Rest (Removable)
11. LCD Latch

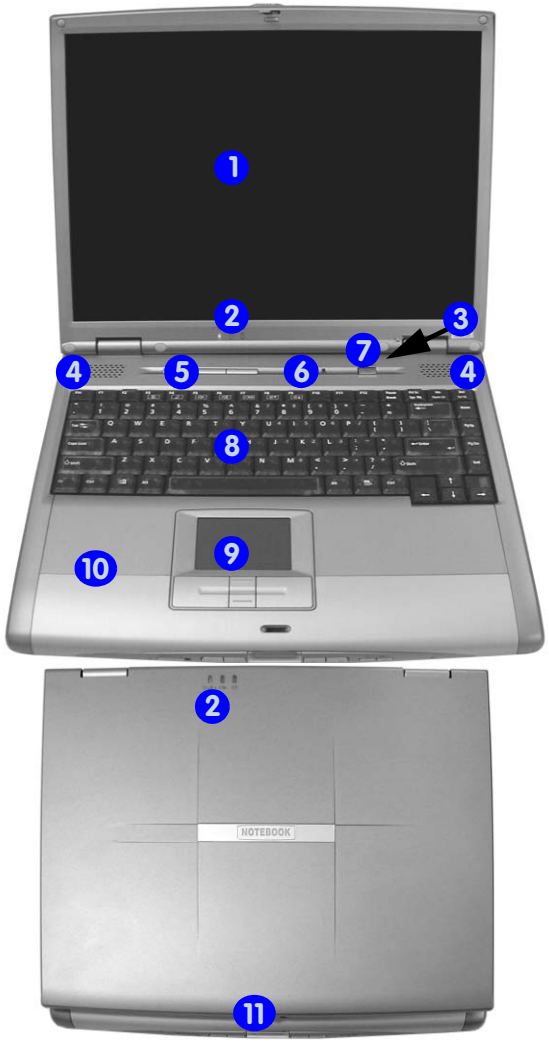


Model A

Model Differences

This manual refers to the two notebook models pictured on this page.

The models vary slightly in external design. Photographs used throughout this manual are of Model A.



Model B

Front View

Figure 1 - 2
Front View

1. LCD Latch
2. Audio “DJ” CD Player Control Panel On/Off Switch
3. Previous Track
4. Next Track
5. LCD
6. Play Pause
7. Stop
8. Volume Down
9. Volume Up
10. Built-In Microphone

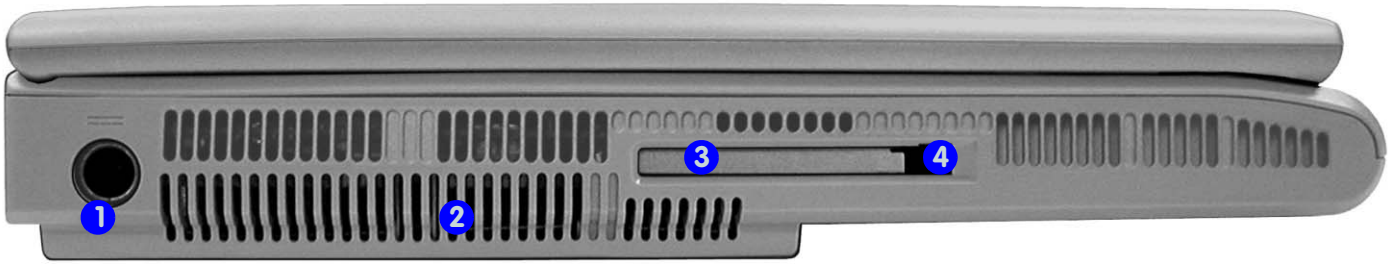


Figure 1 - 3
Left Side View

1. DC-In Jack
2. Vent
3. PC Card Slot
4. PC Card Eject Button

External Locator - Right & Rear Views

Figure 1 - 4
Right Side View

1. Device Bay One
2. Device Bay Two
3. Infrared Transceiver

Figure 1 - 5
Rear View

1. Security Lock
2. Microphone-In Jack
3. Headphone-Out Jack
4. S/PDIF Out Port
5. Mini - IEEE 1394 Port
6. 4 USB Ports
7. RJ-11 Phone Jack
8. RJ-45 LAN Jack
9. S-Video Connector
10. External Monitor (CRT) Port
11. Parallel Port
12. PS/2 Type Port
13. Vents

External Locator - Bottom View

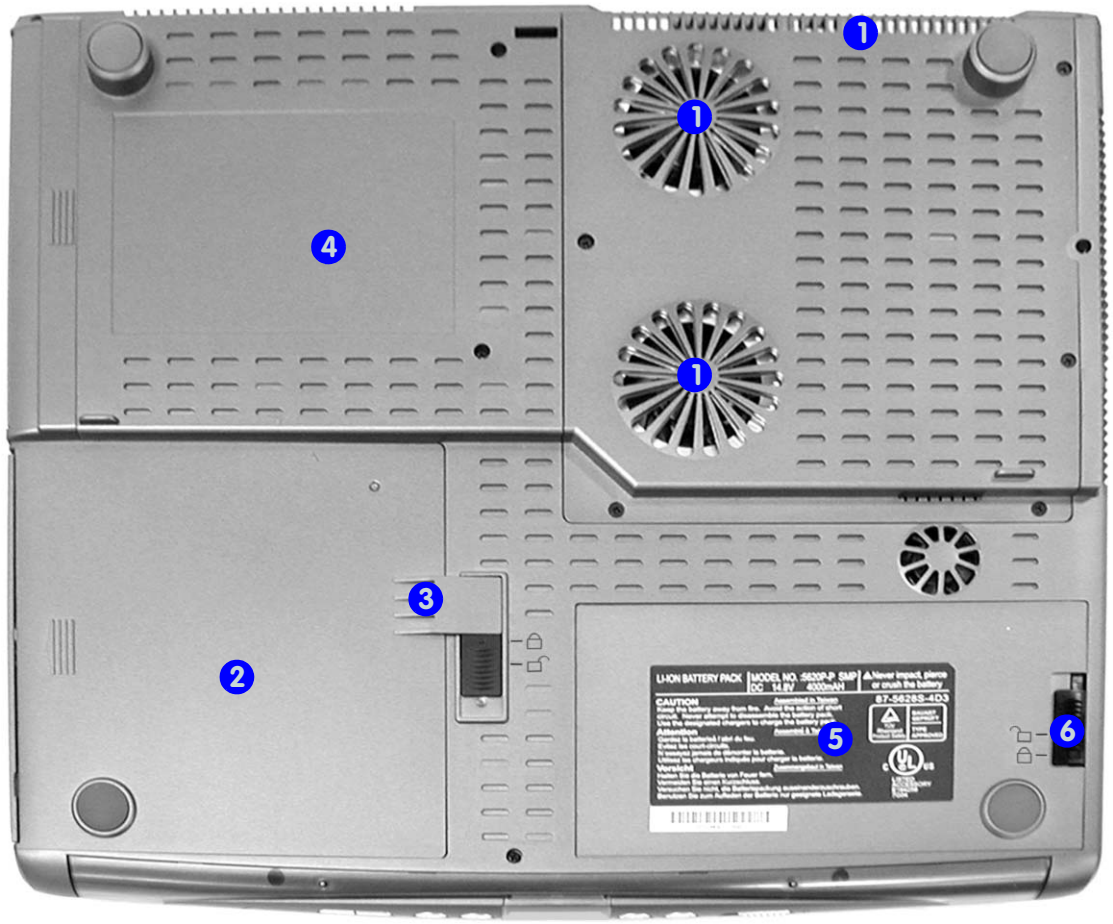


Figure 1 - 6
Bottom View

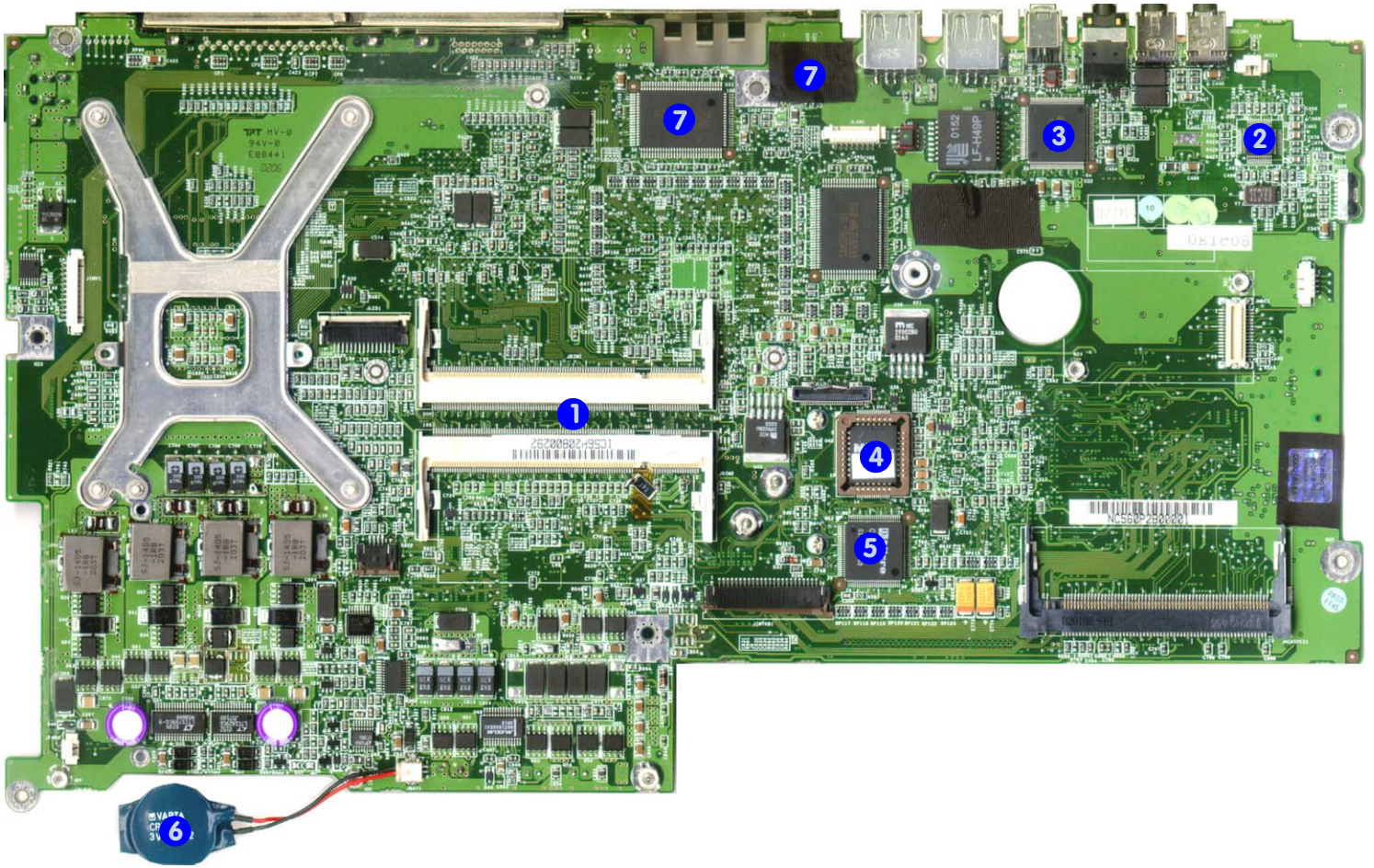
1. Vent/Fan Outlets
2. Device Bay One
3. Device Bay One Release Latch
4. Device Bay Two
5. Battery
6. Battery Release Latch

Mainboard Overview - Top

Key Parts

Figure 1 - 7
Mainboard Overview - Top Key Parts

1. 2 * SO-DIMM sockets
2. AC”97 Codec
3. TI 1394 Controller
4. Flash BIOS ROM
5. Audio DJ Controller
6. CMOS Battery
7. On-Board Video Memory



Mainboard Overview - Bottom

Key Parts

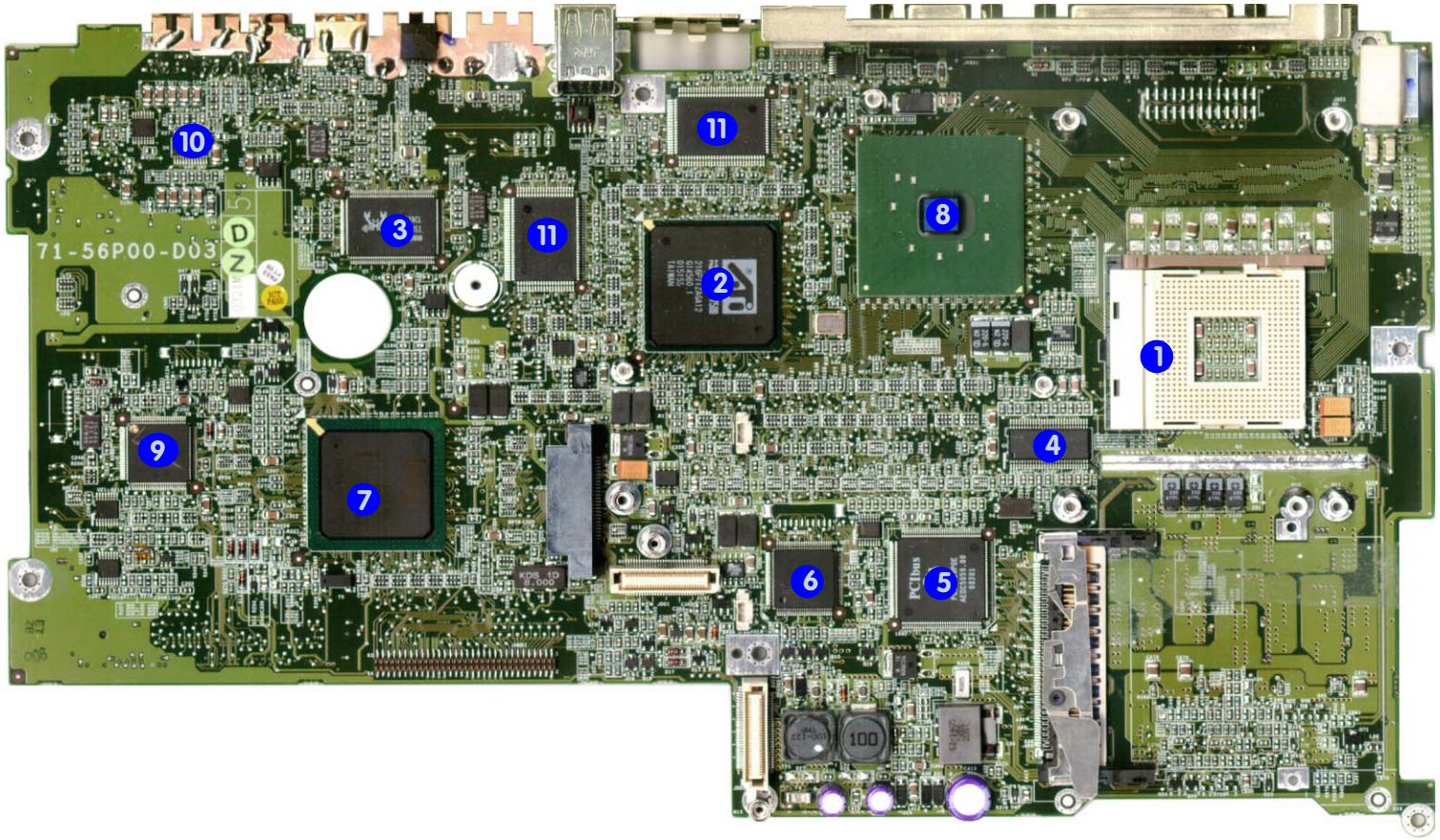


Figure 1 - 8
Mainboard Overview - Bottom Key Parts

1. CPU Socket (no CPU installed)
2. VGA Chip - ATI M7-P
3. LAN Controller - RTL8139
4. Clock Generator
5. PCI Bus1410 Controller
6. Super IO NS87393
7. Southbridge Intel ICH3 421 EBGA
8. Northbridge Intel MCH 845-MP Brookdale 593 FCBGA
9. H8 Keyboard Controller
10. Audio AMP TI-TPA0132
11. On-Board Video Memory

Mainboard Overview - Top

Cable Connectors

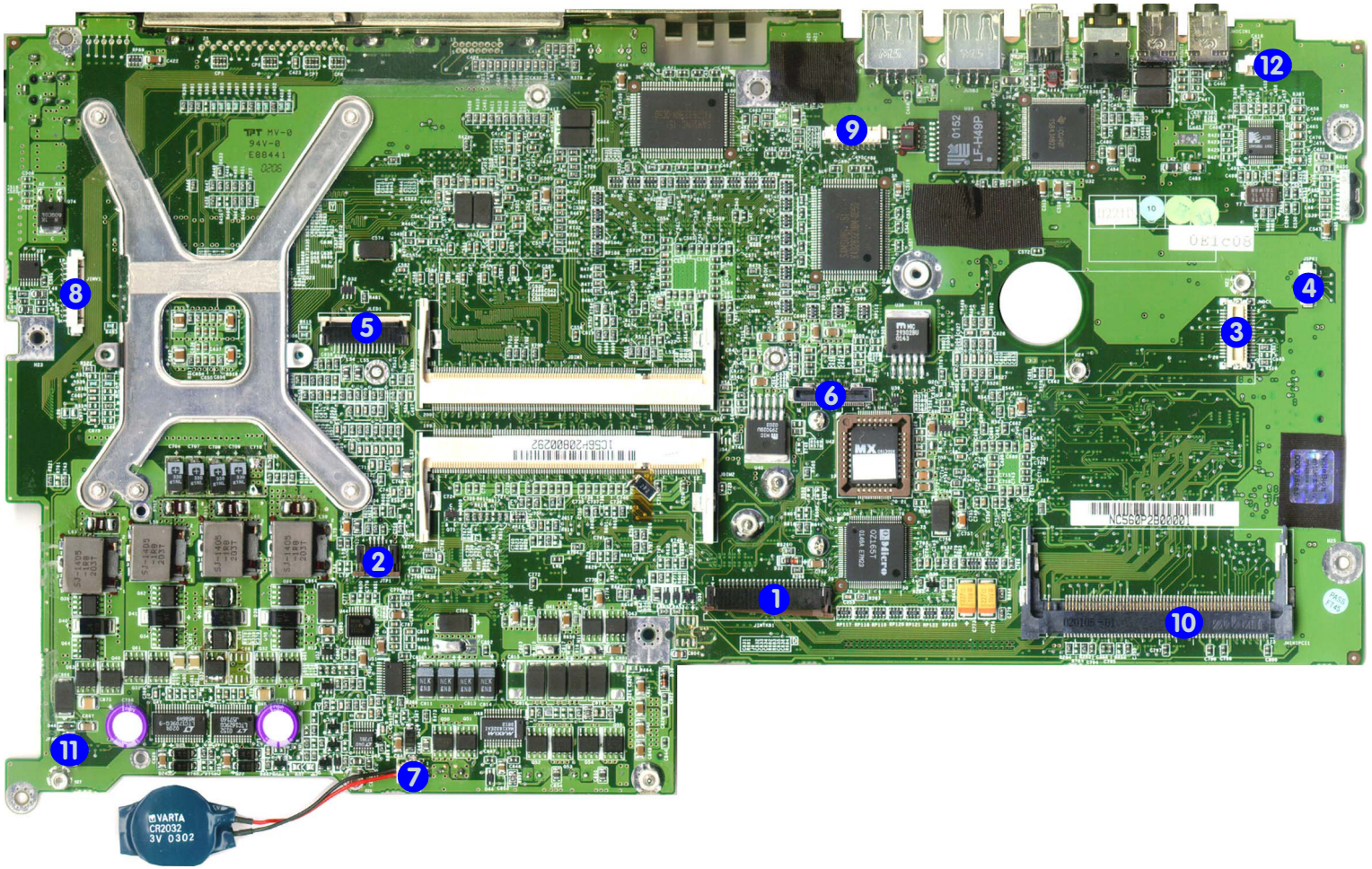


Figure 1 - 9
Mainboard Overview - Top Cable Connectors

1. JINTKB1 (Keyboard Connector)
2. JTP1 (TouchPad Connector)
3. JMDC1 (Modem Connector)
4. JSPK1 (Speaker Connector)
5. JLED1 (LED Connector)
6. JLCD1 (LCD Connector)
7. JBAT1 (CMOS Battery Connector)
8. JINV1 (Inverter Connector)
9. JLAN1 (LAN Connector)
10. JMINPCI1 (Wireless LAN Connector)
11. JFAN3 (Fan Connector)
12. JMIC1 (Microphone Connector)

Mainboard Overview - Bottom

Cable Connectors

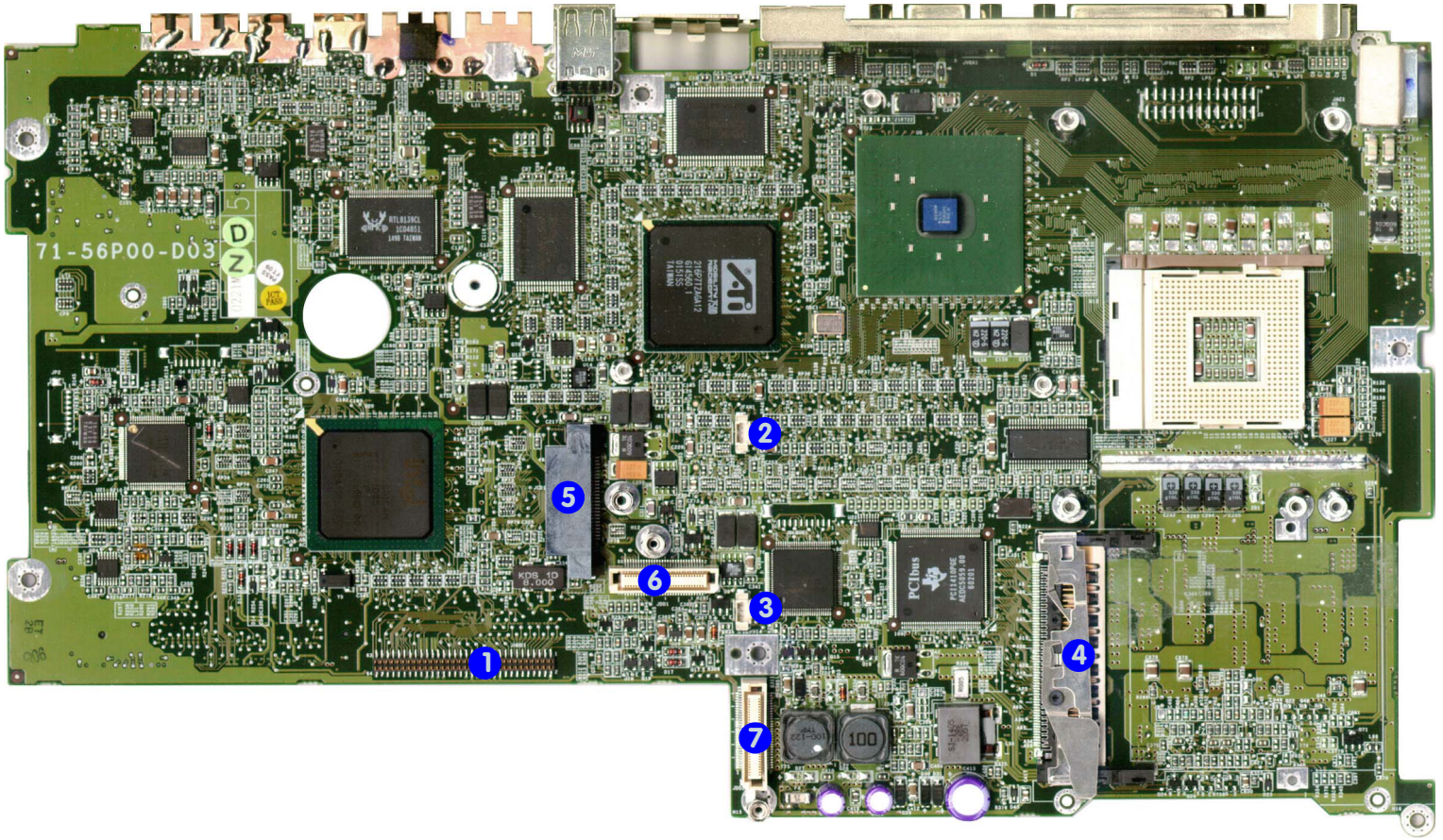


Figure 1 - 10
Mainboard Overview - Bottom Cable Connectors

1. JHDD1 (Hard Disk Connector)
2. JFAN1 (Fan Connector)
3. JFAN2 (Fan Connector)
4. PCMCIA Connector
5. JCD1 (Bay One Device Connector)
6. JDD1 (DC/DC Board Connector)
7. JDD2 (DC/DC Board Connector)

2: Disassembly

Overview

This chapter provides step-by-step instructions for disassembling parts and subsystems. When it comes to reassembly, reverse the procedures (unless otherwise indicated).

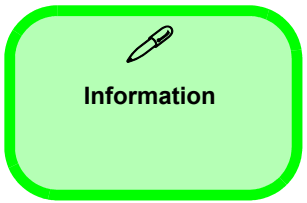
We suggest you completely review any procedure before you take the computer apart.

Procedures such as upgrading/replacing the RAM, CD device and hard disk are included in the User's Manual but are repeated here for your convenience.

To make the disassembly process easier each section may have a box in the page margin. Information contained under the figure # will give a synopsis of the sequence of procedures involved in the disassembly procedure. A box with a lists the relevant parts you will have after the disassembly process is complete. **Note**: The parts listed will be for the disassembly procedure listed ONLY, and not any previous disassembly step(s) required. Refer to the part list for the previous disassembly procedure. The amount of screws you should be left with will be listed here also.

A box with a will provide any possible helpful information. A box with a contains warnings.

An example of these types of boxes are shown in the sidebar.



NOTE: All disassembly procedures assume that the system is turned **OFF**, and disconnected from any power supply (the battery is removed too).

Maintenance Tools

The following tools are recommended when working on the notebook PC:

- M3 Philips-head screwdriver
- M2.5 Philips-head screwdriver (magnetized)
- M2 Philips-head screwdriver
- Small flat-head screwdriver
- Pair of needle-nose pliers
- Anti-static wrist-strap

Connections

Connections within the computer are one of four types:

Locking collar sockets for ribbon connectors	To release these connectors, use a small flat-head screwdriver to gently pry the locking collar away from its base. When replacing the connection, make sure the connector is oriented in the same way. The pin1 side is usually not indicated.
Pressure sockets for multi-wire connectors	To release this connector type, grasp it at its head and gently rock it from side to side as you pull it out. Do not pull on the wires themselves. When replacing the connection, do not try to force it. The socket only fits one way.
Pressure sockets for ribbon connectors	To release these connectors, use a small pair of needle-nose pliers to gently lift the connector away from its socket. When replacing the connection, make sure the connector is oriented in the same way. The pin1 side is usually not indicated.
Board-to-board or multi-pin sockets	To separate the boards, gently rock them from side to side as you pull them apart. If the connection is very tight, use a small flat-head screwdriver - use just enough force to start.

Maintenance Precautions

The following precautions are a reminder. To avoid personal injury or damage to the computer while performing a removal and/or replacement job, take the following precautions:

1. **Don't drop it**. Perform your repairs and/or upgrades on a stable surface. If the computer falls, the case and other components could be damaged.
2. **Don't overheat it**. Note the proximity of any heating elements. Keep the computer out of direct sunlight.
3. **Avoid interference**. Note the proximity of any high capacity transformers, electric motors, and other strong magnetic fields. These can hinder proper performance and damage components and/or data. You should also monitor the position of magnetized tools (i.e. screwdrivers).
4. **Keep it dry**. This is an electrical appliance. If water or any other liquid gets into it, the computer could be badly damaged.
5. **Be careful with power**. Avoid accidental shocks, discharges or explosions.
   - Before removing or servicing any part from the computer, turn the computer off and detach any power supplies.
   - When you want to unplug the power cord or any cable/wire, be sure to disconnect it by the plug head. Do not pull on the wire.
6. **Peripherals** – Turn off and detach any peripherals.**Beware of static discharge**. ICs, such as the CPU and main support chips, are vulnerable to static electricity. Before handling any part in the computer, discharge any static electricity inside the computer. When handling a printed circuit board, do not use gloves or other materials which allow static electricity buildup. We suggest that you use an anti-static wrist strap instead.
7. **Beware of corrosion**. As you perform your job, avoid touching any connector leads. Even the cleanest hands produce oils which can attract corrosive elements.
8. **Keep your work environment clean**. Tobacco smoke, dust or other air-born particulate matter is often attracted to charged surfaces, reducing performance.
9. **Keep track of the components**. When removing or replacing any part, be careful not to leave small parts, such as screws, loose inside the computer.

Power Safety Warning

Before you undertake any upgrade procedures, make sure that you have turned off the power, and disconnected all peripherals and cables (including telephone lines). It is advisable to also remove your battery in order to prevent accidentally turning the machine on.

Cleaning

Do not apply cleaner directly to the computer, use a soft clean cloth.
Do not use volatile (petroleum distillates) or abrasive cleaners on any part of the computer.

Disassembly Steps

The following table lists the disassembly steps, and on which page to find the related information. **PLEASE PERFORM THE DISASSEMBLY STEPS IN THE ORDER INDICATED.**

To remove the Battery:

1. Remove the battery *page 2 - 7*

To remove the Bay One Device:

1. Remove the battery *page 2 - 7*
2. Remove the Bay One device *page 2 - 8*

To remove the Hard Disk Drive:

1. Remove the battery *page 2 - 7*
2. Remove the Bay One device *page 2 - 8*
3. Remove the hard disk drive assembly *page 2 - 9*

To remove the Bay Two Device:

1. Remove the battery *page 2 - 7*
2. Remove the Bay Two device *page 2 - 10*

To remove the Keyboard:

1. Remove the battery *page 2 - 7*
2. Remove the keyboard *page 2 - 11*

To remove the System Memory:

1. Remove the battery *page 2 - 7*
2. Remove the keyboard *page 2 - 11*
3. Remove the memory *page 2 - 12*

To remove the CPU:

1. Remove the battery *page 2 - 7*
2. Remove the CPU *page 2 - 13*

To remove the Modem:

1. Remove the battery *page 2 - 7*
2. Remove the keyboard *page 2 - 11*
3. Remove the modem *page 2 - 15*

To remove the Wireless LAN Module:

1. Remove the battery *page 2 - 7*
2. Remove the keyboard *page 2 - 11*
3. Remove the Wireless LAN module *page 2 - 15*

To remove the Palm Rest:

1. Remove the Palm Rest *page 2 - 16*

To remove the Bottom Case:

1. Remove the battery *page 2 - 7*
2. Remove the Bay One device *page 2 - 8*
3. Remove the hard disk drive assembly *page 2 - 9*
4. Remove the Bay Two device *page 2 - 10*
5. Remove the keyboard *page 2 - 11*
6. Remove the CPU *page 2 - 13*
7. Remove the Palm Rest *page 2 - 16*
8. Remove the bottom case *page 2 - 17*

To remove the Audio "DJ" Module:

1. Remove the battery page 2 - 7
2. Remove the Bay One device page 2 - 8
3. Remove the hard disk drive assembly page 2 - 9
4. Remove the Bay Two device page 2 - 10
5. Remove the keyboard page 2 - 11
6. Remove the CPU page 2 - 13
7. Remove the Palm Rest page 2 - 16
8. Remove the bottom case page 2 - 17
9. Remove the Audio "DJ" module page 2 - 19

To remove the HDD Converter Board:

1. Remove the battery page 2 - 7
2. Remove the Bay One device page 2 - 8
3. Remove the hard disk drive assembly page 2 - 9
4. Remove the Bay Two device page 2 - 10
5. Remove the keyboard page 2 - 11
6. Remove the CPU page 2 - 13
7. Remove the Palm Rest page 2 - 16
8. Remove the bottom case page 2 - 17
9. Remove the Audio "DJ" module page 2 - 19
10. Remove the HDD converter board page 2 - 20

To remove the Mainboard:

1. Remove the battery page 2 - 7
2. Remove the Bay One device page 2 - 8
3. Remove the hard disk drive assembly page 2 - 9
4. Remove the Bay Two device page 2 - 10
5. Remove the keyboard page 2 - 11
6. Remove the CPU page 2 - 13
7. Remove the Palm Rest page 2 - 16
8. Remove the bottom case page 2 - 17
9. Remove the Audio "DJ" module page 2 - 19
10. Remove the HDD converter board page 2 - 20
11. Remove the mainboard page 2 - 21

To remove the DC/DC Board:

1. Remove the battery page 2 - 7
2. Remove the Bay One device page 2 - 8
3. Remove the hard disk drive assembly page 2 - 9
4. Remove the Bay Two device page 2 - 10
5. Remove the keyboard page 2 - 11
6. Remove the CPU page 2 - 13
7. Remove the Palm Rest page 2 - 16
8. Remove the bottom case page 2 - 17
9. Remove the Audio "DJ" module page 2 - 19
10. Remove the HDD converter board page 2 - 20
11. Remove the mainboard page 2 - 21
12. Remove the DC/DC board page 2 - 23

To remove the Click Board:

1. Remove the battery page 2 - 7
2. Remove the Bay One device page 2 - 8
3. Remove the hard disk drive assembly page 2 - 9
4. Remove the Bay Two device page 2 - 10
5. Remove the keyboard page 2 - 11
6. Remove the CPU page 2 - 13
7. Remove the Palm Rest page 2 - 16
8. Remove the bottom case page 2 - 17
9. Remove the Click Board page 2 - 24

To remove the TouchPad:

1. Remove the battery page 2 - 7
2. Remove the Bay One device page 2 - 8
3. Remove the hard disk drive assembly page 2 - 9
4. Remove the Bay Two device page 2 - 10
5. Remove the keyboard page 2 - 11
6. Remove the CPU page 2 - 13
7. Remove the Palm Rest page 2 - 16
8. Remove the bottom case page 2 - 17
9. Remove the TouchPad page 2 - 24

To remove the LED Board:

1. Remove the battery page 2 - 7
2. Remove the Bay One device page 2 - 8
3. Remove the hard disk drive assembly page 2 - 9
4. Remove the Bay Two device page 2 - 10
5. Remove the keyboard page 2 - 11
6. Remove the CPU page 2 - 13
7. Remove the Palm Rest page 2 - 16
8. Remove the bottom case page 2 - 17
9. Remove the LED board page 2 - 25

To remove the Speakers:

1. Remove the battery page 2 - 7
2. Remove the Bay One device page 2 - 8
3. Remove the hard disk drive assembly page 2 - 9
4. Remove the Bay Two device page 2 - 10
5. Remove the keyboard page 2 - 11
6. Remove the CPU page 2 - 13
7. Remove the Palm Rest page 2 - 16
8. Remove the bottom case page 2 - 17
9. Remove the speakers page 2 - 25

To remove the Inverter:

1. Remove the battery page 2 - 7
2. Remove the Bay One device page 2 - 8
3. Remove the hard disk drive assembly page 2 - 9
4. Remove the Bay Two device page 2 - 10
5. Remove the keyboard page 2 - 11
6. Remove the CPU page 2 - 13
7. Remove the Palm Rest page 2 - 16
8. Remove the bottom case page 2 - 17
9. Remove the inverter page 2 - 26

To remove the LCD panel:

1. Remove the battery page 2 - 7
2. Remove the Bay One device page 2 - 8
3. Remove the hard disk drive assembly page 2 - 9
4. Remove the Bay Two device page 2 - 10
5. Remove the keyboard page 2 - 11
6. Remove the CPU page 2 - 13
7. Remove the Palm Rest page 2 - 16
8. Remove the bottom case page 2 - 17
9. Remove the LCD Panel page 2 - 27

Removing the Battery

1. With the computer shut down and on a level surface, raise the LCD cover.
2. Turn the computer over and locate the battery release latch 1 (*Figure 2 - 1a*).
3. Slide the battery release latch towards the unlock symbol.
4. The battery 2 will pop-up and can be lifted out of the computer.

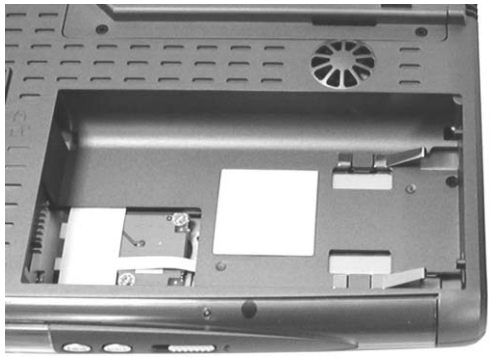
Figure 2 - 1
Battery Removal Sequence

a. Slide the battery release latch to the unlock position.
b. The battery will pop-up.
c. Remove the battery.

a.

b.

c.



2. Battery

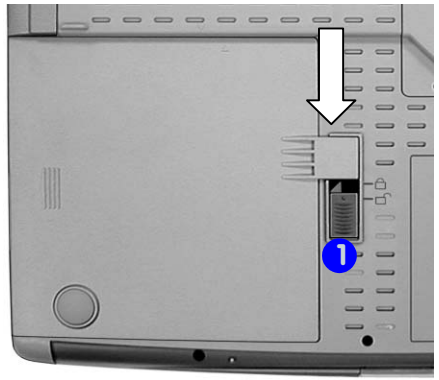
Figure 2 - 2
Bay One Device Removal Sequence

a. Slide the release latch to the unlock position and hold it in position.
b. Partially slide the device out partially.
c. Lift the device up and out of the computer.

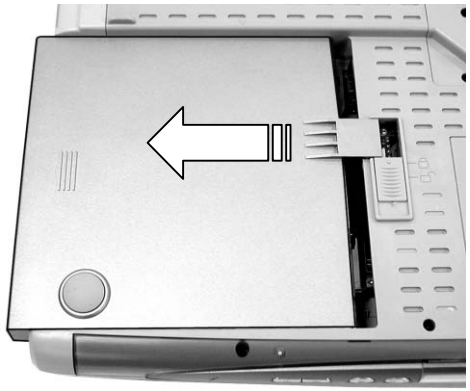
Removing the Bay One Device

1. Turn the computer **OFF**.
2. Place the computer on a clean, stable surface and turn it over.
3. Locate the release latch ❶ (*Figure 2 - 2a*) for the Bay One device.
4. Slide the release latch towards the unlock symbol and hold it in position.
5. With the release latch held in position, slide the device out slightly, then lift it up out of the computer.

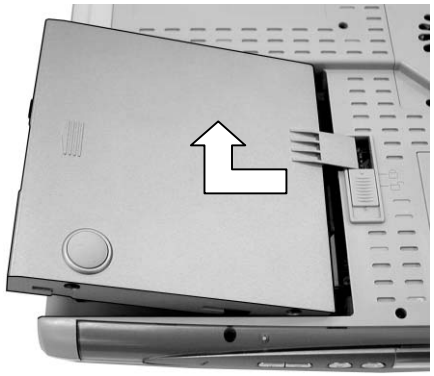
a.

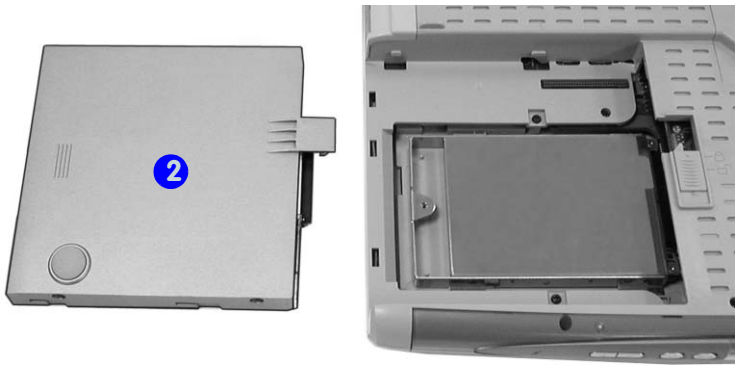


b.



c.





2. Bay One Device

Removing the Hard Disk Drive Assembly

1. Turn the computer **OFF** and turn it over.
2. Remove the device in Bay One (see *"Removing the Bay One Device" on page 2 - 8*).
3. Remove screw 1 (*Figure 2 - 3a*).
4. Slide the HDD assembly forward, then lift it up out of the computer.
5. Remove screws 2 - 5 (*Figure 2 - 3e*) from the assembly, and slide the hard disk 7 out of the case 6.

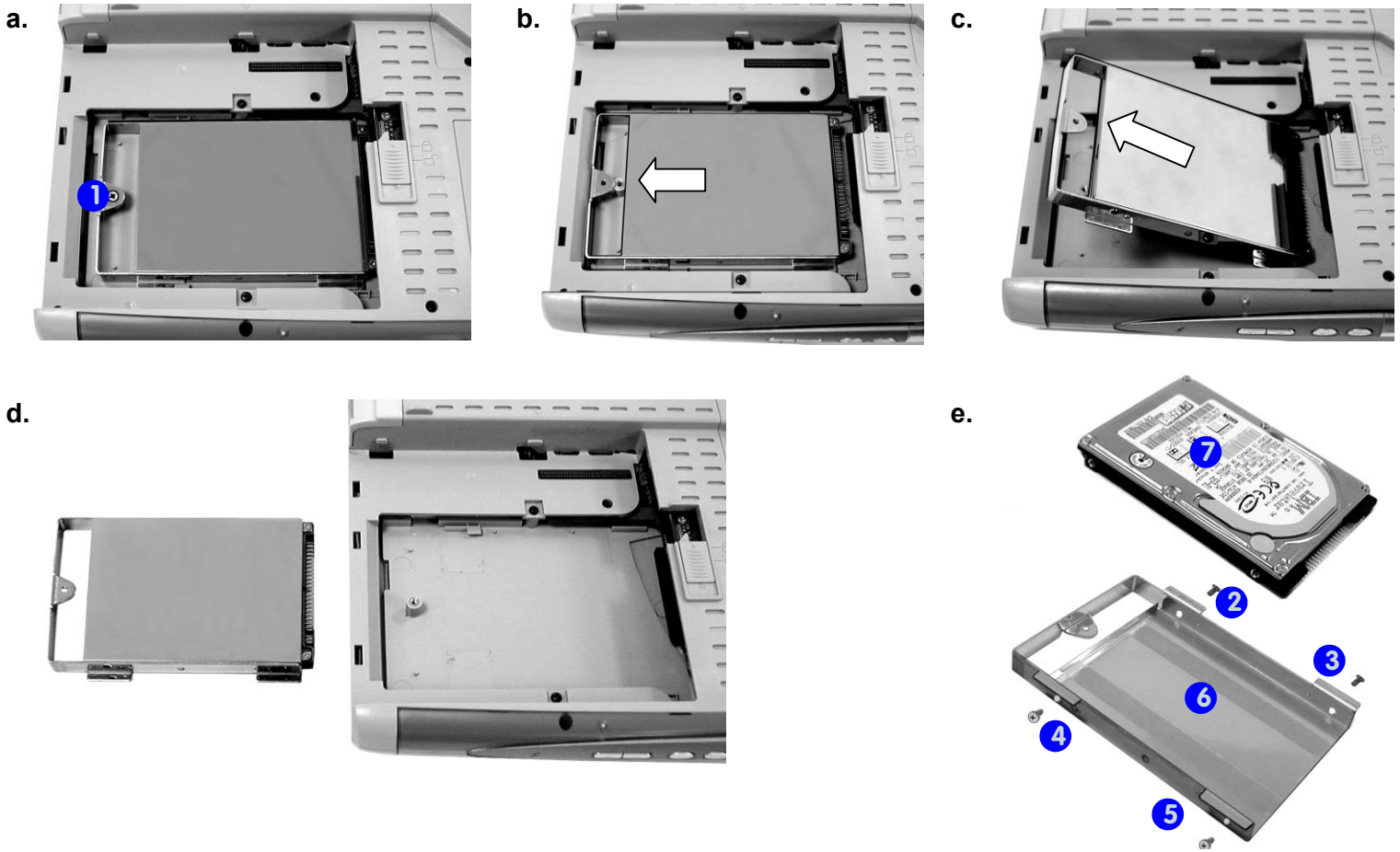


Figure 2 - 3
Hard Disk Removal Sequence

a. Remove the HDD assembly screw.
b. Slide the HDD assembly in the direction of the arrow.
c. Lift the HDD assembly up.
d. Lift the HDD assembly out of the computer.
e. Remove the screws and separate the HDD from the case.

6. HDD case
7. HDD

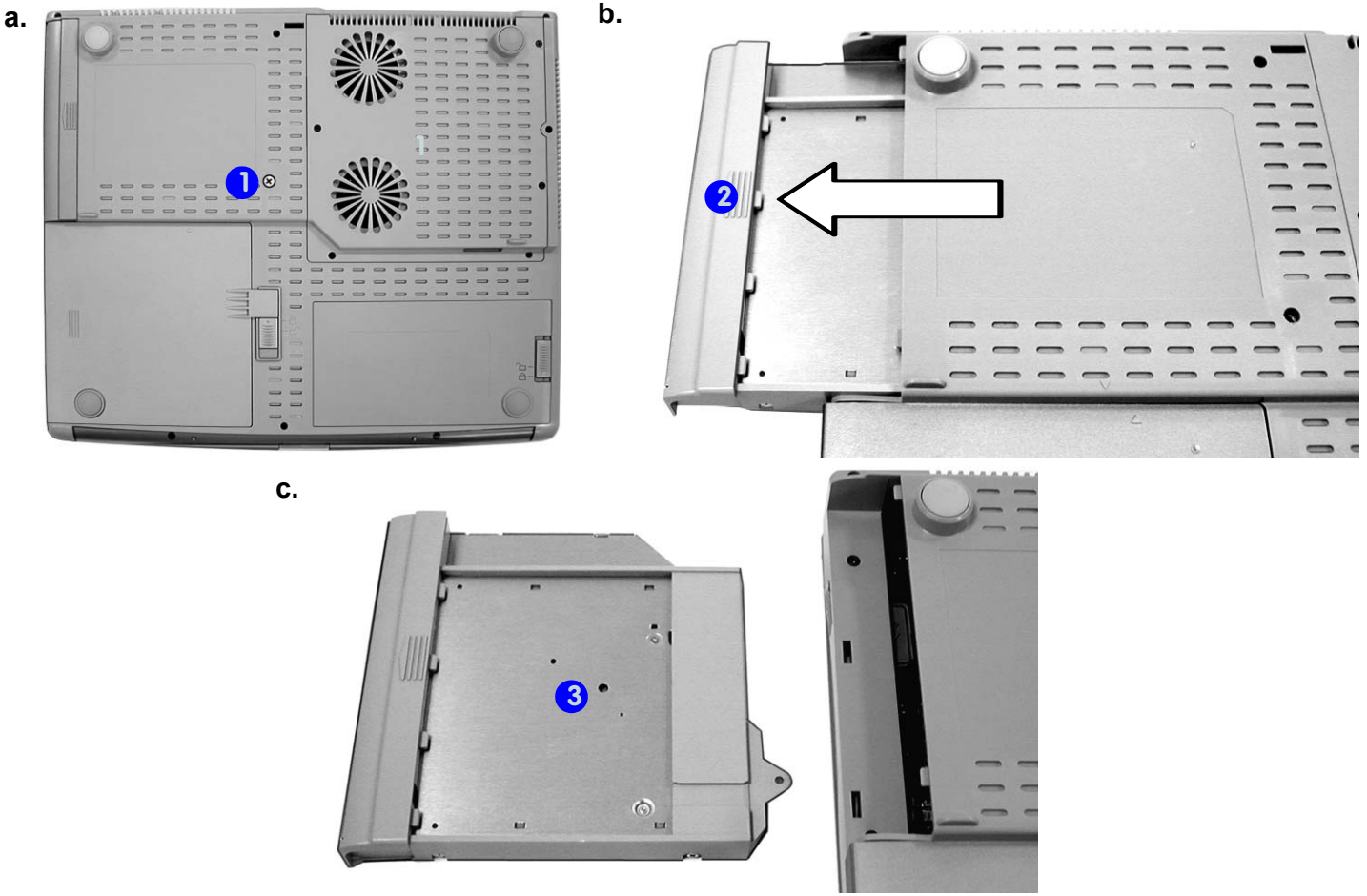
- 5 Screws

Removing the Bay Two Device

1. Turn **OFF** the computer.
2. Turn the computer over.
3. Remove screw 1 (*Figure 2 - 4a*)
4. Apply gentle but firm pressure at point 2 (*Figure 2 - 4b*), and slide the device out of the computer.

Figure 2 - 4
Bay Two Device Removal Sequence

a. Remove the screw from point 1.
b. Apply pressure to point 2 to slide the device out of the bay.



3. Bay Two device

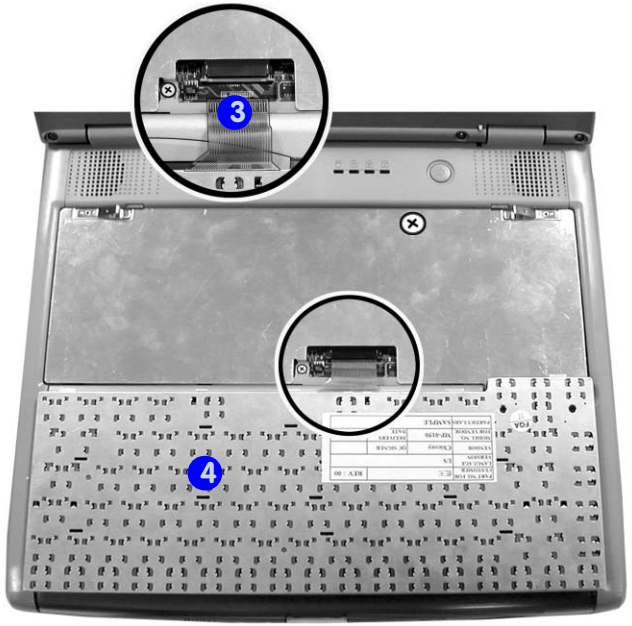
- 1 Screw

Removing the Keyboard

1. Turn **OFF** the computer.
2. Press the two keyboard latches at the top of the keyboard to elevate the keyboard from its normal position as in *Figure 2 - 5a* (you may need to use a small screwdriver to do this).
3. Carefully lift the keyboard up and out, being careful not to bend the keyboard ribbon cable 3 (*Figure 2 - 5b*).
4. Disconnect the keyboard ribbon cable from the locking collar socket 3 (*Figure 2 - 5b*).

a.

b.



c.

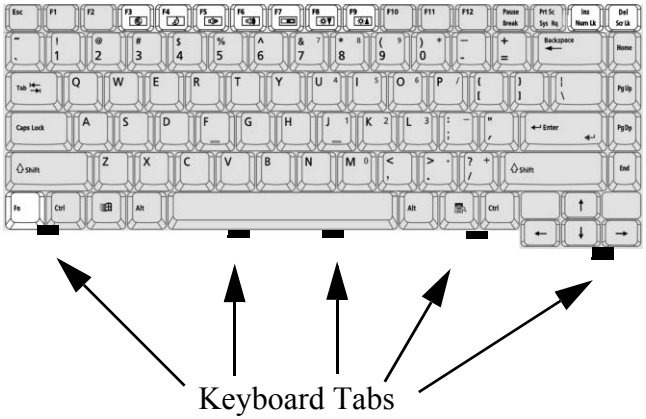


Figure 2 - 5
Keyboard Removal Sequence

a. Press the two latches to release the keyboard.
b. Lift the keyboard out and disconnect the cable from the locking collar.

Re-Inserting the Keyboard

When re-inserting the keyboard firstly align the **five** keyboard tabs (*Figure 2 - 5***c**) at the bottom of the keyboard with the slots in the case.

3. Ribbon cable
4. Keyboard

Figure 2 - 6
Memory Removal Sequence

a. Remove the screws from the shielding plate.
b. Remove the shielding plate.
c. Pull the latch(es) on the memory sockets to release the module(s).
d. When the module pops up, lift it out.

1.Shielding plate
8. Memory module(s)

- 2 Screws

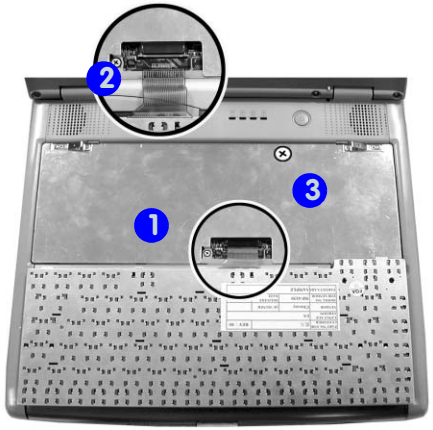
Contact Warning

Be careful not to touch the metal pins on the module's connecting edge. Even the cleanest hands have oils which can attract particles, and degrade the module's performance.

Removing the System Memory

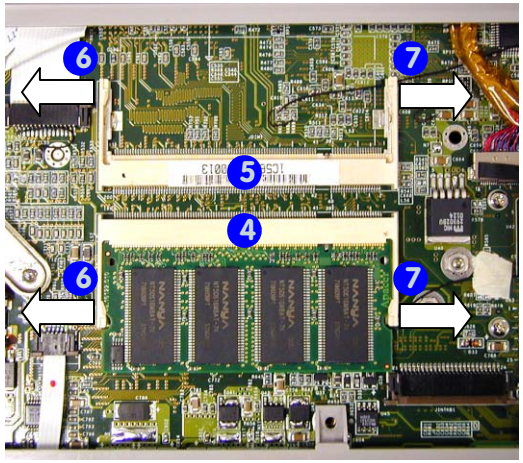
1. Remove the keyboard (**see** ***page 2 - 11***).
2. Remove screws 2 and 3 (***Figure 2 - 6a***) from the shielding plate, and lift the plate up 1 off the computer.
3. Locate the memory sockets 4 and 5 (***Figure 2 - 6c***), and gently pull latches 6 and 7 (***Figure 2 - 6c***) on the memory socket toward the sides of the computer as indicated in ***Figure 2 - 6c***.
4. The module 8 (***Figure 2 - 6d***) will pop-up, and you can remove it.
5. Insert a new module holding it at about a 30° angle and fit the connectors firmly into the memory slot.

a.

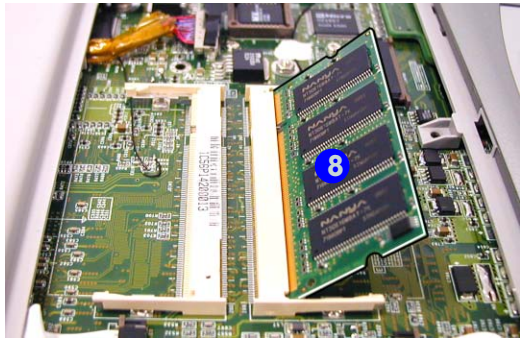


b.

c.



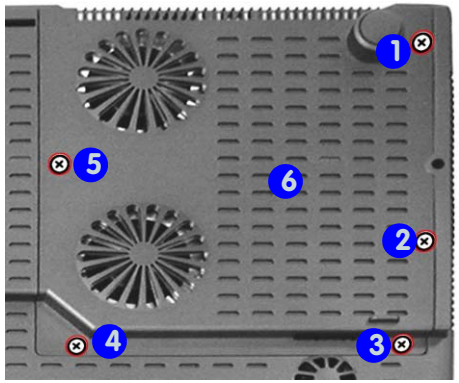
d.



Removing the CPU

1. Turn **OFF** the computer and turn it over.
2. Remove the screws 1 - 5 (*Figure 2 - 7a*) from the CPU cover, and remove the CPU cover 6.

a.



b.

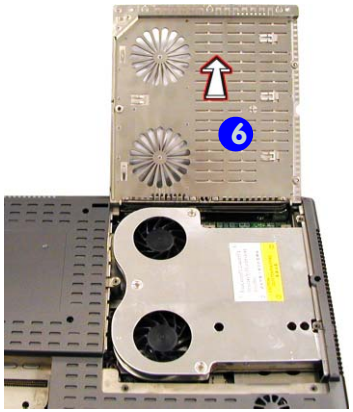


Figure 2 - 7
Processor Removal Sequence

a. Remove the five screws and the CPU cover.
b. Remove the CPU cover.

3. Remove the five screws from the heat sink in order 1 - 5 as indicated (*Figure 2 - 8*).

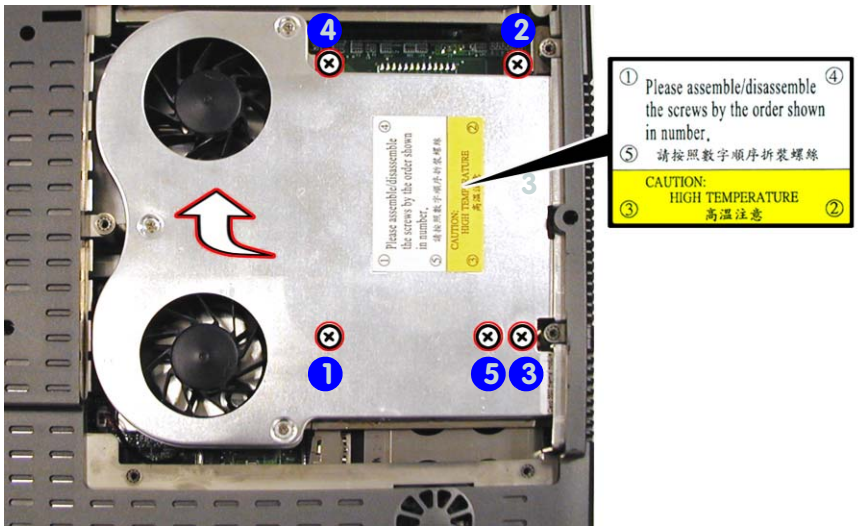


Figure 2 - 8
Processor Removal Sequence (cont'd)

Remove the five screws from the heat sink in **the order indicated**.

Caution

The heat sink, and CPU area in general, contains parts which are subject to high temperatures - Please allow the area time to cool before removing these parts).

Reassembly Screw Order

When inserting a new or replacement CPU, make sure you insert the screws in the same order indicated in *Figure 2 - 8*.

6. CPU cover

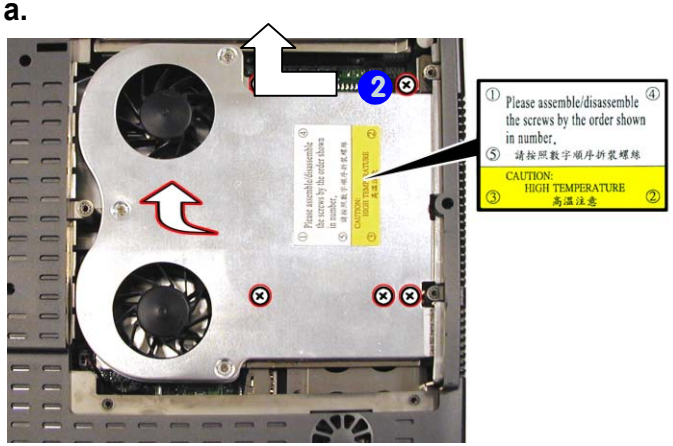
- 10 Screws

Figure 2 - 9
Processor Removal Sequence (cont'd)

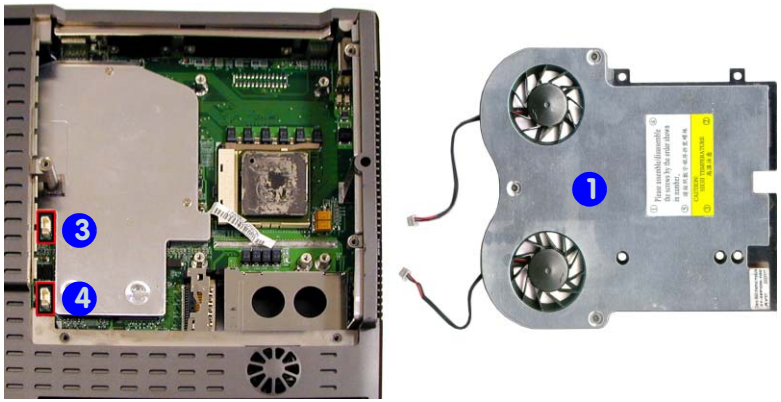
a. Slide the heat sink forward slightly, and prise the unit upwards.
b. Release the fan cables.
c. Unlock the cpu and remove it.

4. Use a screwdriver to apply pressure at point 2 (***Figure 2 - 9a***) in order to carefully slide the heat sink 1 forward slightly, and prise the unit upwards.
5. Release the fan cables from points 3 - 4 (***Figure 2 - 9b***), and remove the heat sink.
6. Unlock the processor by raising lever 5 (***Figure 2 - 9c***) to the fully vertical position, and carefully lift the processor 6 off the socket.

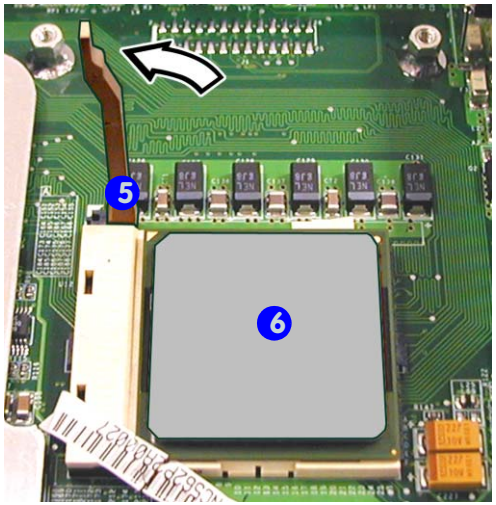
a.



b.



c.



1. Heat sink
6. CPU

Removing the Modem

1. Remove the keyboard (*see page 2 - 11*).
2. Remove screws 1 - 2 and carefully lift the modem 3 up off the mainboard (*Figure 2 - 10*).
3. Disconnect the modem cable 4 from the modem module.

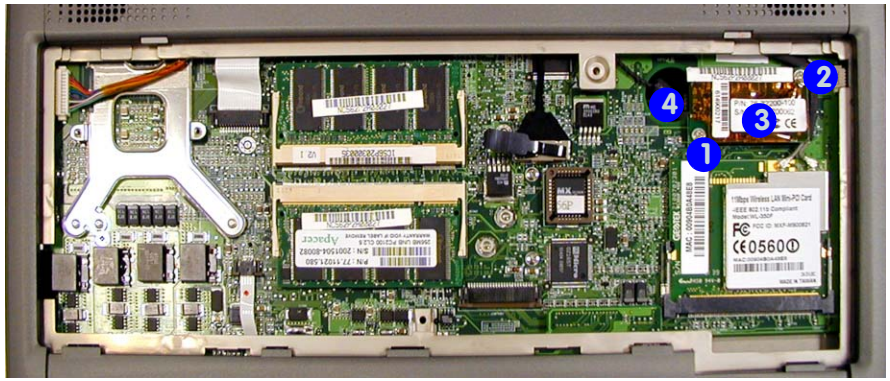


Figure 2 - 10
Modem Removal Sequence

Remove the screws, lift the modem off the mainboard, and disconnect the cable.

3. Modem
- 2 Screws

Removing the Wireless LAN Module

1. Remove the keyboard (*see page 2 - 11*).
2. Gently pull latches 1 & 2 in the direction of the arrows (*Figure 2 - 11*) and the module will pop-up.
3. Carefully remove the wireless LAN module 5, and disconnect the cables at points 3 & 4.

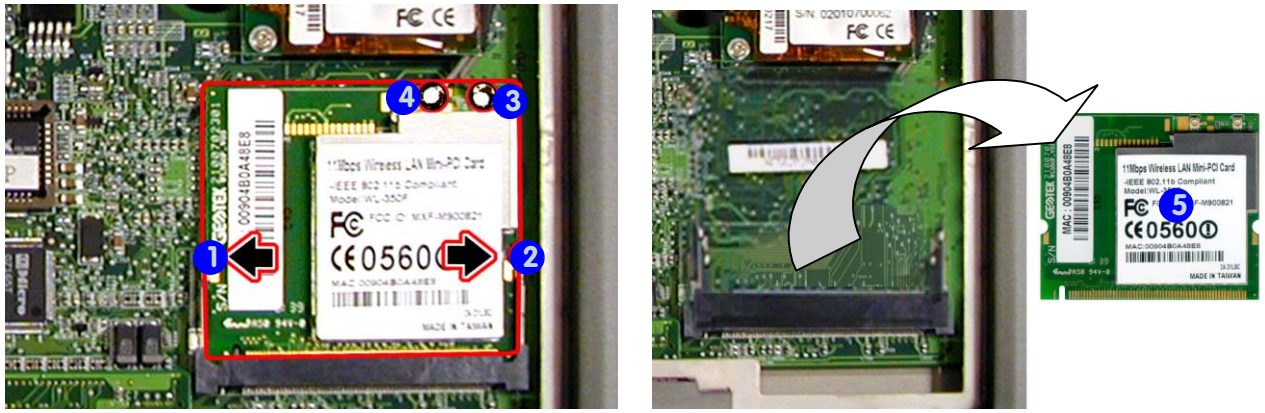


Figure 2 - 11
Wireless LAN Module Removal Sequence

Pull the latches, lift the module off the mainboard, and disconnect the cables.

5. Wireless LAN module

Removing the Palm Rest

1. With the computer shut down and on a level surface, raise the LCD cover.
2. Remove the palm rest by applying gentle upward pressure with your fingers close to the area around the **left Alt** key, and the **right Ctrl** key (*Figure 2 - 12*).
3. To replace the palm rest 1, slide it back in to place, and then apply slight downward pressure to points 2 and 3 in order to snap it gently back down.

Figure 2 - 12
Palm Rest Removal Sequence

Apply gentle upward pressure with your fingers close to the area indicated, and lift the palm rest up.

1. Palm Rest

Removing the Bottom Case

1. Remove the battery (*page 2 - 7*), bay one device (*page 2 - 8*), hard disk assembly (*page 2 - 9*), bay two device (*page 2 - 10*), keyboard (*page 2 - 11*) CPU (*page 2 - 13*) and palm rest (*page 2 - 16*).
2. Turn the computer over and remove screws 1 - 15 (*Figure 2 - 13*).

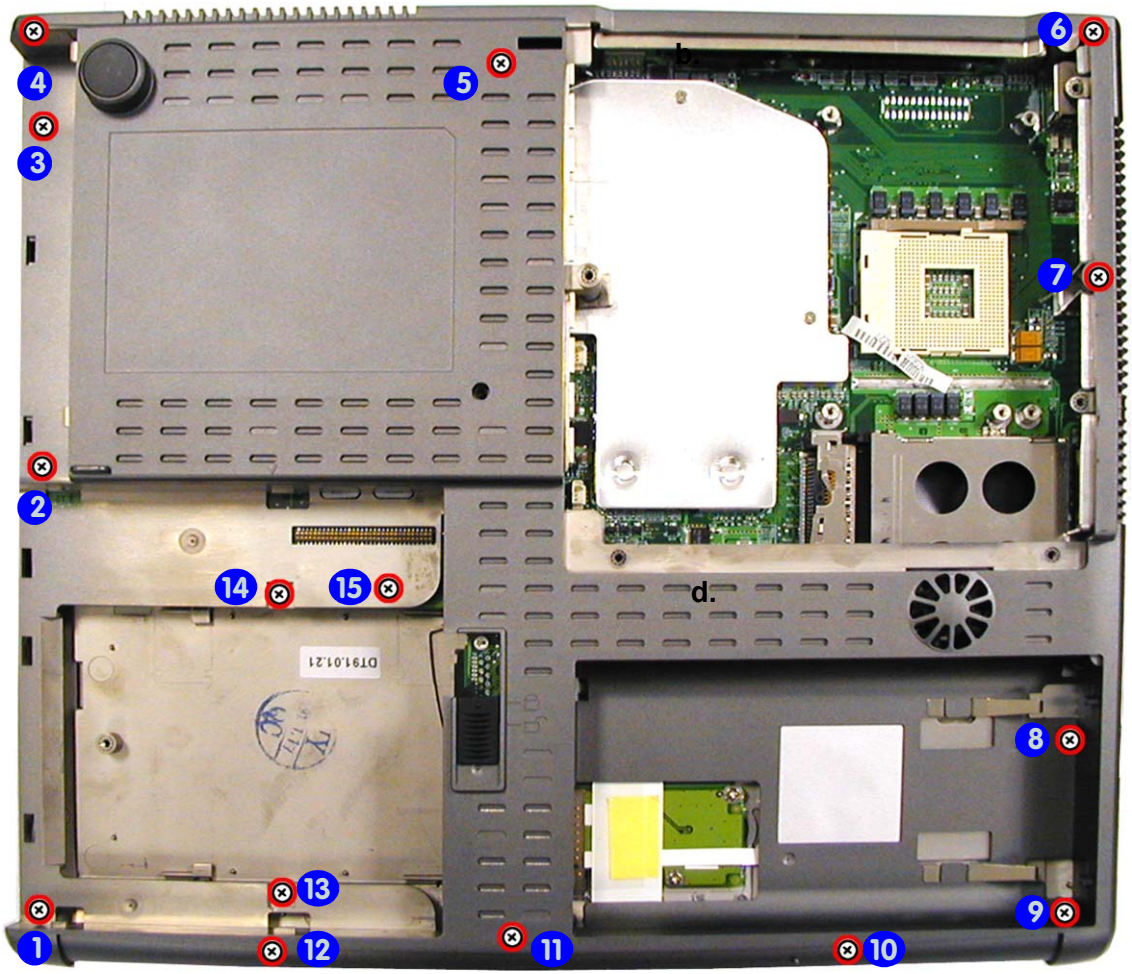


Figure 2 - 13
Bottom Case Removal Sequence

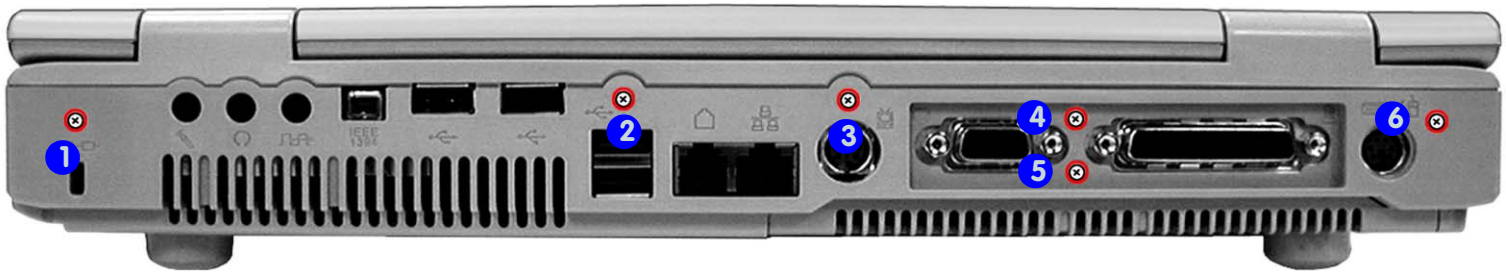
Remove the 15 screws from the bottom of the case.

- 15 Screws

Figure 2 - 14
Bottom Case Removal Sequence (cont'd)

Remove the six screws from the rear of the computer.

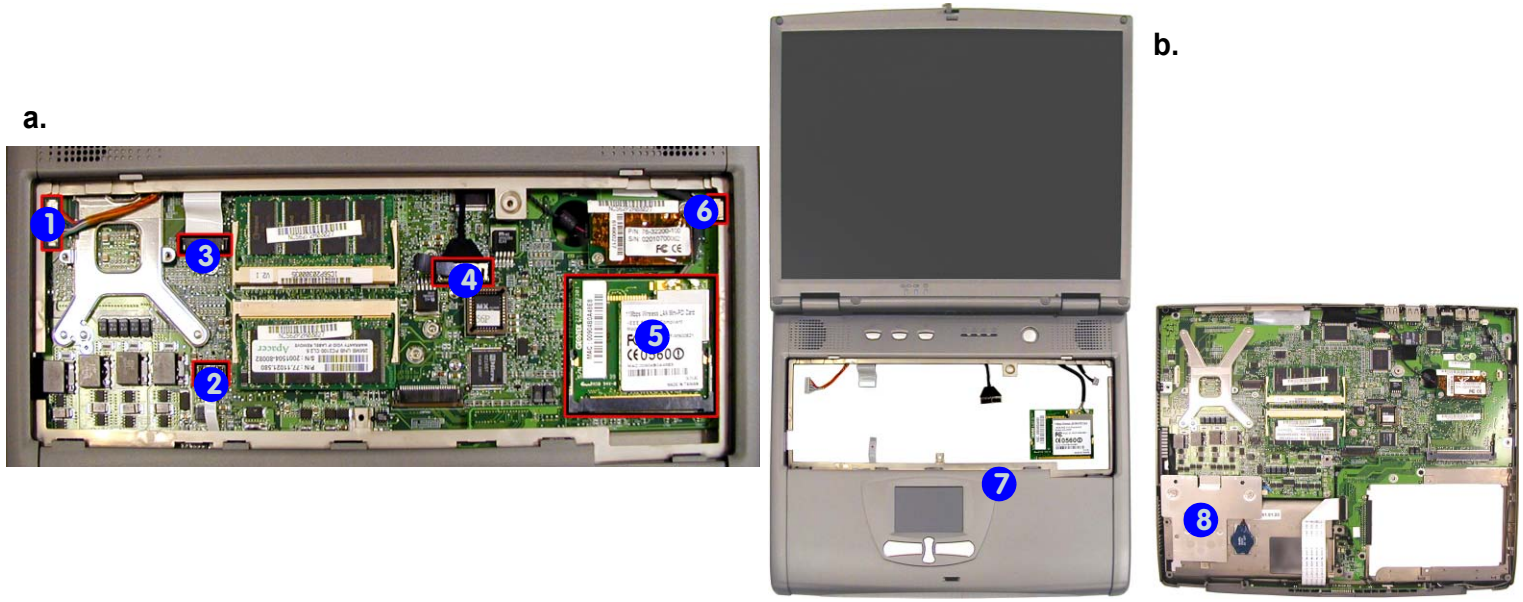
3. Turn the computer around and remove screws 1 - 6 (***Figure 2 - 14***) from the rear of the computer.



4. Disconnect the inverter cable 1, touchpad cable 2, LED cable 3, LCD cable 4, Wireless LAN module 5 (if included) speaker cable 6 (***Figure 2 - 15***).
5. Carefully lift the LCD and top case assembly 7 off the bottom case assembly 8.

Figure 2 - 15
Bottom Case Removal Sequence (cont'd)

a. Remove the cables connected to the mainboard.
b. Lift the LCD and top case off the bottom case.



7. LCD & Top Case
8. Bottom Case

- 6 Screws

Removing the Audio "DJ" Module

1. Remove the battery (*page 2 - 7*), bay one device (*page 2 - 8*), hard disk assembly (*page 2 - 9*), bay two device (*page 2 - 10*), keyboard (*page 2 - 11*) CPU (*page 2 - 13*), palm rest (*page 2 - 16*) and bottom case (*page 2 - 17*).
2. When the top and bottom case assemblies are separated the Audio "DJ" module will be visible.
3. Disconnect the microphone cable 1, the Audio "DJ" cable 2, then carefully remove the Audio "DJ" module 3 (*Figure 2 - 16b*).
4. Remove screws 4 - 7 from the back of the Audio "DJ" board in order to separate the board 8 from the module 3 and power button 9 (*Figure 2 - 16c*).

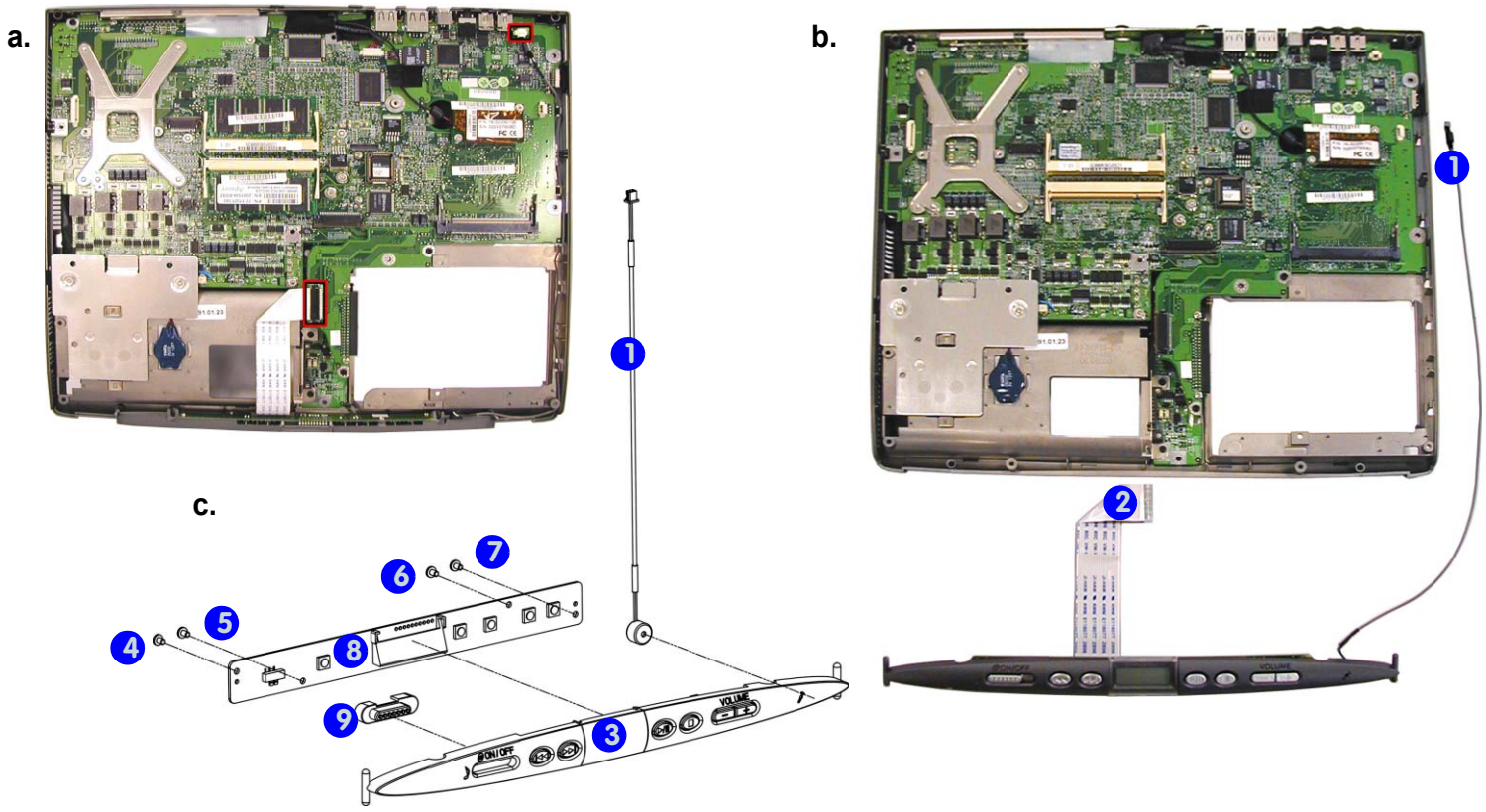


Figure 2 - 16
Audio "DJ" Module Removal Sequence

a. Disconnect the microphone and Audio "DJ" cables.
b. Remove the module.
c. Remove the 4 screws to separate the board, module and power button.

1. Microphone Cable
2. Audio "DJ" Cable
3. Audio "DJ" Module
8. Audio "DJ" Board
9. Power Button

- 4 Screws

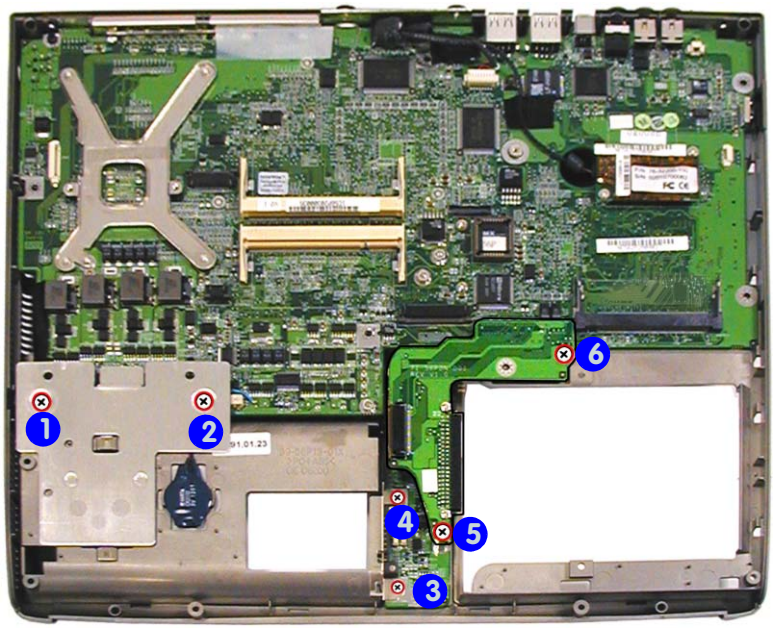
Removing the HDD Converter Board

1. Remove the battery (*page 2 - 7*), bay one device (*page 2 - 8*), hard disk assembly (*page 2 - 9*), bay two device (*page 2 - 10*), keyboard (*page 2 - 11*) CPU (*page 2 - 13*), palm rest (*page 2 - 16*) bottom case (*page 2 - 17*) and Audio "DJ" module (*page 2 - 19*).
2. Remove screws 1 - 6 from the PCMCIA shielding plate and HDD converter board (*Figure 2 - 17*).
3. Carefully lift the PCMCIA shielding plate 7, cover 8 and HDD converter board 9 away from the mainboard (be careful not to bend the pins in the HDD converter board when removing and inserting it).

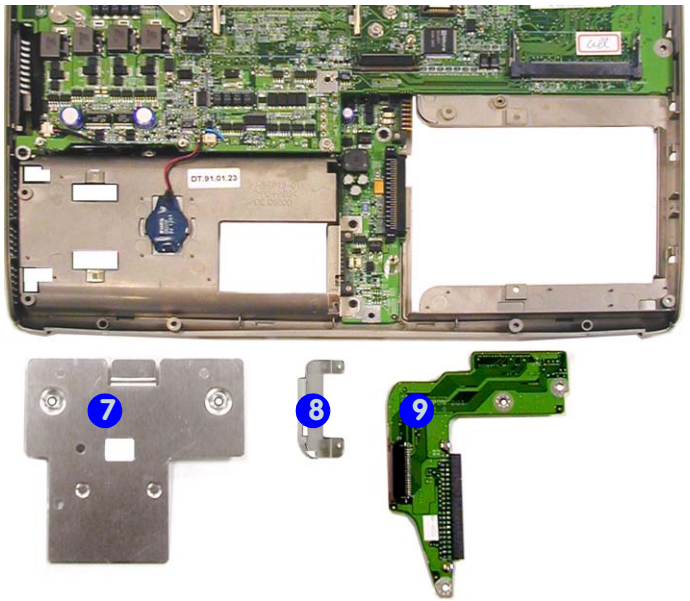
Figure 2 - 17
HDD Converter Board Removal Sequence

a. Remove screws 1 - 6.
b. Remove the shielding plate, cover and HDD converter board.

a.



b.



7. PCMCIA Shielding Plate
8. Cover
9. HDD converter board

- 6 Screws

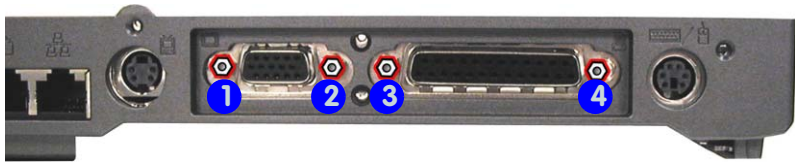
Removing the Mainboard

1. Remove the battery (*page 2 - 7*), bay one device (*page 2 - 8*), hard disk assembly (*page 2 - 9*), bay two device (*page 2 - 10*), keyboard (*page 2 - 11*) CPU (*page 2 - 13*), palm rest (*page 2 - 16*) bottom case (*page 2 - 17*), Audio "DJ" module (*page 2 - 19*) and HDD converter board (*page 2 - 20*).
2. Remove screws 1 - 4 from the rear of the computer (*Figure 2 - 18a*).
3. Remove screws 5 - 13 (screws 12 & 13 hold the modem in place and will only need removed if you haven't already removed the modem module) from the mainboard (*Figure 2 - 18b*).
4. Disconnect the battery cable 14, fan cable 15 and LAN cable 16 (*Figure 2 - 18b*).

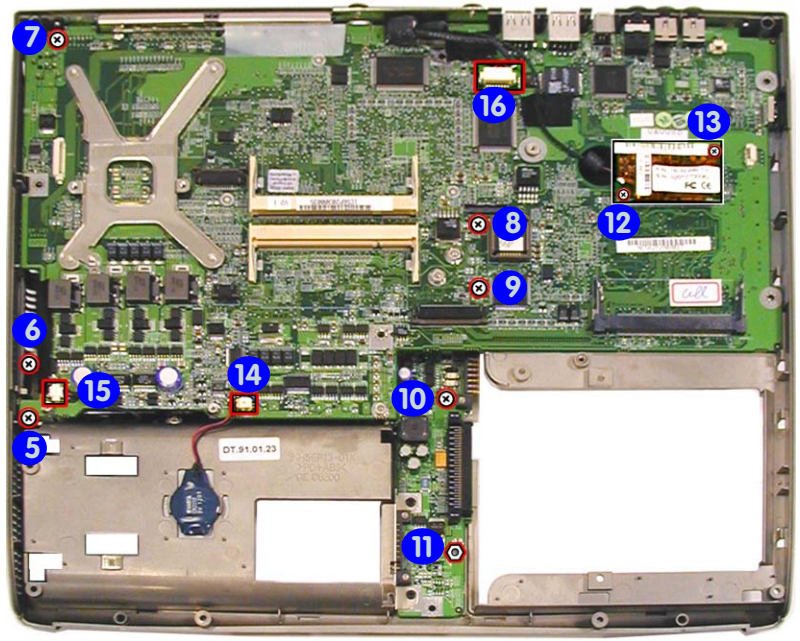
Figure 2 - 18
Mainboard Removal Sequence

a. Remove screws 1 - 4.
b. Remove screws 5 - 13, and disconnect cables 14 - 16.

a.



b.



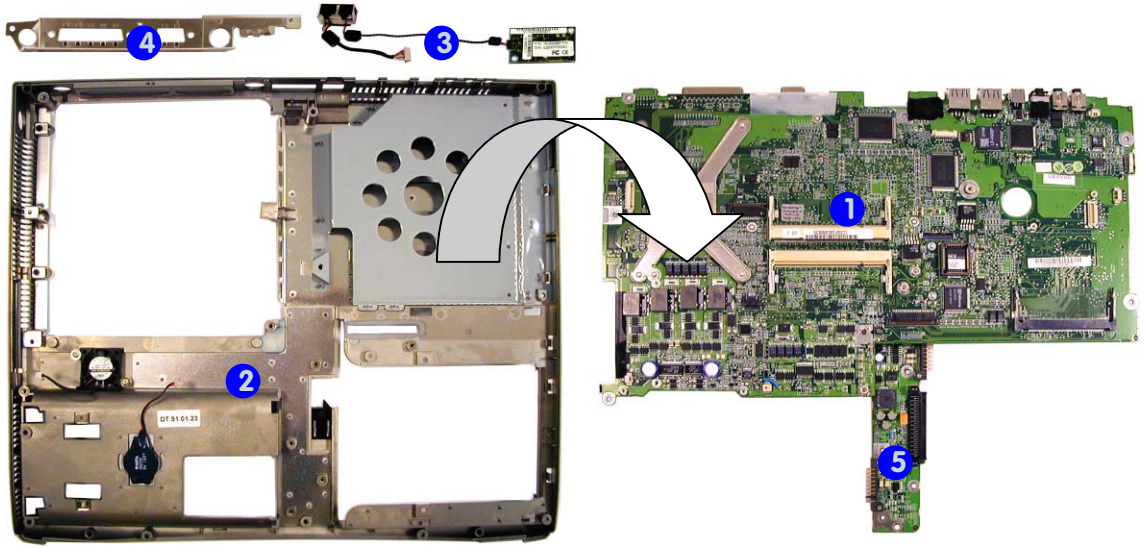
- 13 Screws

Figure 2 - 19
Mainboard Removal Sequence (cont'd)

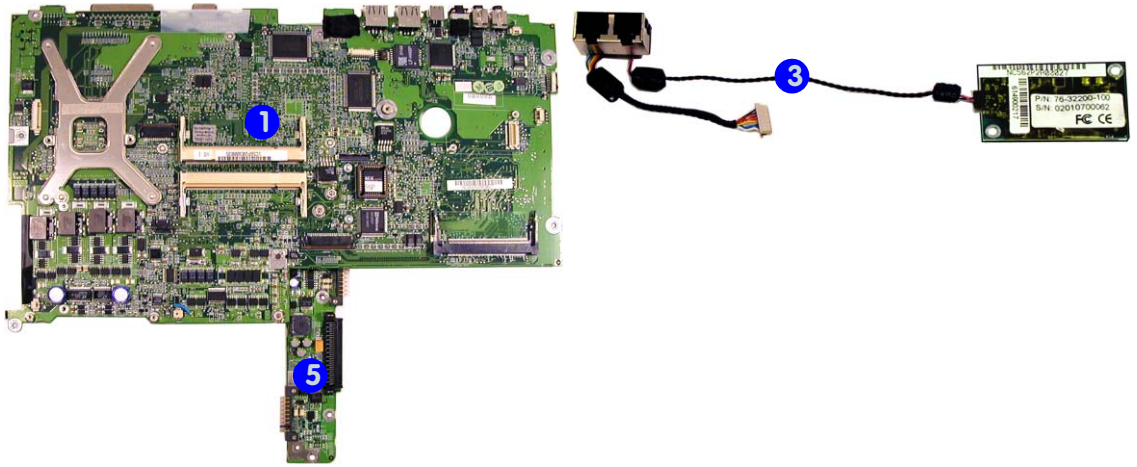
a. Lift the mainboard assembly out of the bottom case.
b. Sperate the LAN and modem ports/cables.

5. Lift the mainboard 1 and DC/DC board 5 out of the bottom case 2 (***Figure 2 - 19a***).
6. If required, separate the LAN and modem ports and cables 3 from the bottom case.

a.



b.

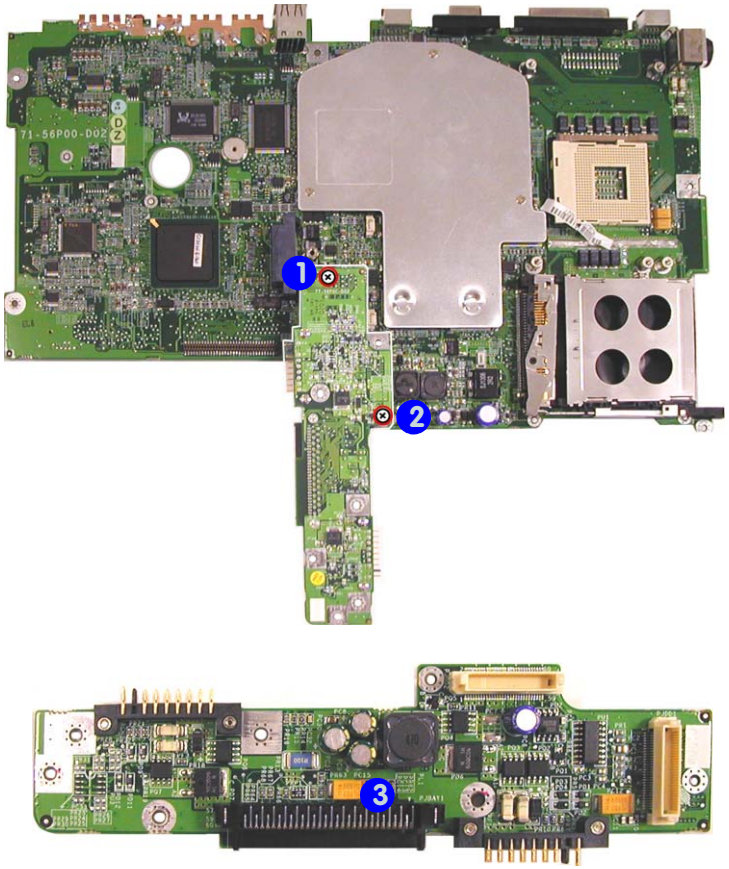


1. Mainboard
2. Bottom case
3. LAN & modem ports/cables and modem
4. Bracket
5. DC/DC board

Removing the DC/DC Board

1. Remove the battery (*page 2 - 7*), bay one device (*page 2 - 8*), hard disk assembly (*page 2 - 9*), bay two device (*page 2 - 10*), keyboard (*page 2 - 11*) CPU (*page 2 - 13*), palm rest (*page 2 - 16*), bottom case (*page 2 - 17*), Audio "DJ" module (*page 2 - 19*), HDD converter board (*page 2 - 20*) and mainboard (*page 2 - 21*).
2. Turn the mainboard over and remove screws 1 - 2 (*Figure 2 - 20a*).
3. Carefully separate the DC/DC board 3 from the mainboard 4 (*Figure 2 - 20b*).

a.



b.

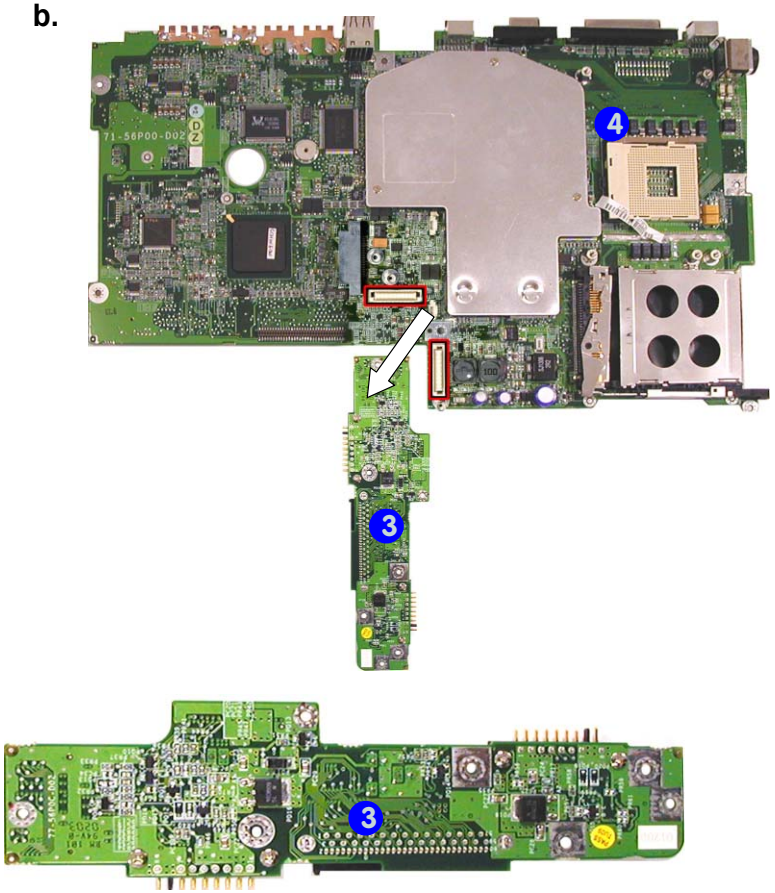


Figure 2 - 20
DC/DC Board Removal Sequence

a. Remove screws 1 - 2.
b. Separate the mainboard from the DC/DC board.

3. DC/DC board
4. Mainboard

Figure 2 - 21
Click Board Removal Sequence

a. Remove the screws and disconnect the cable.
b. Lift the click board off the top case assembly.

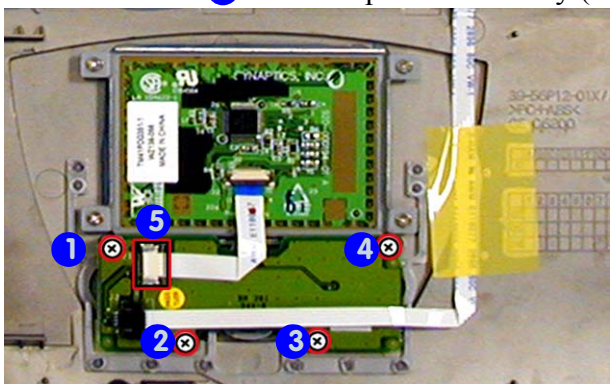
6. Click board

- 4 Screws

Removing the Click Board

1. Remove the battery (*page 2 - 7*), bay one device (*page 2 - 8*), hard disk assembly (*page 2 - 9*), bay two device (*page 2 - 10*), keyboard (*page 2 - 11*) CPU (*page 2 - 13*), palm rest (*page 2 - 16*) and bottom case (*page 2 - 17*).
2. Turn the top case assembly over and remove screws 1 - 4, and disconnect cable 5 (*Figure 2 - 21a*).
3. Lift the click board 6 off the top case assembly (*Figure 2 - 21b*).

a.



b.

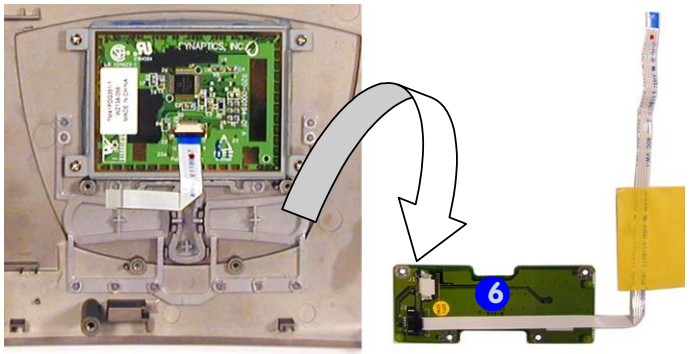


Figure 2 - 22
TouchPad Removal Sequence

a. Remove the screws and disconnect the cable.
b. Lift the TouchPad and bracket off the top case assembly.

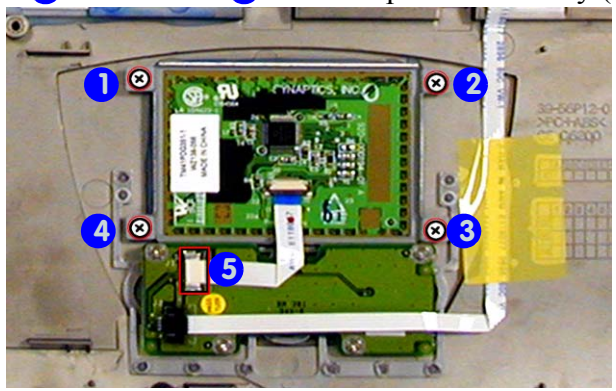
6. TouchPad
7. Bracket

- 4 Screws

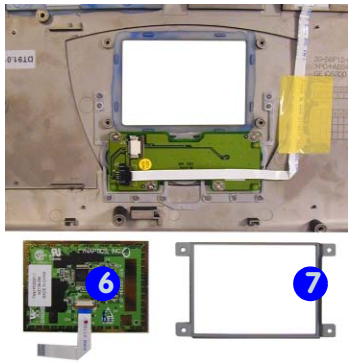
Removing the TouchPad

1. Remove the battery (*page 2 - 7*), bay one device (*page 2 - 8*), hard disk assembly (*page 2 - 9*), bay two device (*page 2 - 10*), keyboard (*page 2 - 11*) CPU (*page 2 - 13*), palm rest (*page 2 - 16*) and bottom case (*page 2 - 17*).
2. Turn the top case assembly over and remove screws 1 - 4, and disconnect cable 5 (*Figure 2 - 22a*).
3. Lift the TouchPad 6 and bracket 7 off the top case assembly (*Figure 2 - 22b*).

a.



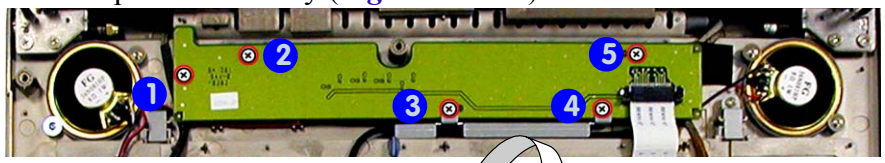
b.



Removing the LED Board

1. Remove the battery (*page 2 - 7*), bay one device (*page 2 - 8*), hard disk assembly (*page 2 - 9*), bay two device (*page 2 - 10*), keyboard (*page 2 - 11*) CPU (*page 2 - 13*), palm rest (*page 2 - 16*) and bottom case (*page 2 - 17*).
2. Turn the top case assembly over and remove screws 1 - 5 from the LED board (*Figure 2 - 23a*).
3. Lift the LED board 6 off the top case assembly (*Figure 2 - 23b*).

a.



b.

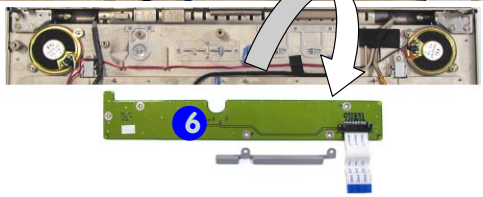


Figure 2 - 23
LED Board Removal Sequence

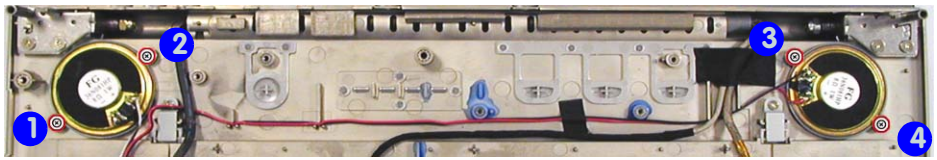
a. Remove the screws.
b. Lift the LED board off the top case assembly.

6. LED board
- 5 Screws

Removing the Speakers

1. Remove the battery (*page 2 - 7*), bay one device (*page 2 - 8*), hard disk assembly (*page 2 - 9*), bay two device (*page 2 - 10*), keyboard (*page 2 - 11*) CPU (*page 2 - 13*), palm rest (*page 2 - 16*), bottom case (*page 2 - 17*) and LED board (above).
2. Remove screws 1 - 4 from the speakers (*Figure 2 - 24a*).
3. Carefully lift the speakers 5 off the top case assembly (*Figure 2 - 24b*).

a.



b.

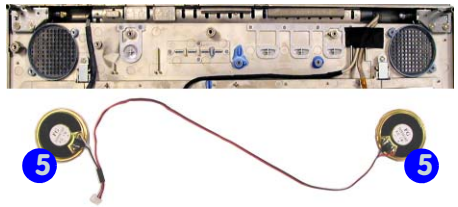


Figure 2 - 24
Speakers Removal Sequence

a. Remove the screws.
b. Lift the speakers off the top case assembly.

5. Speakers
- 4 Screws

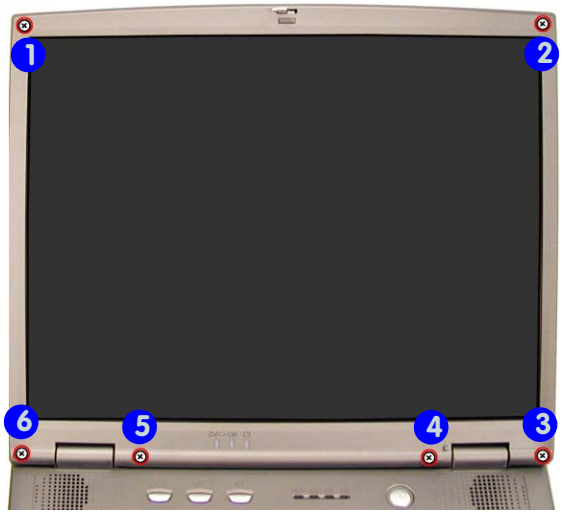
Figure 2 - 25
LCD Removal Sequence

a. Remove the screws.
b. Unsnap the LCD front panel from the back.
c. Remove the screw from the inverter.
d. Disconnect the cables and remove the inverter.

Removing the Inverter

1. Remove the battery (*page 2 - 7*), bay one device (*page 2 - 8*), hard disk assembly (*page 2 - 9*), bay two device (*page 2 - 10*), keyboard (*page 2 - 11*) CPU (*page 2 - 13*), palm rest (*page 2 - 16*) and bottom case (*page 2 - 17*).
2. Remove the rubber covers and screws 1 - 6 from the LCD (*Figure 2 - 25a*).
3. Run your finger around the middle of the frame to carefully unsnap the LCD front panel module 7 from the back (*Figure 2 - 25b*).
4. Remove screw 8 from the inverter, and disconnect cables 9 & 10 from the rear of the inverter (*Figure 2 - 25c*).
5. Lift the inverter 11 off the LCD assembly (*Figure 2 - 25d*).

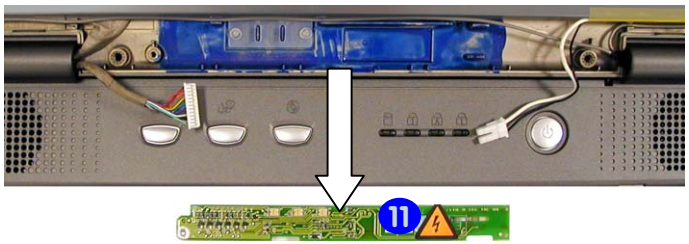
a.



b.

c.

d.



7. LCD Front Panel
11. Inverter

- 7 Screws

Removing the LCD Panel

1. Remove the battery (*page 2 - 7*), bay one device (*page 2 - 8*), hard disk assembly (*page 2 - 9*), bay two device (*page 2 - 10*), keyboard (*page 2 - 11*) CPU (*page 2 - 13*), palm rest (*page 2 - 16*), bottom case (*page 2 - 17*) and inverter (*page 2 - 26*).
2. Remove screws 1 - 8 and lift the LCD panel 9 off the top assembly (*Figure 2 - 26a*).
3. Remove screws 10 - 17 to separate the LCD panel from the brackets 18 (*Figure 2 - 25b*).

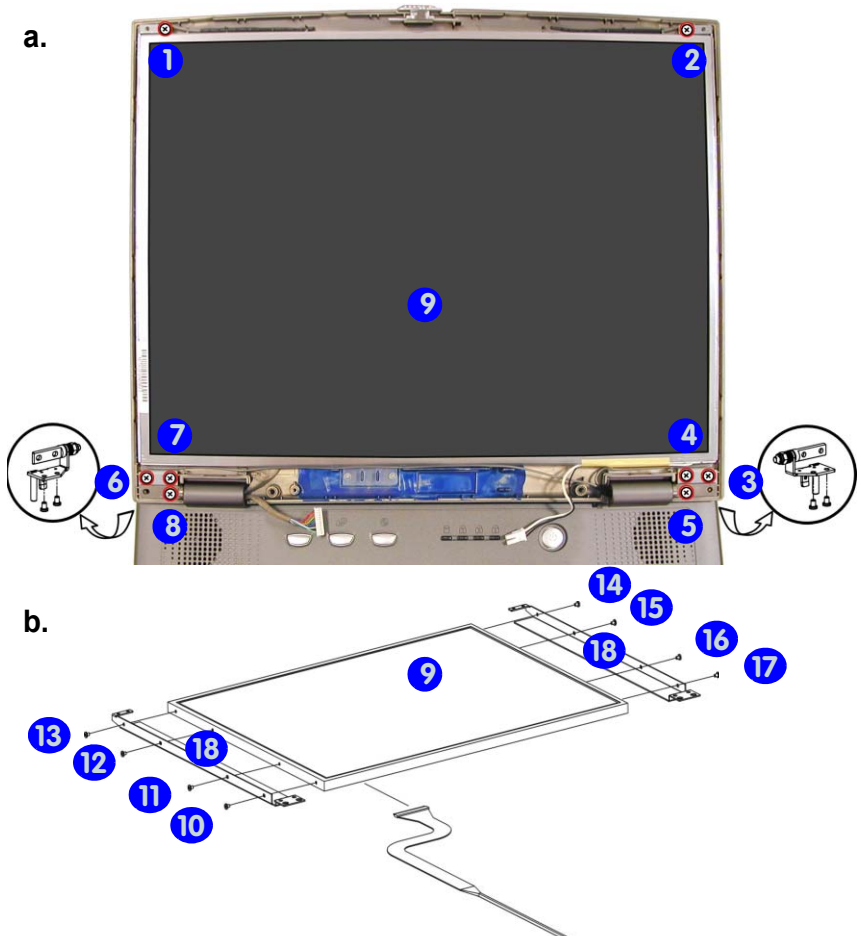


Figure 2 - 26
LCD Removal Sequence

a. Remove the screws.
b. Lift the panel off the assembly and remove the screws to release the brackets.

9. LCD Panel
18. 2 * Brackets

- 16 Screws

Appendix A:Part Lists

This appendix breaks down the notebook PC's construction into a series of illustrations. The component part numbers are indicated in the tables opposite the drawings.

Note: This section indicates the *manufacturer's* part numbers. Your organization may use a different system, so be sure to cross-check any relevant documentation.

Note: Some assemblies may have parts in common (especially screws). However, the part lists DO NOT indicate the total number of duplicated parts used.

Note: Be sure to check any update notices. The parts shown in these illustrations are appropriate for the system at the time of publication. Over the product life, some parts may be improved or re-configured, resulting in *new* part numbers.

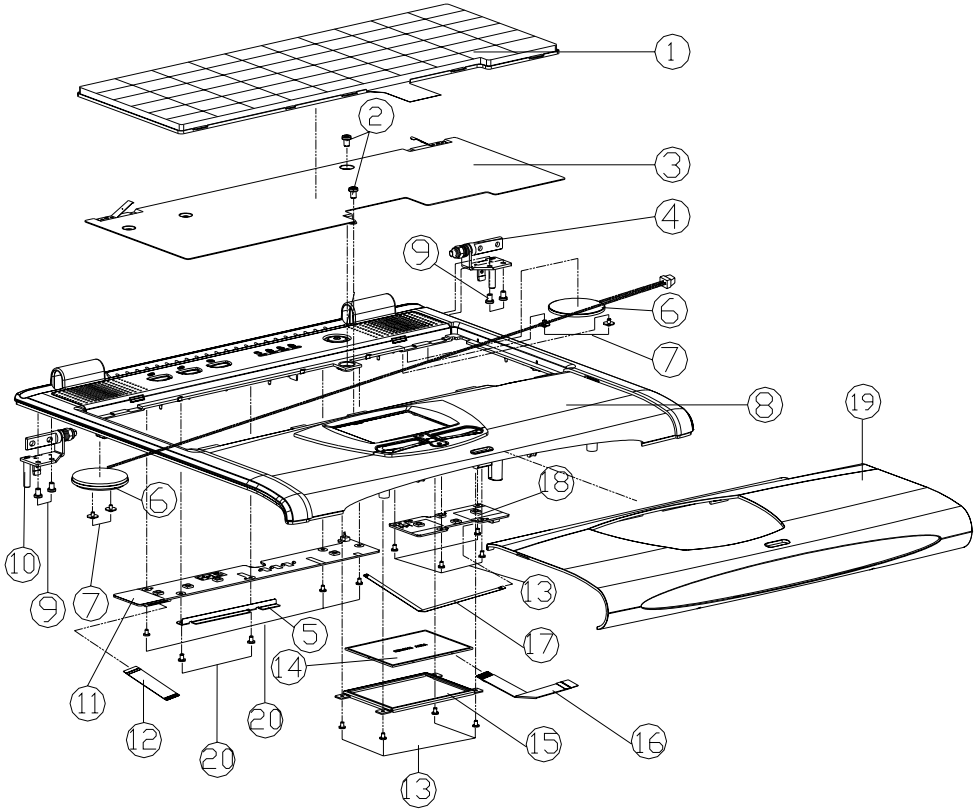
Part List Illustration Location

The following table indicates where to find the appropriate part list illustration.

Table 1 - 1
Part List Illustration Location

Part	5600D	5620D	5800D	5820D
Top	page A - 3	page A - 14	page A - 25	page A - 36
Bottom	page A - 4	page A - 15	page A - 26	page A - 37
LCD 15”	page A - 5	page A - 16	page A - 27	page A - 38
Battery	page A - 6	page A - 17	page A - 28	page A - 39
Second Battery	page A - 7	page A - 18	page A - 29	page A - 40
TEAC CD-ROM	page A - 8	page A - 19	page A - 30	page A - 41
KME CD-RW	page A - 9	page A - 20	page A - 31	page A - 42
Combo	page A - 10	page A - 21	page A - 32	page A - 43
DVD-ROM	page A - 11	page A - 22	page A - 33	page A - 44
Audio DJ	page A - 12	page A - 23	page A - 34	page A - 45
FDD	page A - 13	page A - 24	page A - 35	page A - 46

Top (5600D)



ITEM	PART NAME	PART NO	REMARK
1	KEYBOARD	80-56P08-7G0	
2	SCREW M2.5*6L P BZ ICT NY	35-06125-6RA	
3	SHIELDING FOR KEYBOARD	33-56P07-010	
4	HINGE (RIGHT)	33-56P01-070	
5	FIXED BRACKET FOR CABLE	33-56P03-060	
6	SPEAKER W/CABLE	23-53610-281	
7	SCREW M2*2.5L P NI ICT NY W/WASHER	35-01020-2RE	
8	TOP CASE MODULE	39-56P02-010	
9	M3*0.5P*4L K1 NI ICT NY	35-B1130-4R0	
10	HINGE (LEFT)	33-56P01-080	
11	LED BOARD	77-56P04-D0X	
12	FFC CABLE FOR LED&HOTKEY	43-56P02-020	
13	SCREW M2*3L K1 NI ICT NY	35-B1120-3RA	
14	TOUCH PAD SYNAPTICS TM41PDG351-1	49-42002-010	
15	TOUCH PAD BRACKET	33-56P02-050	
16	FFC CABLE FOR TOUCH PAD	43-56P02-010	
17	FFC CABLE FOR CLICK	43-56P03-010	
18	CLICK BOARD	77-56002-D0X	
19	PALMREST	42-56P72-030	
20	SCREW M2*4L K1 NI ICT NY	35-B1120-4R0	

Figure 1 - 1
Top (5600D)

Bottom (5600D)

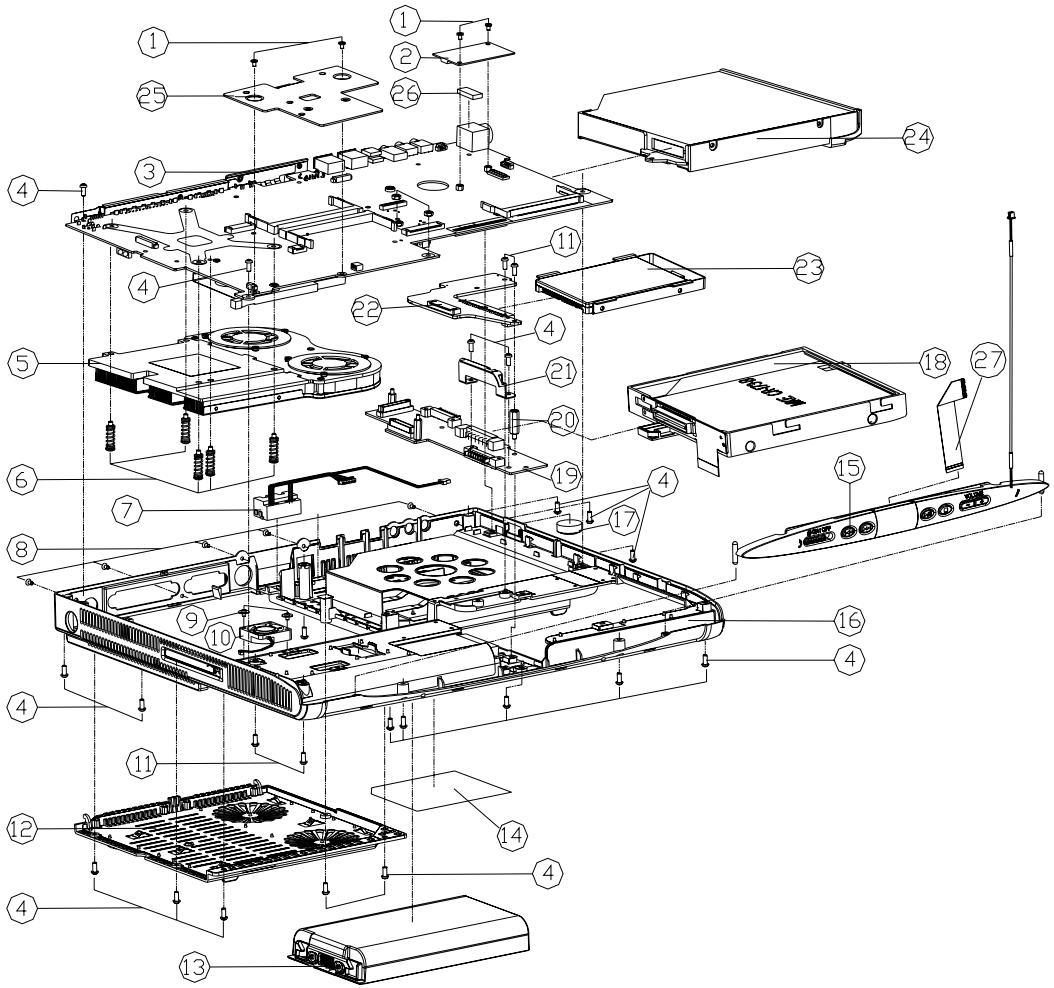
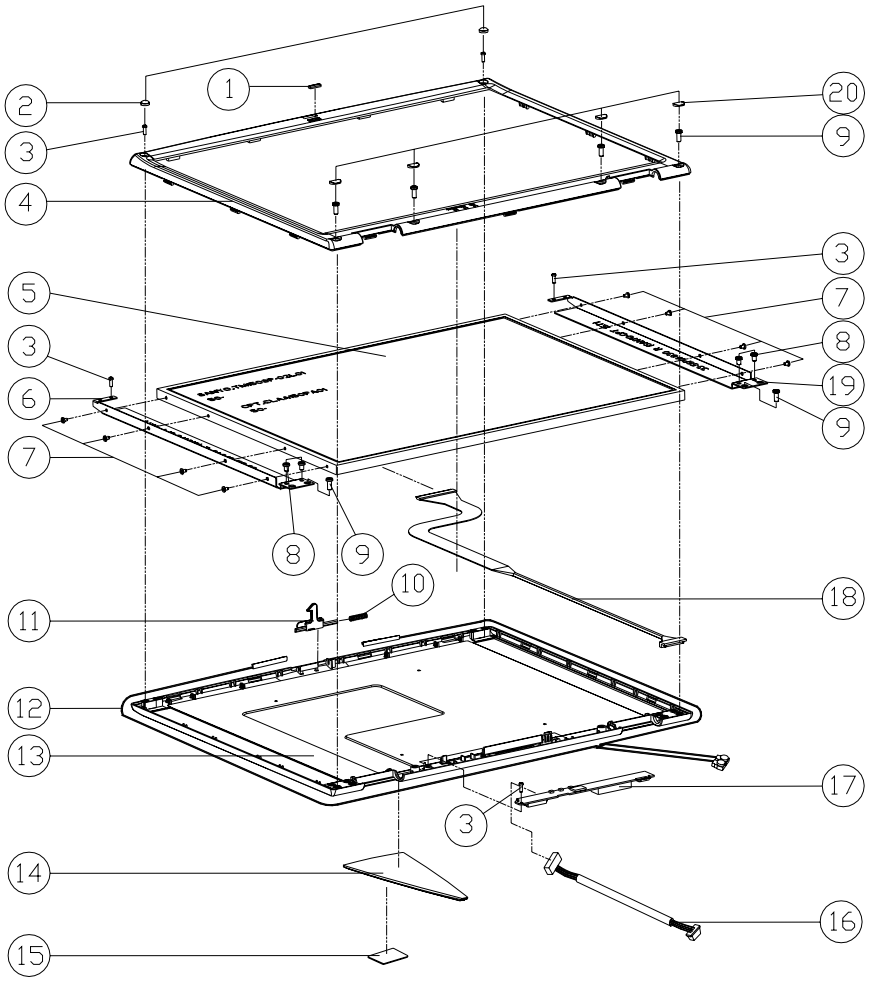


Figure 1 - 2
Bottom(5600D)

ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*3L K1 NI ICT NY	35-B1120-3RA	
2	MDC MODEM+TEL.CABLE MODULE	76-32200-100	
3	MAIN BOARD	77-56D00-D06-M	
4	SCREW M2.5*6L P BZ ICT NY	35-06125-6RA	
5	CPU HEATSINK MODULE	31-56P0N-101	
6	SCREW	35-41025-175	
7	WIRE CABLE FOR LAN AND MODEM	43-56P0U-010	
8	SCREW M2*4L F NI ICT NY	35-21120-4RA	
9	SCREW M2*2.5L P NI ICT NY W/WASHER	35-01020-2RE	
10	FAN 25*25*6.5T 5V 0.09A CON.	23-A2514-050	
11	SCREW M2.5*4L K1 BK/D ICT NY	35-B4125-4RA	
12	CPU COVER & SHIELDING PLATE MODULE P4	42-56P7S-102	
13	BATTERY S LI 4.0AH FOR SMP/SAMSUNG	87-56P8S-4D3	Reference Ass'y Dwg (99-56P05-060)
13	BATTERY S LI 4AH FOR GLW/LG	87-56P8S-4E3	Reference Ass'y Dwg (99-56P05-060)
13	BATTERY S LI 3.4AH FOR SMP/PANASONIC	87-56P8S-4C1	Reference Ass'y Dwg (99-56P05-063)
14	PRODUCT LABEL(TUV) 5600D	45-56D03-010	
15	AUDIO DJ BEKL MODULE+POWER BUTTON+SCREW+BOARD MODULE 5600	42-56P78-A00	Reference Ass'y Dwg (99-56P05-110)
16	BOTTOM CASE+SHIELDING PLATE MODULE	39-56P03-012	
17	RUBBER PAD H=7mm (BACK)	47-56P23-020	
18	FDD ASS'Y 5600P	79-56P2J-010	Reference Ass'y Dwg (99-56P05-040)
18	CD-ROM ASS'Y 5600P	79-56P2Z-010	Reference Ass'y Dwg (99-56P05-050)
18	DVD ROM ASS'Y 5600P	79-56P2V-020	Reference Ass'y Dwg (99-56P05-070)
19	DC/DC BOARD	77-56P0C-D0X	
20	HEX H=16MM M=M2.5 F=M2.5	34-56P03-010	
21	COSMETIC COVER (METAL)	33-56P03-030	
22	HDD CONVERTER BOARD	77-5600N-D0X	
23	W/D HDD ASS'Y 5600P	79-56P21-010	
24	CD-RW ASS'Y 5600P	79-56P2W-010	Reference Ass'y Dwg (99-56P05-080)
24	COMBO ASS'Y 5600P	79-56P2X-010	Reference Ass'y Dwg (99-56P05-090)
25	HEATSINK FOR PCMCIA	31-56P0N-020	
26	EMI GASKET(L18*W9*H3.5MM)	47-00190-181	
27	FFC CABLE FOR AUDIO DJ MODULE	43-56P08-010	

LCD 15” (5600D)

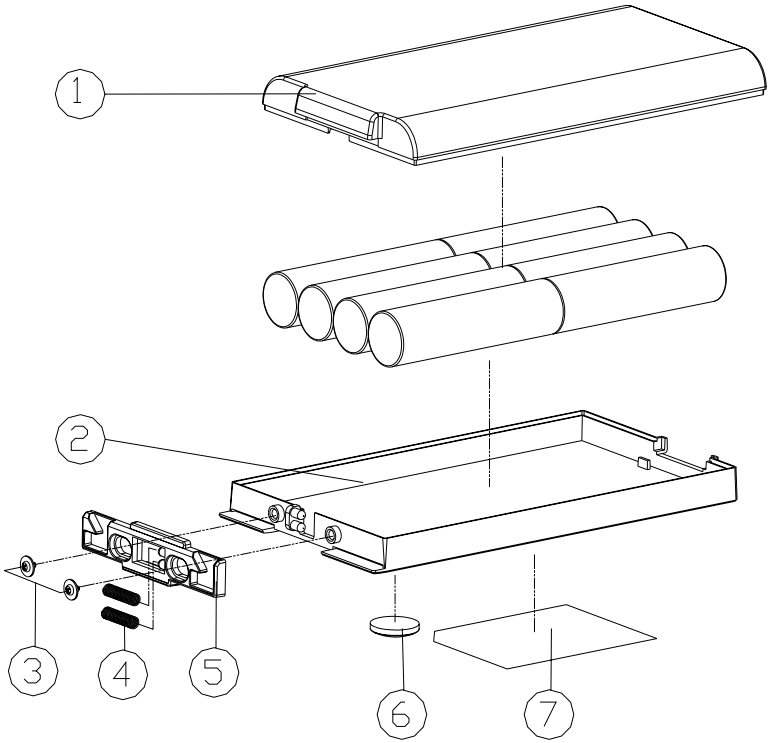


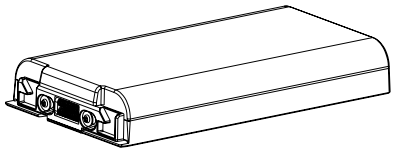
ITEM	PART NAME	PART NO	REMARK
1	RUBBER FOR LCD (MIDDLE)	47-56P21-030	
2	RUBBER FOR LCD (TOP)	47-56P32-010	
3	SCREW M2*6L P NI ICT NY	35-01120-6RA	
4	LCD FRONT PANEL MODULE(15.1")	39-56P01-013	
5	LCD 15.0" QXGA TFT IDT IAQXION 2048*1536 7.2mm	50-L6272-E01	
6	LCD BRACKET (LEFT SANYO-CPT 15.1")	33-56P01-040	
7	SCREW M2*3L K1 NI ICT NY	35-B1120-3RA	
8	SCREW M3*0.5P*4L K1 NI ICT NY	35-B1130-4R0	
9	SCREW M3*0.5*7L K1 NI ICT NY	35-B1130-7R0	
10	SPRING FOR HOOK (Ø3.7*15*0.3d)	38-21P30-011	
11	HOOK KNOB	42-56P81-011	
12	2.4GHZ DIPOLE ANTENNA OD1.32MM L=RIGH+LEFT	23-712R4-002	
13	BACK PANEL MODULE	39-56P01-024	
14	NAMEPLATE BASE	42-56P03-010	
15	NAME PLATE "NOTEBOOK"	45-42001-010	
16	WIRE CABLE FOR INVERTER	43-56P0R-011	
17	INVERTER BOARD	77-4200R-D02-1	
18	LCD COAXIAL CABLE FOR IBM QXGA	43-56P01-070	
19	LCD BRACKET(RIGHT SANYO-CPT 15.1")	33-56P01-030	
20	RUBBER FOR LCD (BOTTOM)	47-56P33-010	

Figure 1 - 3
LCD 15” 5600D

Battery (5600D)

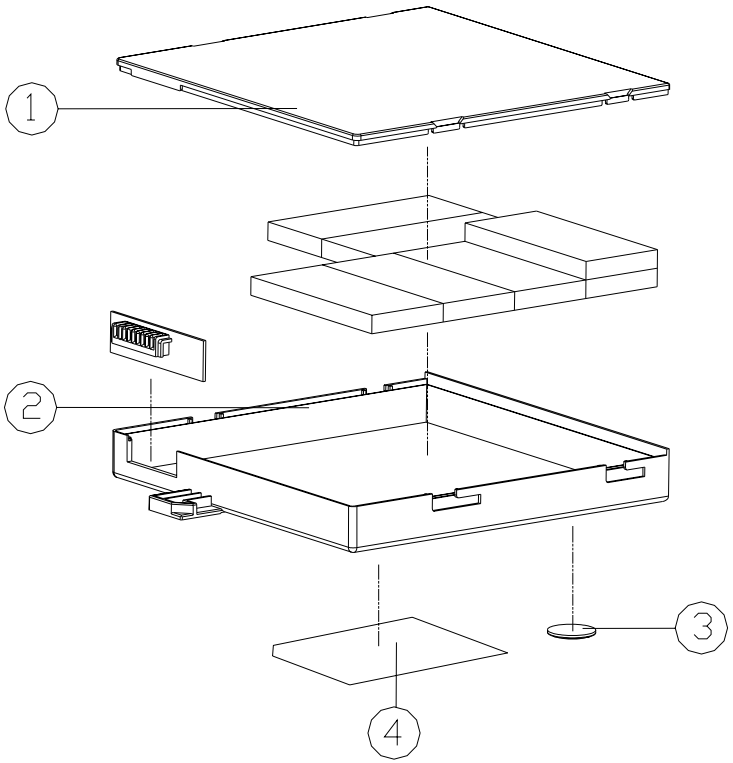
Figure 1 - 4
Battery (5600D)

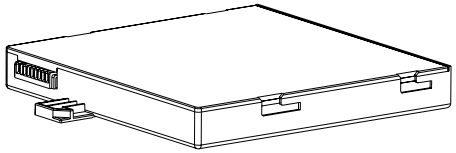




ITEM	PART NAME	PART NO	REMARK
1	BATTERY TOP CASE	42-56P7M-010	
2	BATTERY BOTTOM CASE	42-56P7M-020	
3	SCREW M2*2.5L P NI ICT W/WASHER	35-01020-2RE	
4	SPRING	38-5600M-010	
5	BATTERY LOCK	42-56P8M-010	
6	RUBBER PAN H=4mm	47-56P23-040	
7	BATTERY LABEL	87-56P8S-4D3	
7	BATTERY LABEL	87-56P8S-4E3	

Second Battery (5600D)



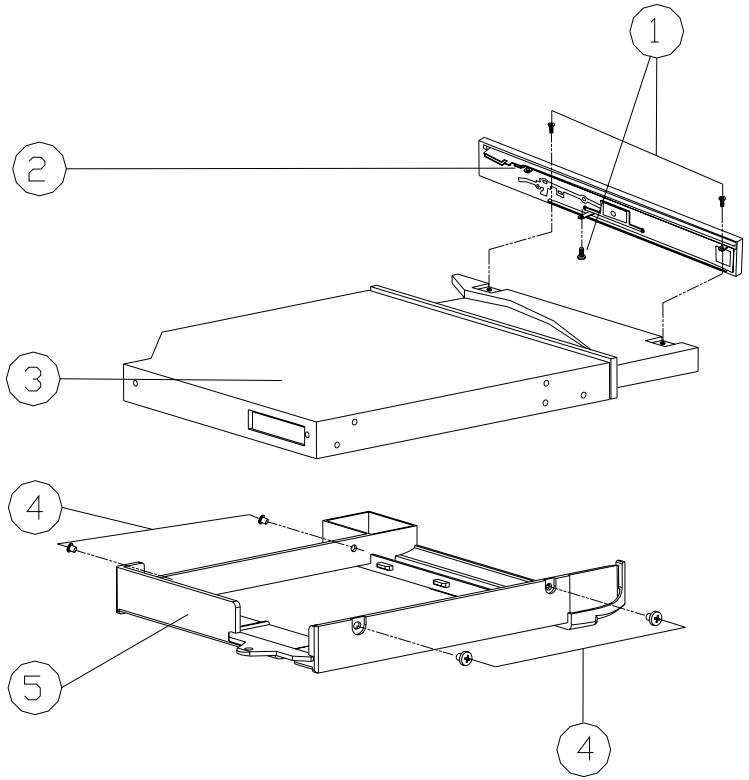


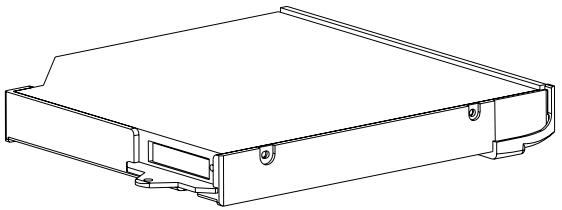
ITEM	PART NAME	PART NO	REMARK
1	SECOND BATTERY TOP COVER	42-56P7M-031	
2	SECOND BATTERY BOTTOM CASE	42-56P7M-041	
3	RUBBER PAN H=4mm	47-56P23-040	
4	BATTERY LABEL	87-56P8S-4C1	
4	BATTERY LABEL	87-56P8S-4E1	

Figure 1 - 5
Second Battery (5600D)

TEAC CD-ROM Drive (5600D)

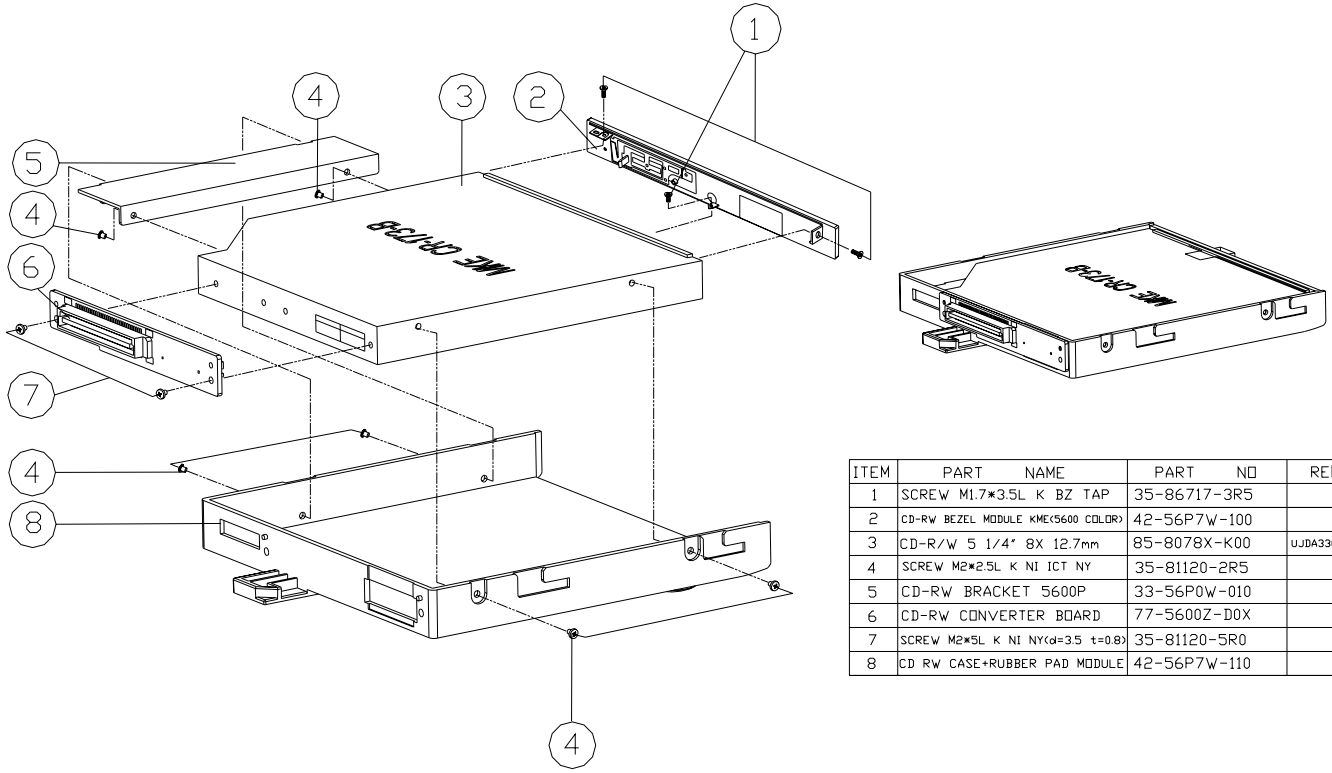
Figure 1 - 6
CD-ROM TEAC (5600D)





ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*5L K1 BK/□ TAP	35-B4920-5R0	
2	CD-ROM BEZEL MODULE FOR TEAC	42-56P7Z-100	
3	CD-ROM 5 1/4" 24X 12.7mm	85-6070X-706	CD-224E-B20
4	SCREW M2*2.5L K NI ICT NY	35-81120-2R5	
5	CD & DVD ROM CASE	42-5607Z-010	

KME CD-RW Drive (5600D)

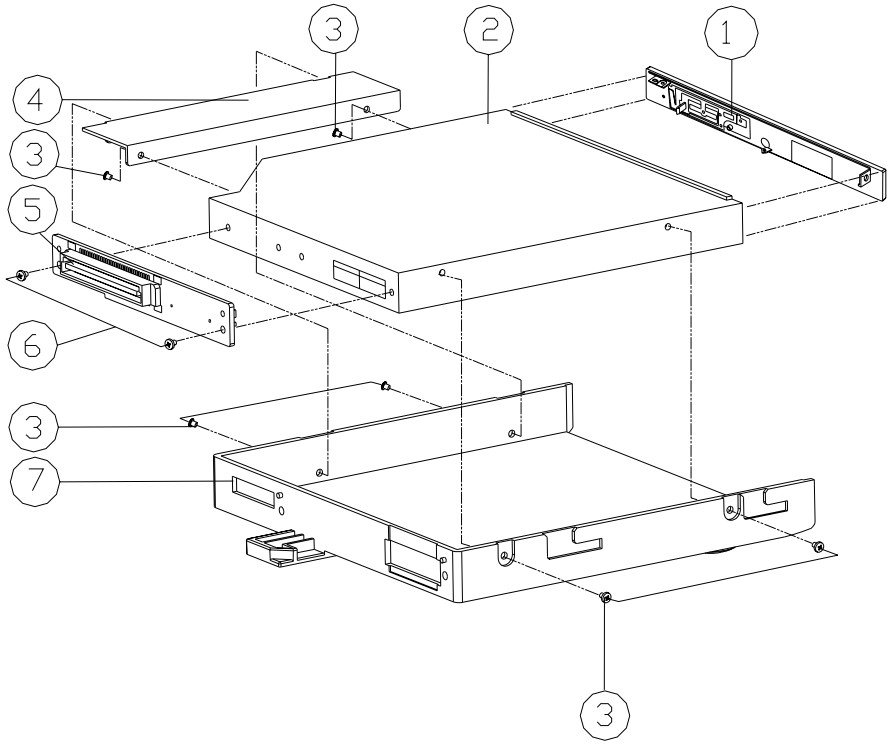


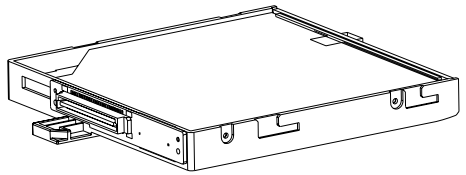
ITEM	PART NAME	PART NO	REMARK
1	SCREW M1.7*3.5L K BZ TAP	35-86717-3R5	
2	CD-RW BEZEL MODULE KME<5600 COLOR>	42-56P7W-100	
3	CD-R/W 5 1/4" 8X 12.7mm	85-8078X-K00	UJDA330CL-Z KME
4	SCREW M2*2.5L K NI ICT NY	35-81120-2R5	
5	CD-RW BRACKET 5600P	33-56P0W-010	
6	CD-RW CONVERTER BOARD	77-5600Z-D0X	
7	SCREW M2*5L K NI NY<d=3.5 t=0.8>	35-81120-5R0	
8	CD RW CASE+RUBBER PAD MODULE	42-56P7W-110	

Figure 1 - 7
CD-RW KME (5600D)

Combo Drive (5600D)

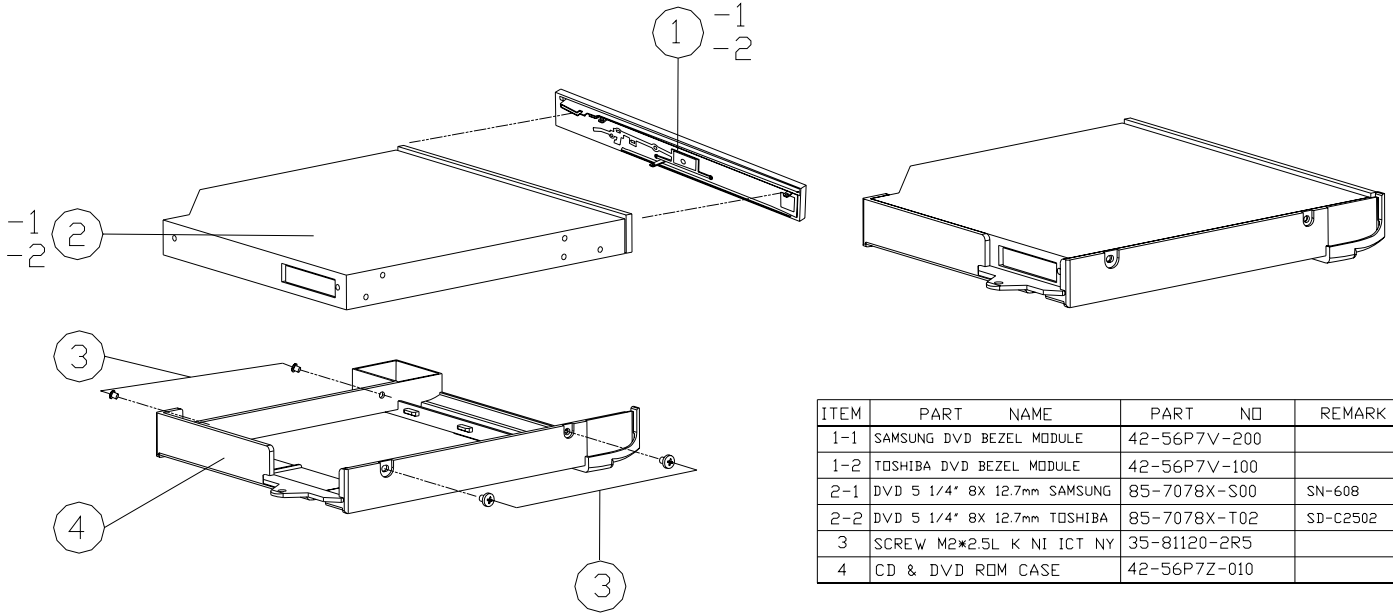
Figure 1 - 8
Combo (5600D)





ITEM	PART NAME	PART NO	REMARK
1	SAMSUNG COMBO BEZEL MODULE	42-56P7X-100	
2	CD-RW/DVD 5 1/4" 8X 12.7mm	85-9078X-S00	SN-308B SAMSUNG
3	SCREW M2*2.5L K NI ICT NY	35-81120-2R5	
4	CD-RW BRACKET 5600P	33-56P0W-010	
5	CD-RW CONVERTER BOARD	77-5600Z-D0X	
6	SCREW M2*5L K NI NY(d=3.5 t=0.8)	35-81120-5R0	
7	CD RW CASE+RUBBER PAD MODULE	42-56P7W-110	

DVD-ROM Drive (5600D)

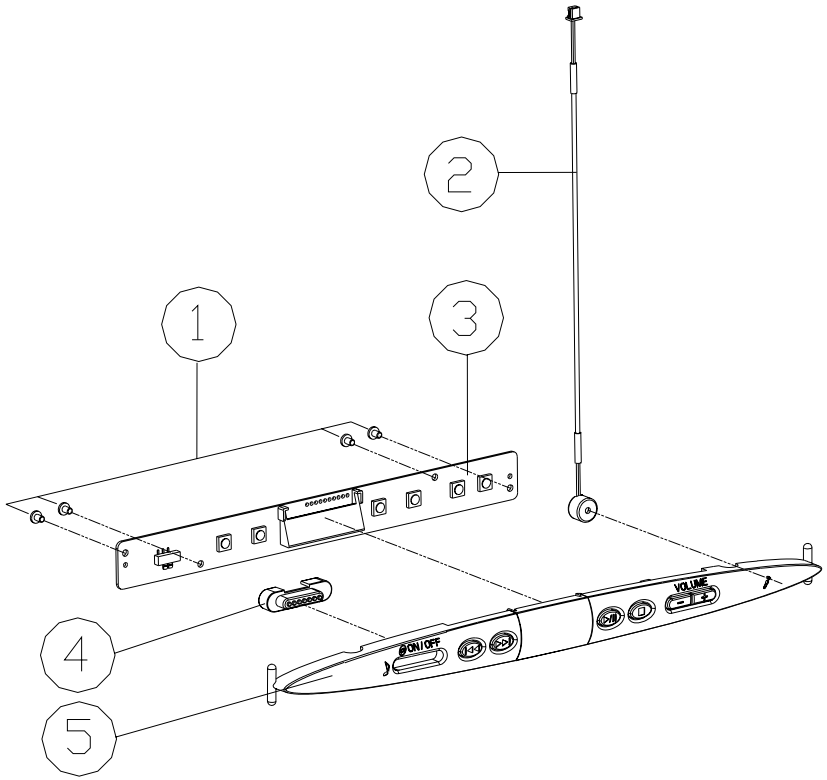


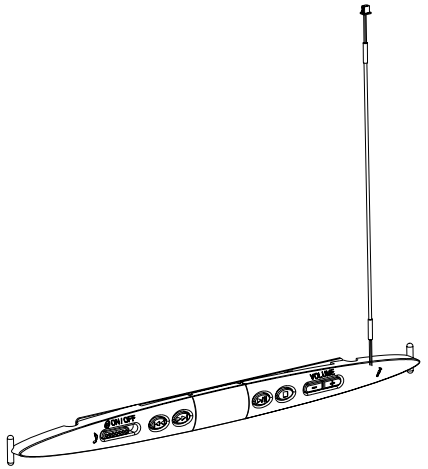
ITEM	PART NAME	PART NO	REMARK
1-1	SAMSUNG DVD BEZEL MODULE	42-56P7V-200	
1-2	TOSHIBA DVD BEZEL MODULE	42-56P7V-100	
2-1	DVD 5 1/4" 8X 12.7mm SAMSUNG	85-7078X-S00	SN-608
2-2	DVD 5 1/4" 8X 12.7mm TOSHIBA	85-7078X-T02	SD-C2502
3	SCREW M2*2.5L K NI ICT NY	35-81120-2R5	
4	CD & DVD ROM CASE	42-56P7Z-010	

Figure 1 - 9
DVD (5600D)

Audio DJ (5600D)

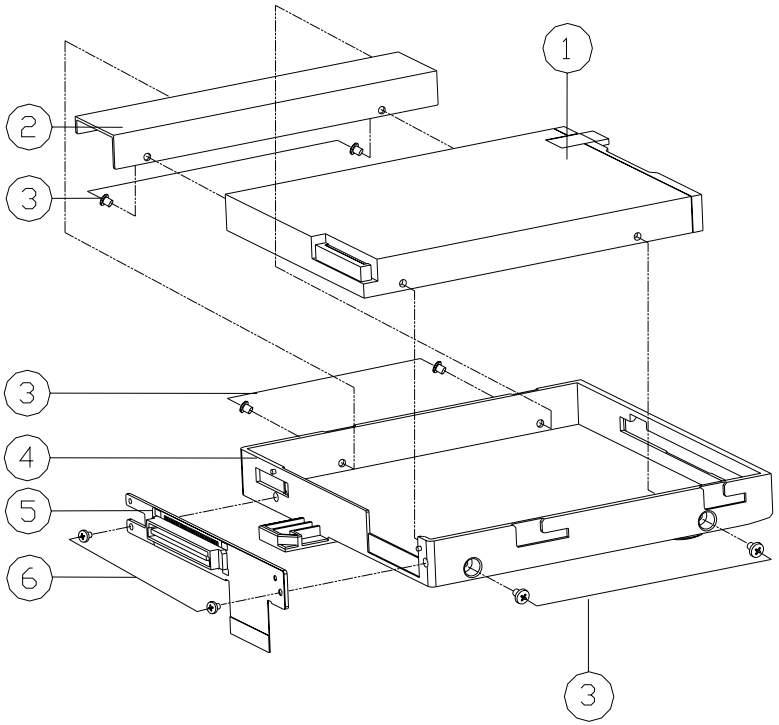
Figure 1 - 10
Audio DJ (5600D)

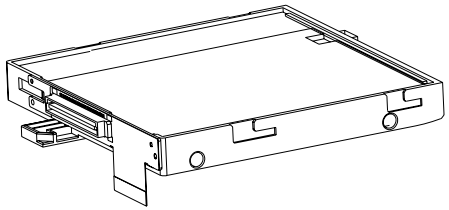




ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*3L K1 NI ICT NY	35-B1120-3RA	
2	WIRE CABLE FOR MICROPHONE ASSEMBLY	43-5600T-010	
3	AUDIO DJ BOARD	77-5600Y-D0X	
4	POWER BUTTON FOR AUDIO DJ	42-56P82-010	
5	AUDIO MODULE	42-56278-100	

Floppy Disk Drive (5600D)



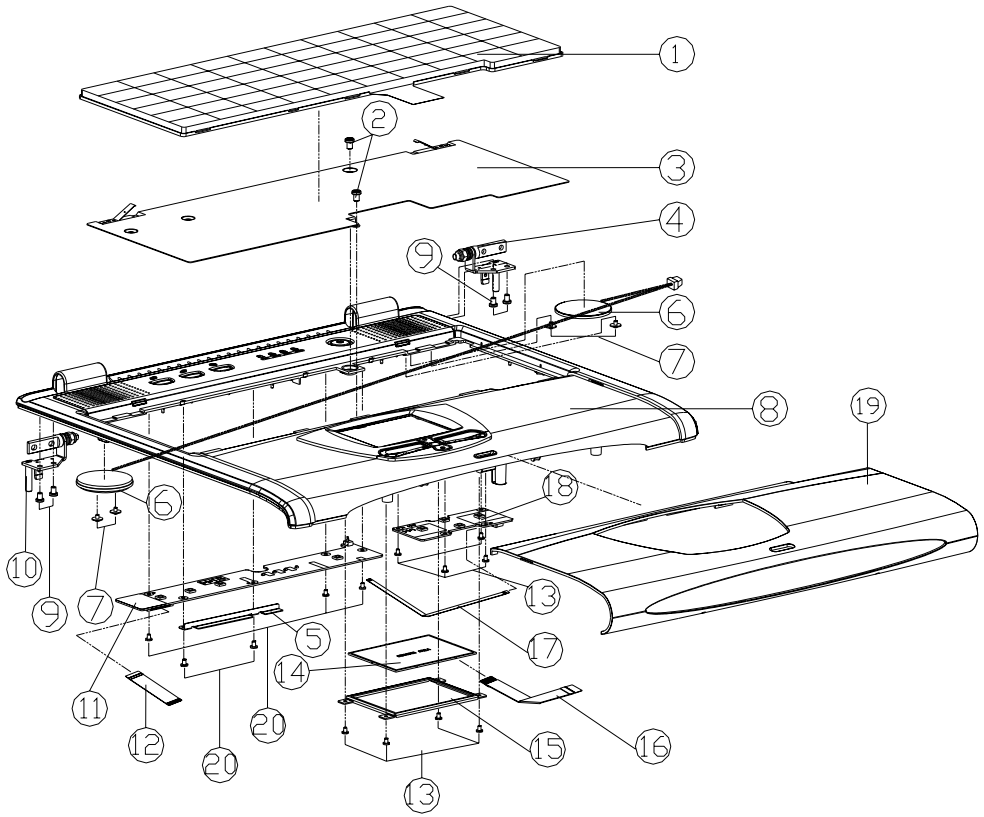


ITEM	PART NAME	PART NO	REMARK
1	3.5" FDD 12.7mm Y-E DATA	85-11700-Y01	YD-702J-6637J
2	FDD BRACKET 5600P	33-56P0J-010	
3	SCREW M2.5*4L K1 BK/O ICT NY	35-B4125-4RA	
4	FDD CASE+RUBBER PAD MODULE	42-56P7J-100	
5	FPC CABLE MODULE FOR FDD ADAPTOR	43-5600J-010	
6	SCREW M2*4L K BZ ICT NY	35-86120-4RA	

Figure 1 - 11
Floppy Disk Drive (5600D)

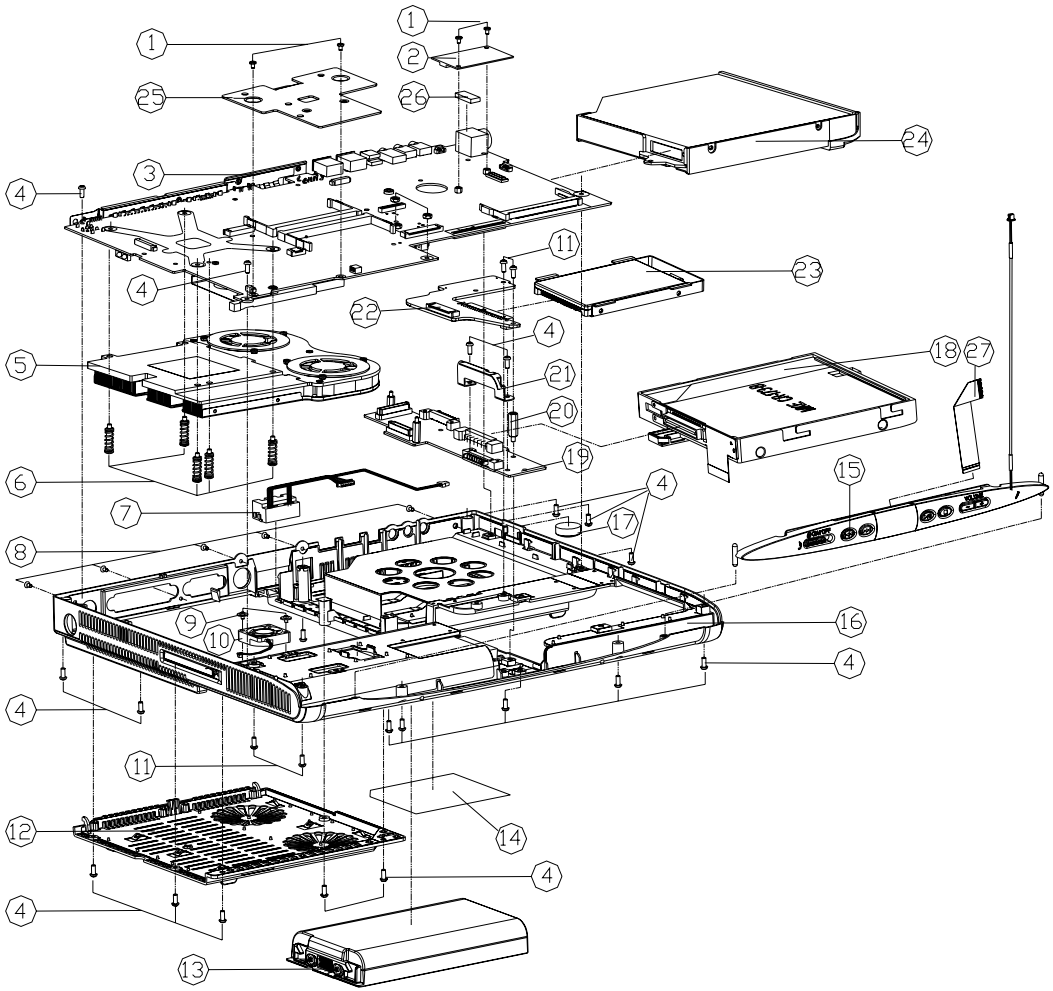
Top (5620D)

Figure 1 - 12
Top (5620D)



ITEM	PART NAME	PART NO	REMARK
1	KEYBOARD	80-56P08-7G0	
2	SCREW M2.5*6L P BZ ICT NY	35-06125-6RA	
3	SHIELDING FOR KEYBOARD	33-56P07-010	
4	HINGE (RIGHT)	33-56P01-070	
5	FIXED BRACKET FOR CABLE	33-56P03-060	
6	SPEAKER W/CABLE	23-53610-281	
7	SCREW M2*2.5L P NI ICT NY W/WASHER	35-01020-2RE	
8	TOP CASE MODULE	39-56202-010	
9	M3*0.5P*4L K1 NI ICT NY	35-B1130-4R0	
10	HINGE (LEFT)	33-56P01-080	
11	LED BOARD	77-56P04-D0X	
12	FFC CABLE FOR LED&HOTKEY	43-56P02-020	
13	SCREW M2*3L K1 NI ICT NY	35-B1120-3RA	
14	TOUCH PAD SYNAPTICS TM41PDG351-1	49-42002-010	
15	TOUCH PAD BRACKET	33-56P02-050	
16	FFC CABLE FOR TOUCH PAD	43-56P02-010	
17	FFC CABLE FOR CLICK	43-56P03-010	
18	CLICK BOARD	77-56002-D0X	
19	PALMREST	42-56272-030	
20	SCREW M2*4L K1 NI ICT NY	35-B1120-4R0	

Bottom (5620D)

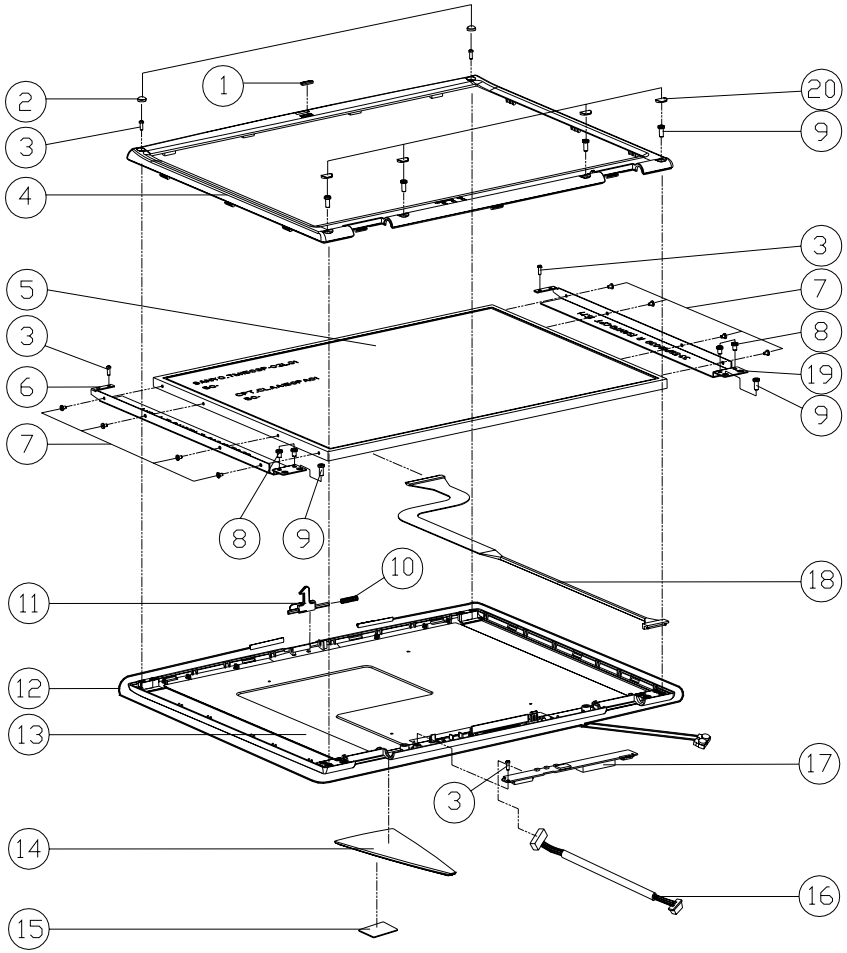


ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*3L K1 NI ICT NY	35-B1120-3RA	
2	MDC MODEM+TEL.CABLE MODULE	76-32200-100	
3	MAIN BOARD	77-56D00-D06-M	
4	SCREW M2.5*6L P BZ ICT NY	35-06125-6RA	
5	CPU HEATSINK MODULE	31-56P0N-101	
6	SCREW	35-41025-175	
7	WIRE CABLE FOR LAN AND MODEM	43-56P0U-010	
8	SCREW M2*4L F NI ICT NY	35-21120-4RA	
9	SCREW M2*2.5L P NI ICT NY W/WASHER	35-01020-2RE	
10	FAN 25*25*6.5T 5V 0.09A CON.	23-A2514-050	
11	SCREW M2.5*4L K1 BK/D ICT NY	35-B4125-4RA	
12	CPU COVER + SHIELDING PLATE+RUBBER PAD MODULE	42-5627S-100	
13	BATTERY S LI 4.0AH FOR SMP/SAMSUNG	87-5628S-4D3	Reference Ass'y Dwg (99-56205-060)
13	BATTERY S LI 4AH FOR GLW/LG	87-5628S-4E3	Reference Ass'y Dwg (99-56205-060)
13	BATTERY S LI 3.4AH FOR SMP/PANASONIC	87-5628S-4C1	Reference Ass'y Dwg (99-56205-063)
14	PRODUCT LABEL(TUV) 5620D	45-562D3-010	
15	AUDIO DJ BOARD MODULE+POWER BUTTON+SCREW+BOARD MODULE 5620	42-56278-A00	Reference Ass'y Dwg (99-56205-110)
16	BOTTOM CASE+SHIELDING PLATE MODULE	39-56203-012	
17	RUBBER PAD H=7mm (BACK)	47-56223-020	
18	FDD ASS'Y 5600P	79-5622J-010	Reference Ass'y Dwg (99-56205-040)
18	CD-ROM ASS'Y 5600P	79-5622Z-010	Reference Ass'y Dwg (99-56205-050)
18	DVD ROM ASS'Y 5600P	79-5622V-020	Reference Ass'y Dwg (99-56205-070)
19	DC/DC BOARD	77-56P0C-D0X	
20	HEX H=16MM M=M2.5 F=M2.5	34-56P03-010	
21	COSMETIC COVER (METAL)	33-56P03-030	
22	HDD CONVERTER BOARD	77-5600N-D0X	
23	W/D HDD ASS'Y 5600P	79-56P2I-010	
24	CD-RW ASS'Y 5600P	79-5622W-010	Reference Ass'y Dwg (99-56205-080)
24	COMBO ASS'Y 5600P	79-5622X-010	Reference Ass'y Dwg (99-56205-090)
25	HEATSINK FOR PCMCIA	31-56P0N-020	
26	EMI GASKET(L18*W9*H3.5MM)	47-00190-181	
27	FFC CABLE FOR AUDIO DJ MODULE	43-56P08-010	

Figure 1 - 13
Bottom (5620D)

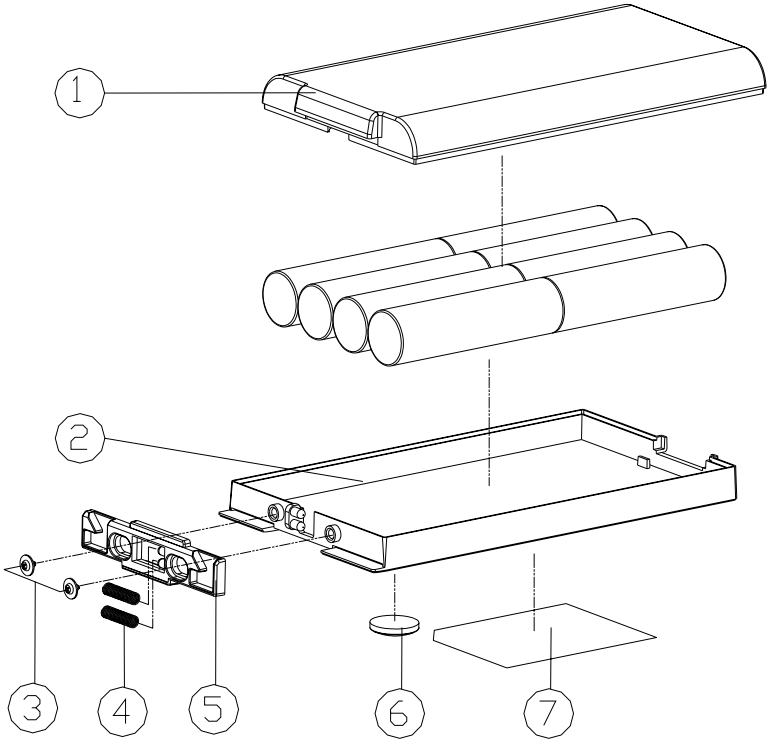
LCD 15” (5620D)

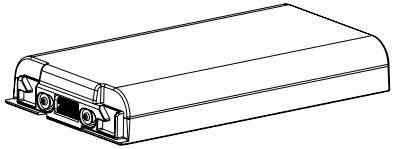
Figure 1 - 14
LCD 15” (5620D)



ITEM	PART NAME	PART NO	REMARK
1	RUBBER FOR LCD (MIDDLE)	47-56221-030	
2	RUBBER FOR LCD (TOP)	47-56232-010	
3	SCREW M2*6L P NI ICT NY	35-01120-6RA	
4	LCD FRONT PANEL MODULE(15.1")	39-56201-013	
5	LCD 15.0" QXGA TFT IDT IAQX1QN 2048*1536 7.2mm	50-L6270-E01	
6	LCD BRACKET (LEFT SANYO-CPT 15.1")	33-56P01-040	
7	SCREW M2*3L K1 NI ICT NY	35-B1120-3RA	
8	SCREW M3*0.5P*4L K1 NI ICT NY	35-B1130-4R0	
9	SCREW M3*0.5*7L K1 NI ICT NY	35-B1130-7R0	
10	SPRING FOR HOOK (Ø3.7*15*0.3d)	38-21P30-011	
11	HOOK KNOB	42-56P81-011	
12	2.4GHZ DIPOLE ANTENNA OD:1.32MM L=RIGH+LEFT	23-712R4-002	
13	BACK PANEL MODULE	39-56201-024	
14	NAMEPLATE BASE	42-56203-010	
15	NAME PLATE "NOTEBOOK"	45-18N01-010	
16	WIRE CABLE FOR INVERTER	43-56P0R-011	
17	INVERTER BOARD	77-4200R-D02-1	
18	LCD COAXIAL CABLE FOR IBM QXGA	43-56P01-070	
19	LCD BRACKET(RIGHT SANYO-CPT 15.1")	33-56P01-030	
20	RUBBER FOR LCD (BOTTOM)	47-56233-010	

Battery (5620D)



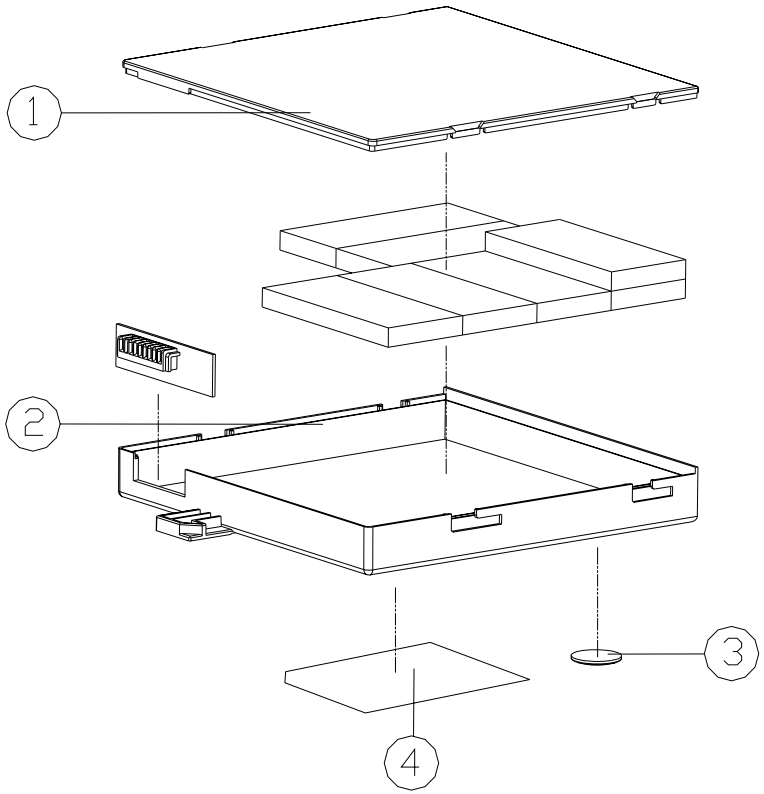


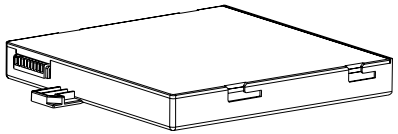
ITEM	PART NAME	PART NO	REMARK
1	BATTERY TOP CASE	42-5627M-010	
2	BATTERY BOTTOM CASE	42-5627M-020	
3	SCREW M2*2.5L P NI ICT W/WASHER	35-01020-2RE	
4	SPRING	38-5600M-010	
5	BATTERY LOCK	42-58P8M-010	
6	RUBBER PAN H=4mm	47-56223-040	
7	BATTERY LABEL	87-5628S-4D3	
7	BATTERY LABEL	87-5628S-4E3	

Figure 1 - 15
Battery (5620D)

Second Battery (5620D)

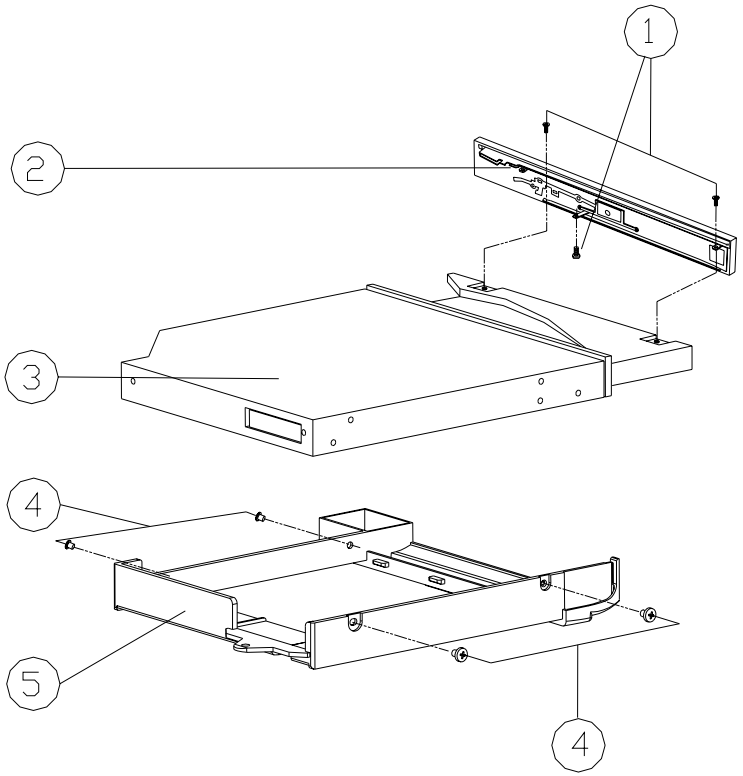
Figure 1 - 16
Second Battery (5620D)

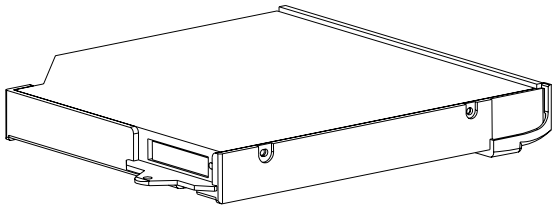




ITEM	PART NAME	PART NO	REMARK
1	SECOND BATTERY TOP COVER	42-5627M-030	
2	SECOND BATTERY BOTTOM CASE	42-5627M-040	
3	RUBBER PAN H=4mm	47-56223-030	
4	BATTERY LABEL	87-5628S-4C1	
4	BATTERY LABEL	87-5628S-4E1	

TEAC CD-ROM Drive (5620D)



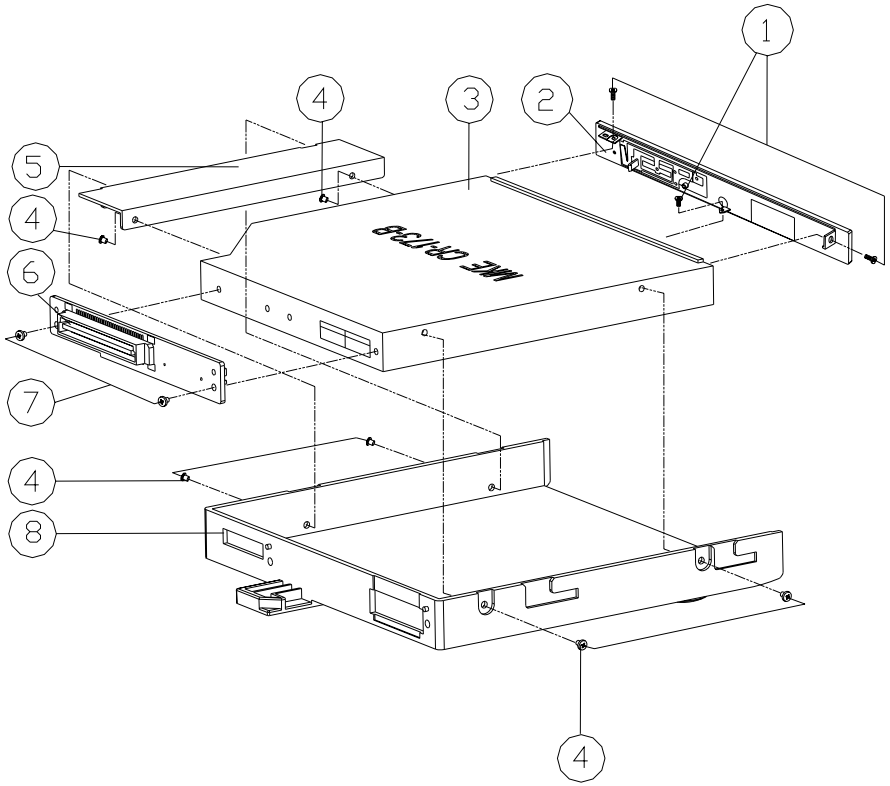


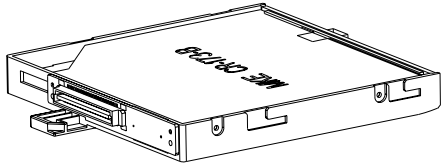
ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*5L K1 BK/O TAP	35-B4920-5R0	
2	CD-ROM BEZEL MODULE FOR TEAC	42-5627Z-100	
3	CD-ROM 5 1/4" 24X 12.7mm	85-6070X-706	CD-224E-B20
4	SCREW M2*2.5L K NI ICT NY	35-81120-2R5	
5	CD & DVD ROM CASE	42-5627Z-010	

Figure 1 - 17
TEAC CD-ROM Drive (5620D)

KME CD-RW Drive (5620D)

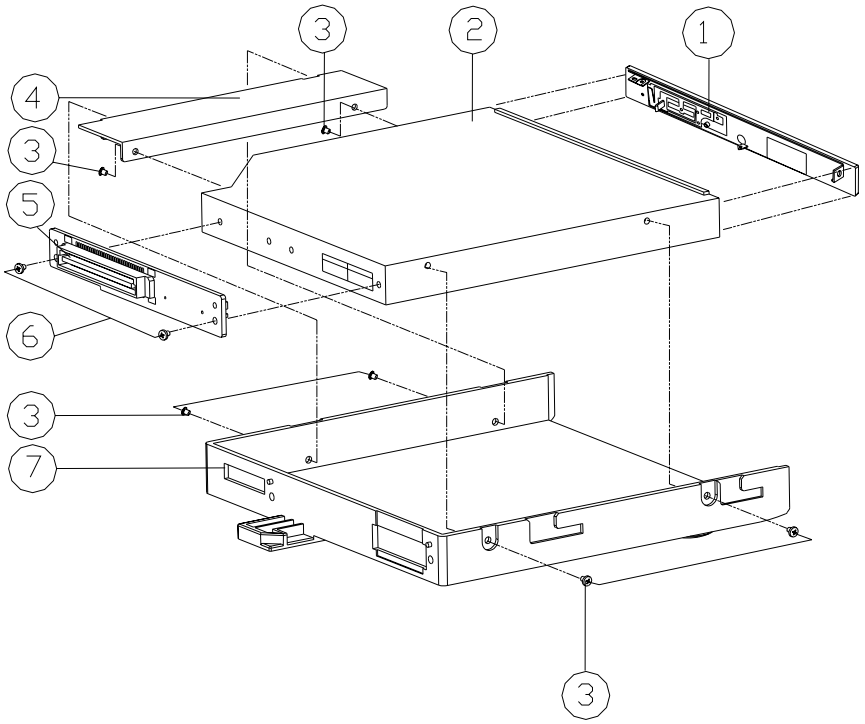
Figure 1 - 18
KME CD-RW Drive (5620D)

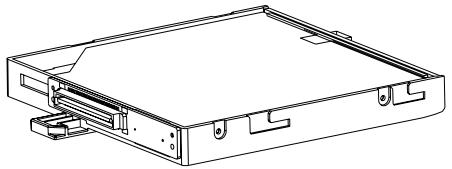




ITEM	PART NAME	PART NO	REMARK
1	SCREW M1.7*3.5L K BZ TAP	35-86717-3R5	
2	CD-RW BEZEL MODULE KME(5600 COLOR)	42-5627W-100	
3	CD-R/W 5 1/4" 8X 12.7mm	85-8078X-K00	UJDA330CL-Z KME
4	SCREW M2*2.5L K NI ICT NY	35-81120-2R5	
5	CD-RW BRACKET 5600P	33-56P0W-010	
6	CD-RW CONVERTER BOARD	77-5600Z-D0X	
7	SCREW M2*5L K NI NY(d=3.5 t=0.8)	35-81120-5R0	
8	CD RW CASE+RUBBER PAD MODULE	42-5627W-110	

Combo Drive (5620D)



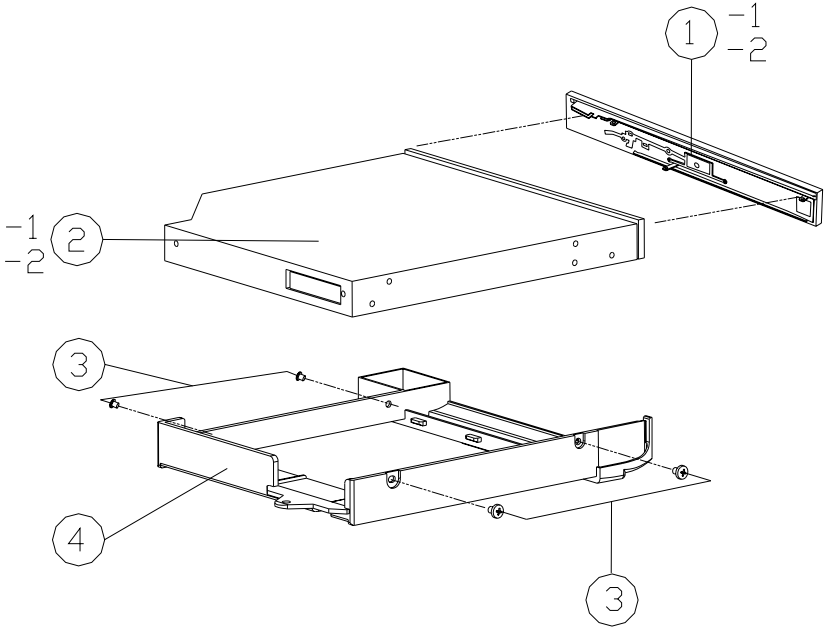


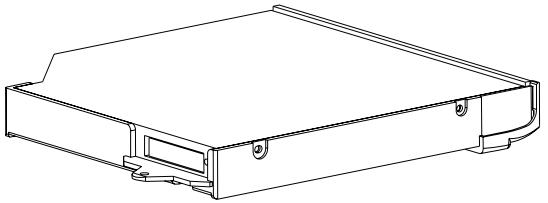
ITEM	PART NAME	PART NO	REMARK
1	SAMSUNG COMBO BEZEL MODULE	42-5620X-100	
2	CD-RW/DVD 5 1/4" 8X 12.7mm	85-9078X-S00	SN-308B SAMSUNG
3	SCREW M2*2.5L K NI ICT NY	35-81120-2R5	
4	CD-RW BRACKET 5600P	33-56P0W-010	
5	CD-RW CONVERTER BOARD	77-5600Z-D0X	
6	SCREW M2*5L K NI NY(d=3.5 t=0.8)	35-81120-5R0	
7	CD RW CASE+RUBBER PAD MODULE	42-5627W-110	

Figure 1 - 19
Combo Drive (5620D)

DVD-ROM Drive (5620D)

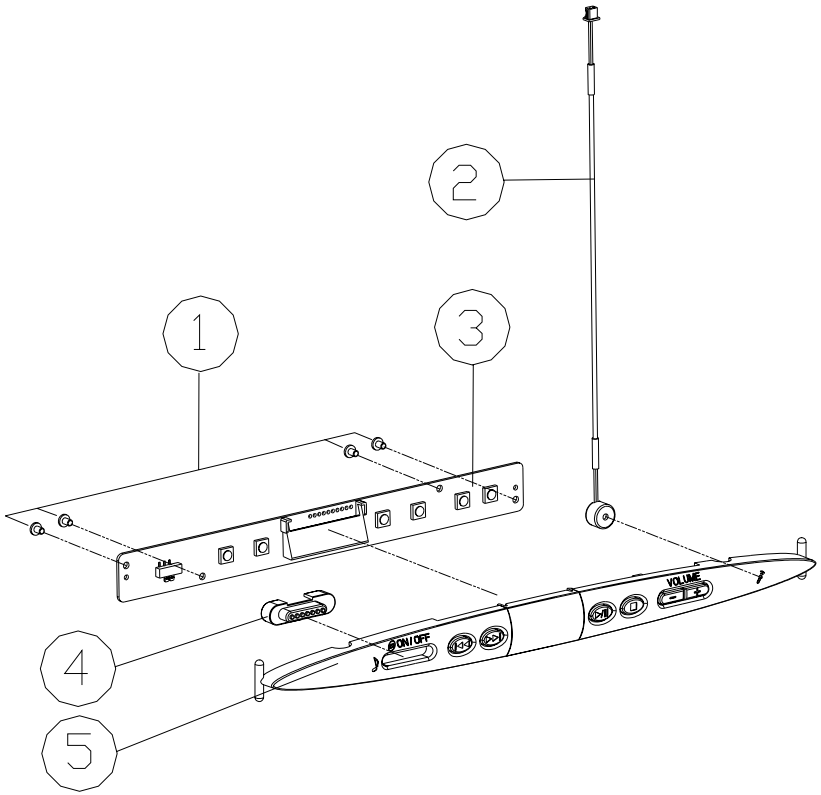
Figure 1 - 20
DVD-ROM Drive (5620D)

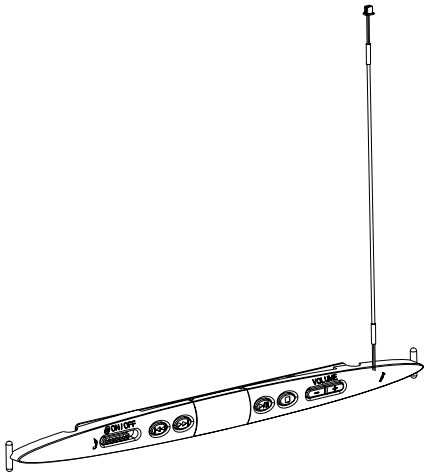




ITEM	PART NAME	PART NO	REMARK
1-1	SAMSUNG DVD BEZEL MODULE	42-5627V-200	
1-2	TOSHIBA DVD BEZEL MODULE	42-5627V-100	
2-1	DVD 5 1/4" 8X 12.7mm SAMSUNG	85-7078X-S00	SN-608
2-2	DVD 5 1/4" 8X 12.7mm TOSHIBA	85-7078X-T02	SD-C2502
3	SCREW M2*2.5L K NI ICT NY	35-81120-2R5	
4	CD & DVD ROM CASE	42-5627Z-010	

Audio DJ (5620D)



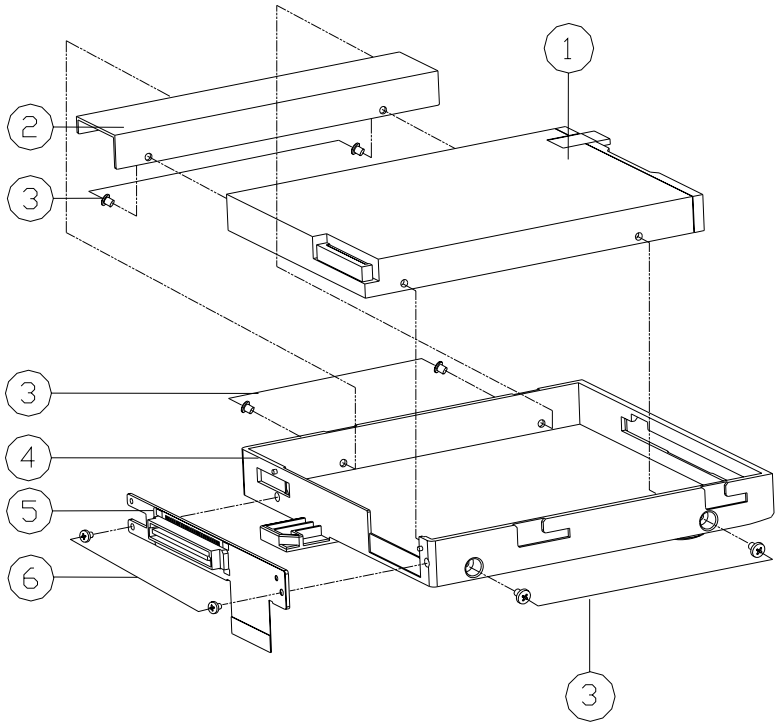


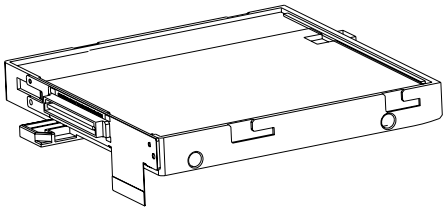
ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*3L K1 NI ICT NY	35-B1120-3RA	
2	WIRE CABLE FOR MICROPHONE ASSEMBLY	43-5600T-010	
3	AUDIO DJ BOARD	77-5600Y-D0X	
4	POWER BUTTON FOR AUDIO DJ	42-56P82-010	
5	AUDIO MODULE	42-56278-100	

Figure 1 - 21
Audio DJ (5620D)

Floppy Disk Drive (5620D)

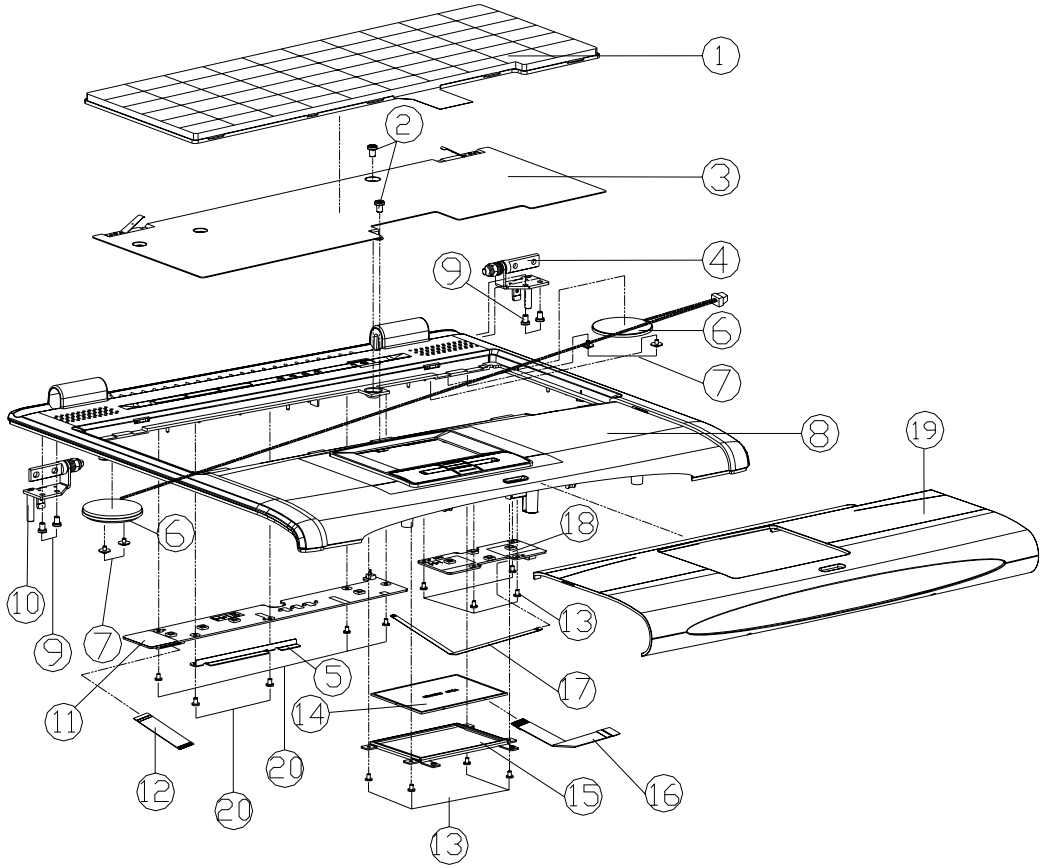
Figure 1 - 22
Floppy Disk Drive (5620D)





ITEM	PART NAME	PART NO	REMARK
1	3.5" FDD 12.7mm Y-E DATA	85-11700-Y01	YD-702J-6637J
2	FDD BRACKET 5600P	33-56P0J-010	
3	SCREW M2.5*4L K1 BK/□ ICT NY	35-B4125-4RA	
4	FDD CASE+RUBBER PAD MODULE	42-5627J-100	
5	FPC CABLE MODULE FOR FDD ADAPTOR	43-5600J-010	
6	SCREW M2*4L K1 NI ICT NY	35-B1120-4RA	

Top (5800D)



ITEM	PART NAME	PART NO	REMARK
1	KEYBOARD	80-56P08-7G0	
2	SCREW M2.5*6L P BZ ICT NY	35-06125-6RA	
3	SHIELDING FOR KEYBOARD	33-56P07-010	
4	HINGE (RIGHT)	33-56P01-070	
5	FIXED BRACKET FOR CABLE	33-56P03-060	
6	SPEAKER W/CABLE	23-53610-281	
7	SCREW M2*2.5L P NI ICT NY W/WASHER	35-01020-2RE	
8	TOP CASE MODULE	39-58P02-010	
9	M3*0.5P*4L K1 NI ICT NY	35-B1130-4R0	
10	HINGE (LEFT)	33-56P01-080	
11	LED BOARD	77-56P04-D0X	
12	FFC CABLE FOR LED&HOTKEY	43-56P02-020	
13	SCREW M2*3L K1 NI ICT NY	35-B1120-3RA	
14	TOUCH PAD SYNAPTICS TM41PDG351-1	49-42002-010	
15	TOUCH PAD BRACKET	33-58P02-050	
16	FFC CABLE FOR TOUCH PAD	43-56P02-010	
17	FFC CABLE FOR CLICK	43-56P03-010	
18	CLICK BOARD	77-58002-D0X	
19	TRANSFPAENT COVER	42-58P72-030	
20	SCREW M2*4L K1 NI ICT NY	35-B1120-4R0	

Figure 1 - 23
Top (5800D)

Bottom (5800D)

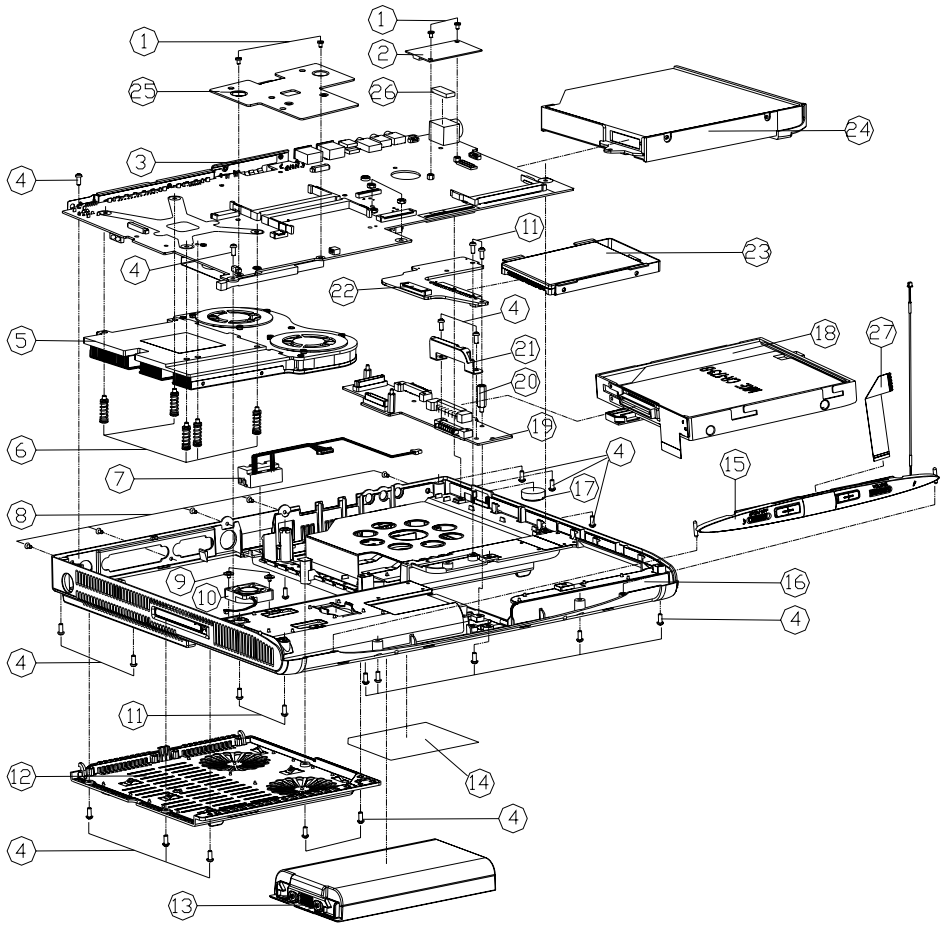
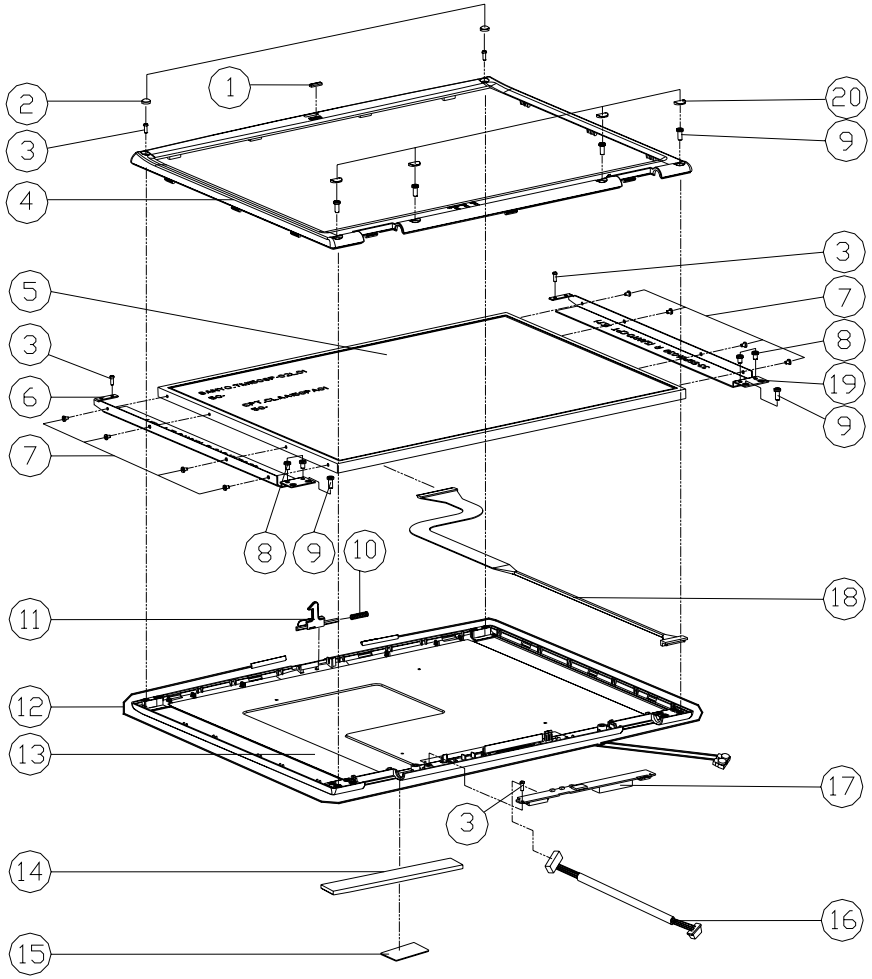


Figure 1 - 24
Bottom (5800D)

ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*3L K1 NI ICT NY	35-BI120-3RA	
2	MDC MODEM+TEL.CABLE MODULE	76-32200-100	
3	MAIN BOARD	77-56D00-D06-M	
4	SCREW M2.5*6L P BZ ICT NY	35-06125-6RA	
5	CPU HEATSINK MODULE	31-56P0N-101	
6	SCREW	35-41025-175	
7	WIRE CABLE FOR LAN AND MODEM	43-56P0U-010	
8	SCREW M2*4L F NI ICT NY	35-21120-4RA	
9	SCREW M2*2.5L P NI ICT NY W/WASHER	35-01020-2RE	
10	FAN 25*25*6.5T 5V 0.09A CON.	23-A2514-050	
11	SCREW M2.5*4L K1 BK/D ICT NY	35-B4125-4RA	
12	CPU COVER & SHIELDING PLATE MODULE P4	42-58P7S-100	
13	BATTERY S LI 4.0AH FOR SMP/SAMSUNG	87-58P8S-4D3	Reference Ass'y No (99-58P05-060)
13	BATTERY S LI 3.4AH FOR SMP/PANASONIC	87-58P8S-4C1	Reference Ass'y No (99-58P05-060)
14	PRODUCT LABEL(TUV) 5800D	45-58D03-010	
15	AUDIO DJ JOGDIAL MODULE+POWER BUTTON+SCREW+BOARD MODULE 5800D	42-58P78-A00	Reference Ass'y No (99-58P05-110)
16	BOTTOM CASE+SHIELDING PLATE MODULE	39-58P03-012	
17	RUBBER PAD H=7mm (BACK)	47-56223-020	
18	FDD ASS'Y 5600P	79-58P2J-010	Reference Ass'y No (99-58P05-040)
18	CD-ROM ASS'Y 5600P	79-58P2Z-010	Reference Ass'y No (99-58P05-050)
18	DVD ROM ASS'Y 5600P	79-58P2V-020	Reference Ass'y No (99-58P05-070)
19	DC/DC BOARD	77-56P0C-D0X	
20	HEX H=16MM M=M2.5 F=M2.5	34-56P03-010	
21	COSMETIC COVER (METAL)	33-56P03-030	
22	HDD CONVERTER BOARD	77-5600N-D0X	
23	W/O HDD ASS'Y 5600P	79-56P21-010	
24	CD-RW ASS'Y 5600P	79-58P2W-010	Reference Ass'y No (99-58P05-080)
24	COMBO ASS'Y 5600P	79-58P2X-010	Reference Ass'y No (99-58P05-090)
25	HEATSINK FOR PCMCIA	31-56P0N-020	
26	EMI GASKET(L18*W9*H3.5MM)	47-00190-181	
27	FFC CABLE FOR AUDIO DJ MODULE	43-56P08-010	

LCD 15” (5800D)

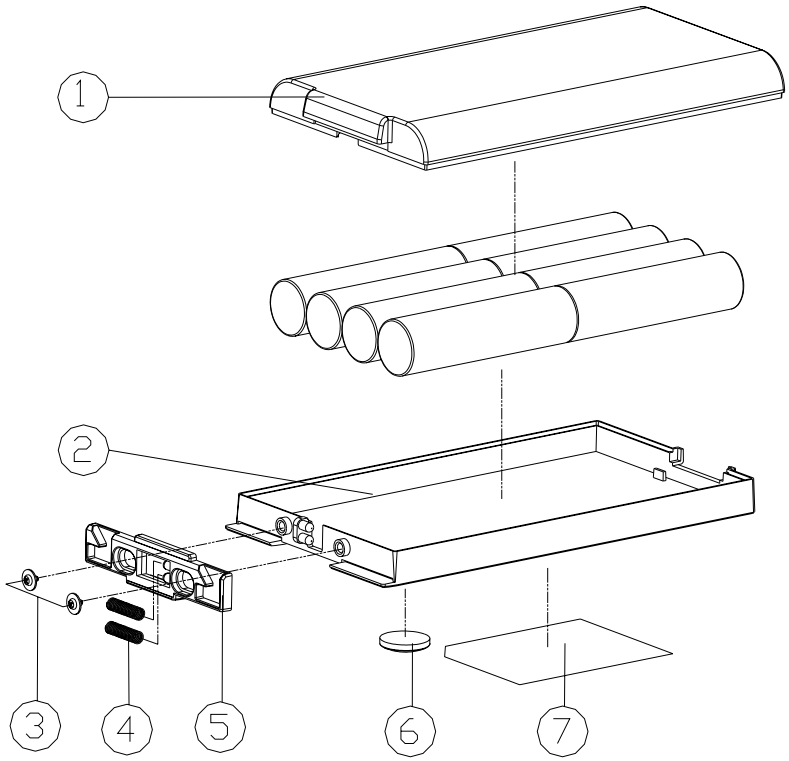


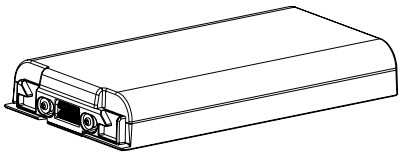
ITEM	PART NAME	PART NO	REMARK
1	RUBBER FOR LCD (MIDDLE)	47-56221-030	
2	RUBBER FOR LCD (TOP)	47-56232-010	
3	SCREW M2*6L P N1 ICT NY	35-01120-6RA	
4	LCD FRONT PANEL MODULE(15.1")	39-58P01-013	
5	LCD 15.0" QXGA TFT IBT IAQX10N 2048*1536 7.2mm	50-L6272-E01	
6	LCD BRACKET (LEFT SANYO-CPT 15.1")	33-56P01-040	
7	SCREW M2*3L K1 NI ICT NY	35-B1120-3RA	
8	SCREW M3*0.5P*4L K1 NI ICT NY	35-B1130-4R0	
9	SCREW M3*0.5*7L K1 NI ICT NY	35-B1130-7R0	
10	SPRING FOR HOOK (Ø3.7*15*0.3ø)	38-21P30-011	
11	HOOK KNOB	42-58P81-011	
12	2.4GHZ DIPOLE ANTENNA OD:1.32MM L=RIGH+LEFT	23-712R4-002	
13	BACK PANEL MODULE	39-58P01-024	
14	NAMEPLATE BASE	42-58P03-010	
15	LCD BACK COVER LABEL	43-4200R-010	
16	WIRE CABLE FOR INVERTER	43-56P0R-011	
17	INVERTER BOARD	77-4200R-D02-1	
18	LCD COAXIAL CABLE FOR IBM QXGA	43-56P01-070	
19	LCD BRACKET(RIGHT SANYO-CPT 15.1")	33-56P01-030	
20	RUBBER FOR LCD (BOTTOM)	47-56233-010	

Figure 1 - 25
LCD 15”
(5800D)

Battery (5800D)

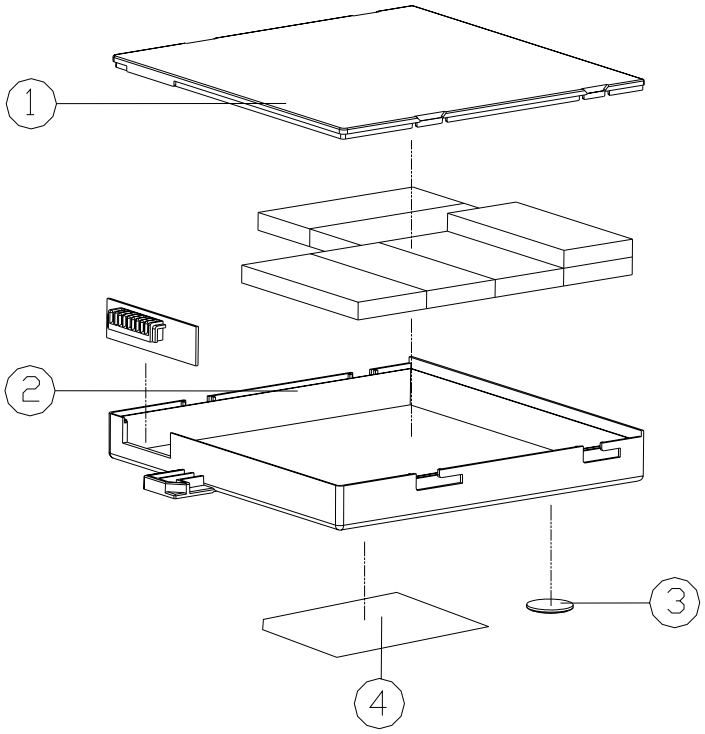
Figure 1 - 26
Battery (5800D)

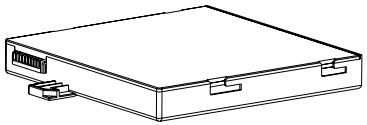




ITEM	PART NAME	PART NO	REMARK
1	BATTERY TOP CASE	42-58P7M-010	
2	BATTERY BOTTOM CASE	42-58P7M-020	
3	SCREW M2*2.5L P NI ICT W/WASHER	35-01020-2RE	
4	SPRING	38-5600M-010	
5	BATTERY LOCK KNOB	42-58P8M-010	
6	RUBBER PAN H=4mm	47-56223-040	
7	BATTERY LABEL	87-58P8S-4D3	

Second Battery (5800D)



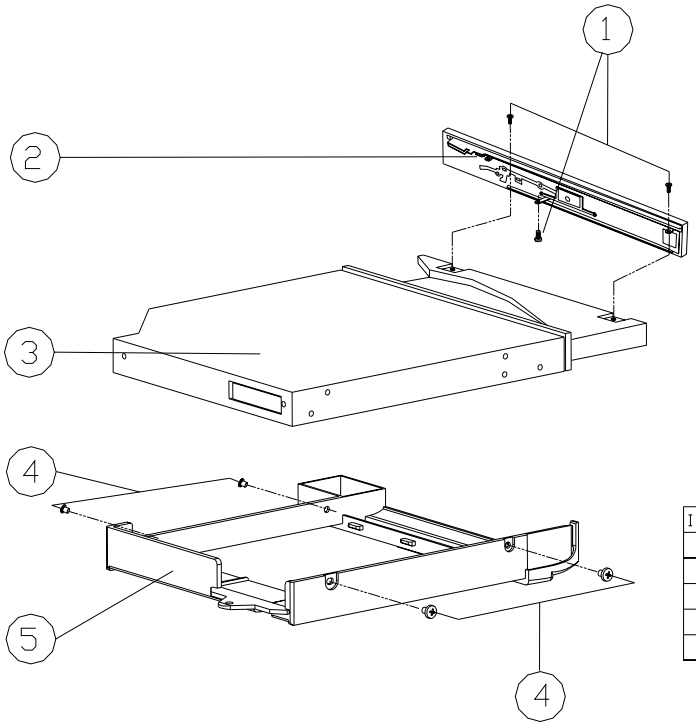


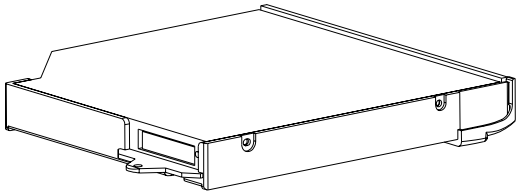
ITEM	PART NAME	PART NO	REMARK
1	SECOND BATTERY TOP COVER	42-58P7M-031	
2	SECOND BATTERY BOTTOM CASE	42-58P7M-041	
3	RUBBER PAN H=4mm	47-56223-040	
4	BATTERY LABEL	87-58P8S-4C1	

Figure 1 - 27
Second Battery (5800D)

TEAC CD-ROM Drive (5800D)

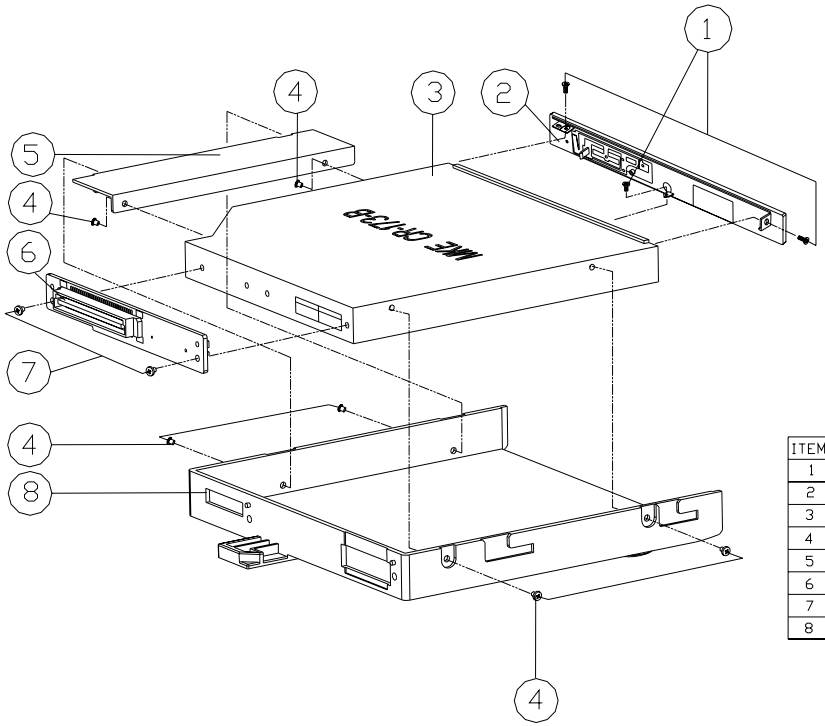
Figure 1 - 28
TEAC CD_ROM Drive (5800D)

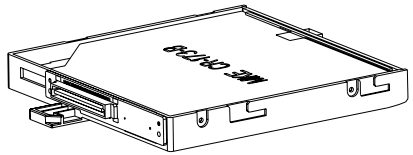




ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*5L K1 BK/O TAP	35-B4920-5R0	
2	CD-ROM BEZEL MODULE FOR TEAC	42-58P7Z-100	
3	CD-ROM 5 1/4" 24X 12.7mm	85-6070X-706	CD-224E-B20
4	SCREW M2*2.5L K NI ICT NY	35-81120-2R5	
5	CD & DVD ROM CASE	42-58P7Z-010	

KME CD-RW Drive (5800D)



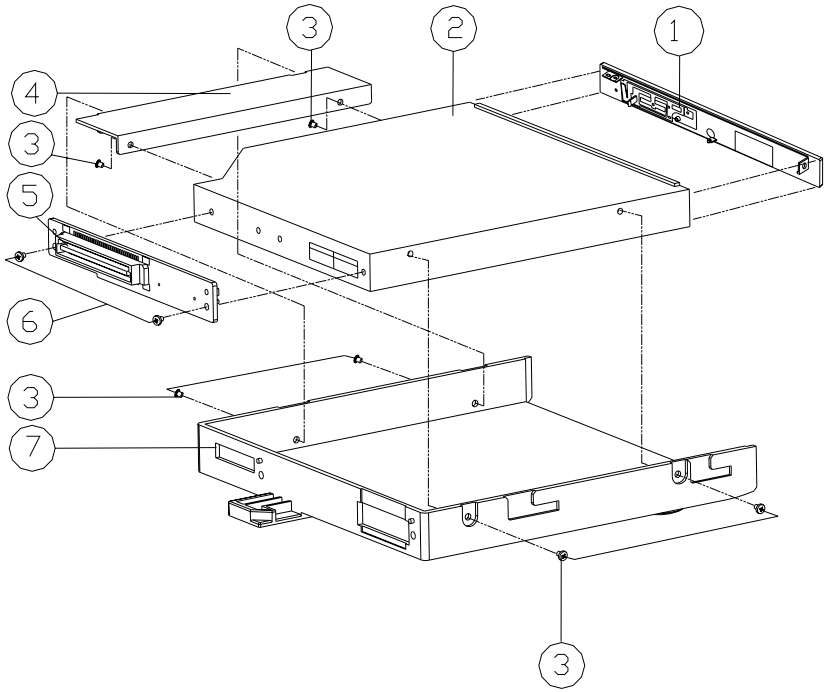


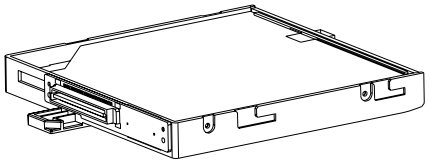
ITEM	PART NAME	PART NO	REMARK
1	SCREW M1.7*3.5L K BZ TAP	35-86717-3R5	
2	CD-RW BEZEL MODULE KME(5600 COLOR)	42-58P7W-100	
3	CD-R/W 5 1/4" 8X 12.7mm	85-8078X-K00	UJDA330CL-Z KME
4	SCREW M2*2.5L K NI ICT NY	35-81120-2R5	
5	CD-RW BRACKET 5600P	33-56P0W-010	
6	CD-RW CONVERTER BOARD	77-5600Z-D0X	
7	SCREW M2*5L K NI NY(d=3.5 t=0.8)	35-81120-5R0	
8	CD RW CASE MODULE	42-58P7W-110	

Figure 1 - 29
KME CD-RW Drive (5800D)

Combo Drive (5800D)

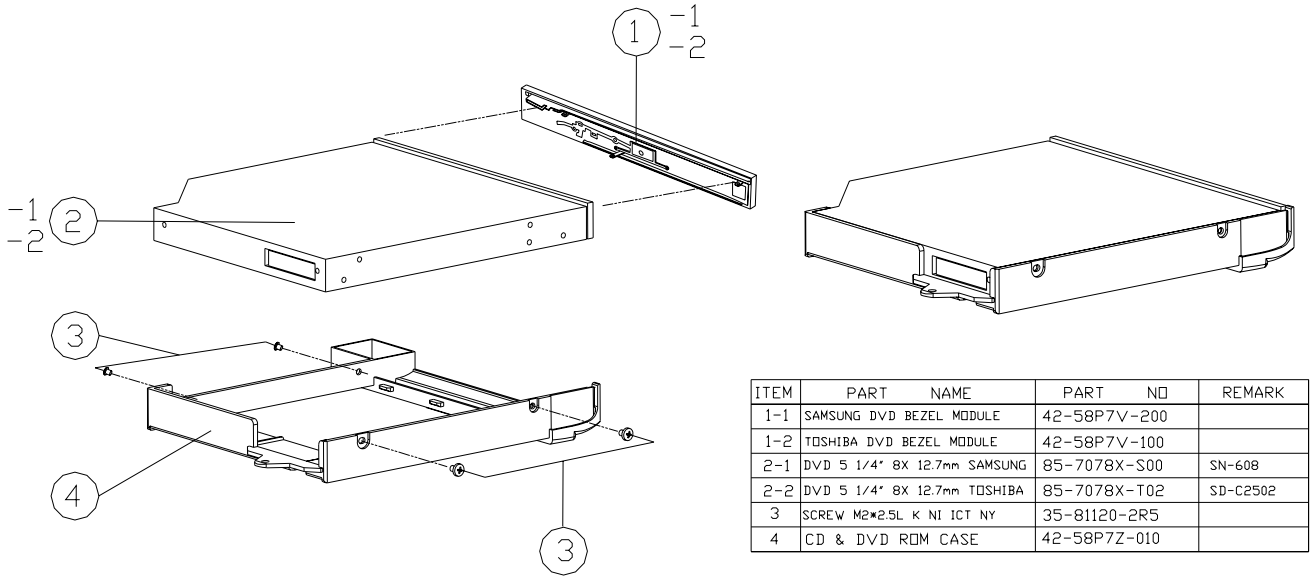
Figure 1 - 30
Combo Drive (5800D)





ITEM	PART NAME	PART NO	REMARK
1	SAMSUNG COMBO BEZEL MODULE	42-58P7X-100	
2	CD-RW/DVD 5 1/4" 8X 12.7mm	85-9078X-S00	SN-308B SAMSUNG
3	SCREW M2*2.5L K NI ICT NY	35-81120-2R5	
4	CD-RW BRACKET 5600P	33-56P0W-010	
5	CD-RW CONVERTER BOARD	77-5600Z-D0X	
6	SCREW M2*5L K NI NY(d=3.5 t=0.8)	35-81120-5R0	
7	CD RW CASE MODULE	42-58P7W-110	

DVD-ROM Drive (5800D)

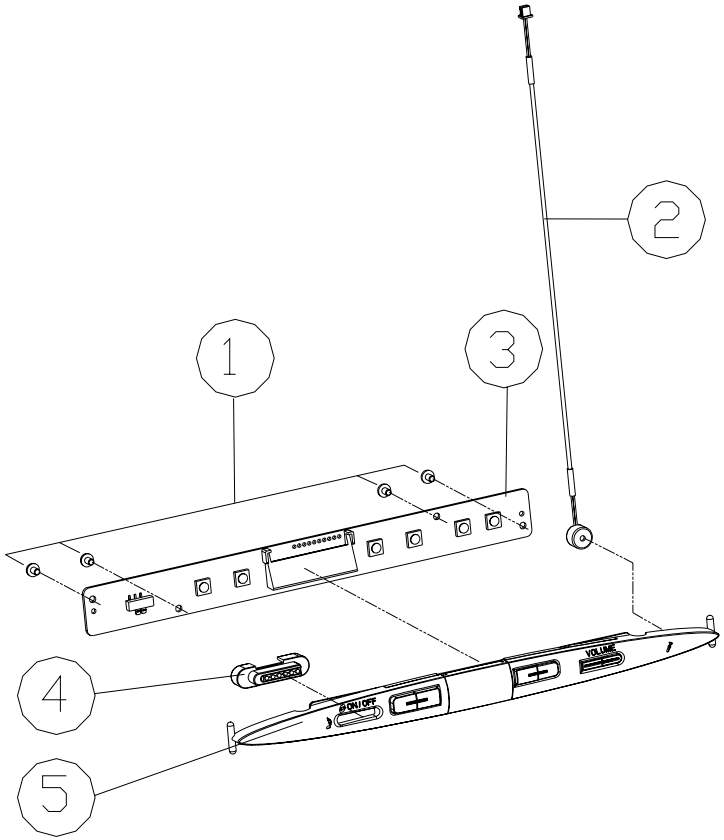


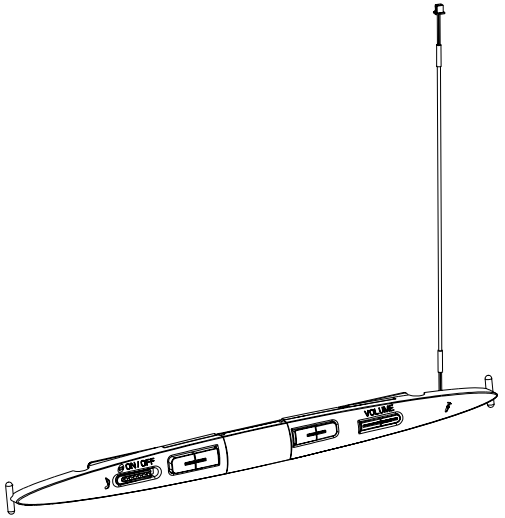
ITEM	PART NAME	PART NO	REMARK
1-1	SAMSUNG DVD BEZEL MODULE	42-58P7V-200	
1-2	TOSHIBA DVD BEZEL MODULE	42-58P7V-100	
2-1	DVD 5 1/4" 8X 12.7mm SAMSUNG	85-7078X-S00	SN-608
2-2	DVD 5 1/4" 8X 12.7mm TOSHIBA	85-7078X-T02	SD-C2502
3	SCREW M2*2.5L K NI ICT NY	35-81120-2R5	
4	CD & DVD ROM CASE	42-58P7Z-010	

Figure 1 - 31
DVD-ROM Drive (5800D)

Audio DJ (5800D)

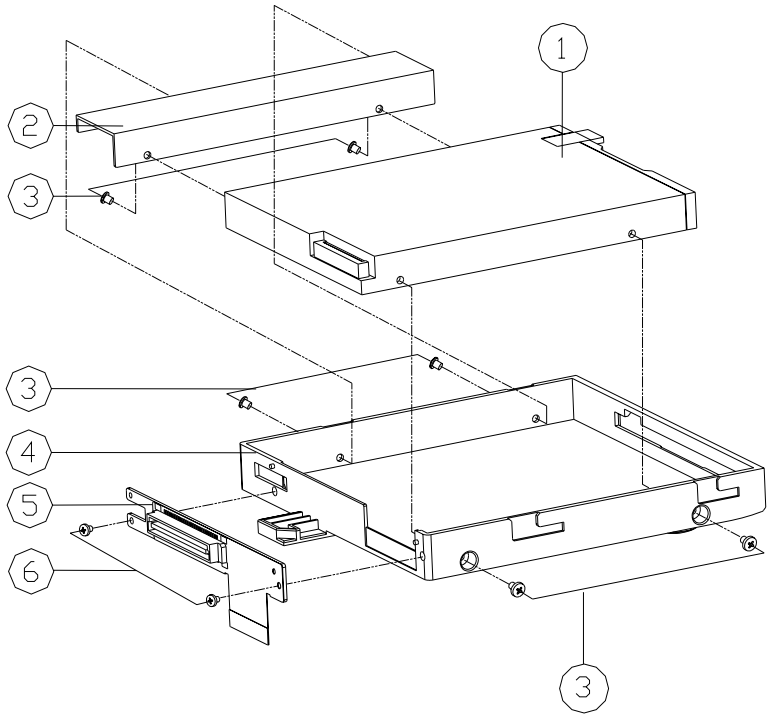
Figure 1 - 32
Audio DJ (5800D)

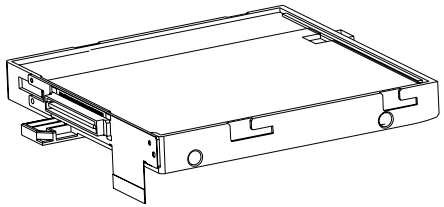




ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*3L K1 NI ICT NY	35-B1120-3RA	
2	WIRE CABLE FOR MICROPHONE ASSEMBLY	43-5600T-010	
3	AUDIO DJ BOARD	77-5600Y-D0X	
4	POWER BUTTON FOR AUDIO DJ	42-58P82-010	
5	AUDIO DJ MODULE	42-58P78-100	

Floppy Disk Drive (5800D)



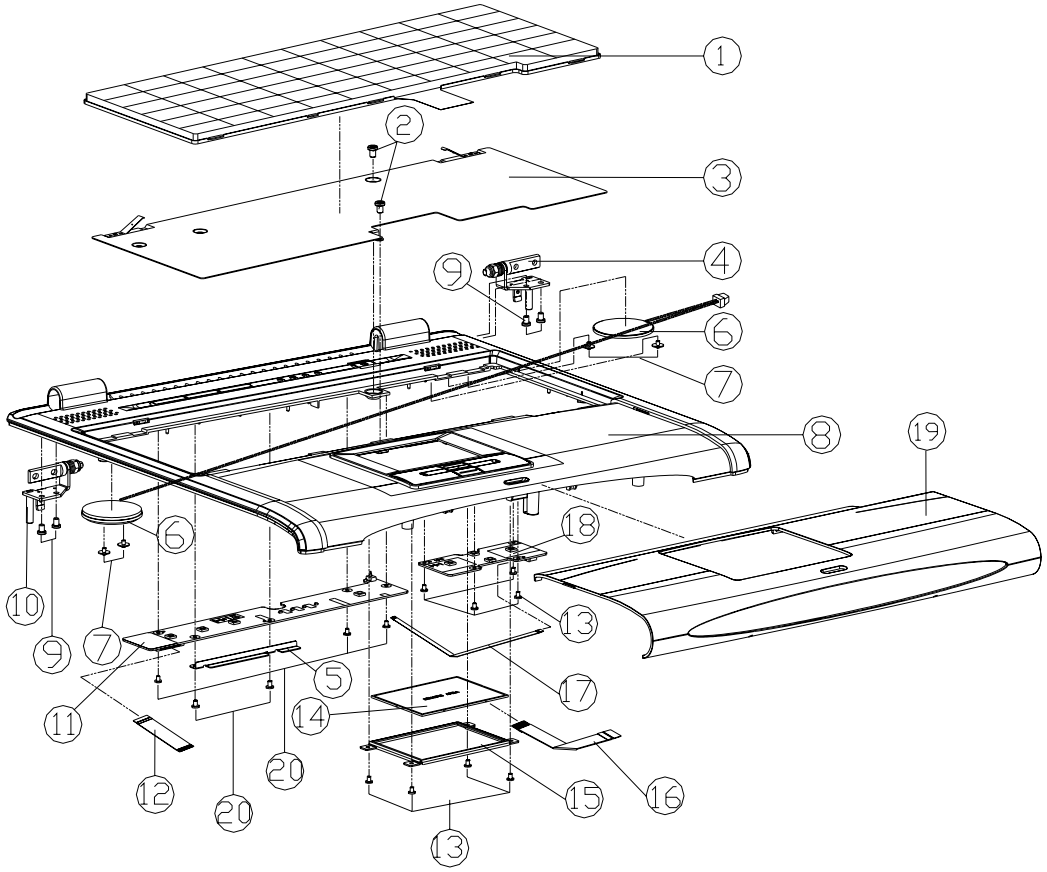


ITEM	PART NAME	PART NO	REMARK
1	3.5" FDD 12.7mm Y-E DATA	85-11700-Y01	YD-702J-6637J
2	FDD BRACKET 5600P	33-56P0J-010	
3	SCREW M2.5*4L K1 BK/□ ICT NY	35-B4125-4RA	
4	FDD CASE MODULE	42-58P7J-100	
5	FPC CABLE MODULE FOR FDD ADAPTOR	43-5600J-010	
6	SCREW M2*4L K1 NI ICT NY	35-B1120-4RA	

Figure 1 - 33
Floppy Disk Drive (5800D)

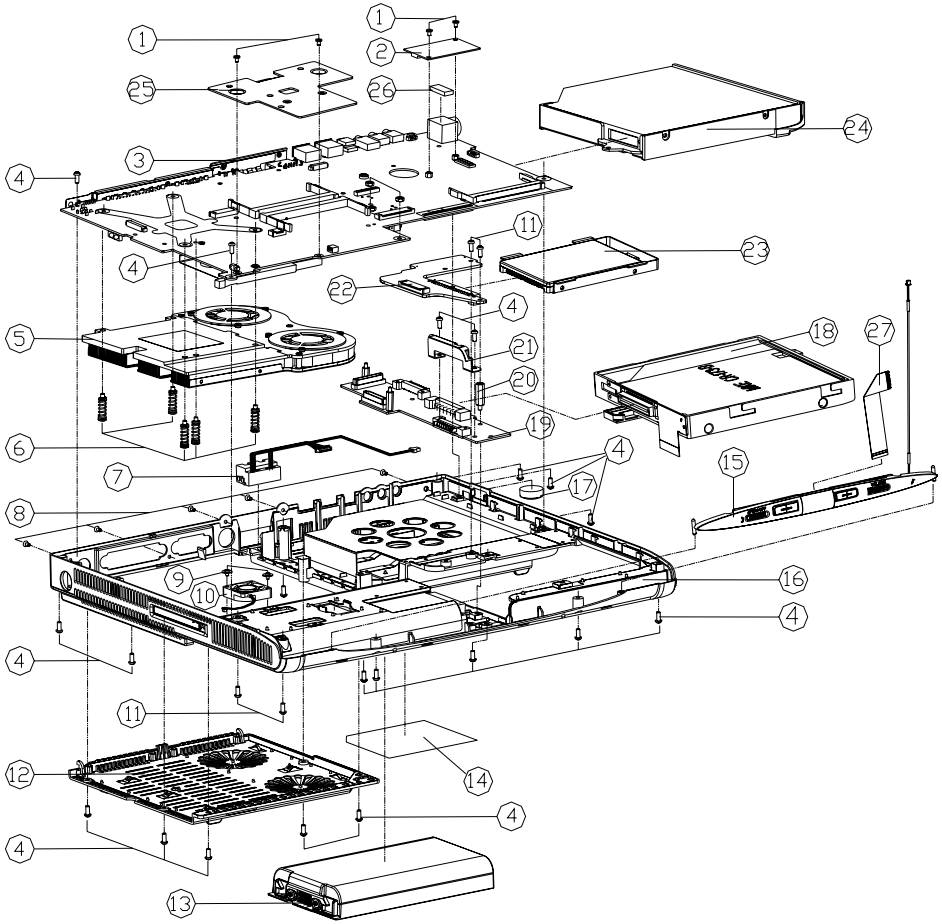
Top (5820D)

Figure 1 - 34
Top (5820D)



ITEM	PART NAME	PART NO	REMARK
1	KEYBOARD	80-56P08-7G0	
2	SCREW M2.5*6L P BZ ICT NY	35-06125-6RA	
3	SHIELDING FOR KEYBOARD	33-56P07-010	
4	HINGE (RIGHT)	33-56P01-070	
5	FIXED BRACKET FOR CABLE	33-56P03-060	
6	SPEAKER W/CABLE	23-53610-281	
7	SCREW M2*2.5L P NI ICT NY W/WASHER	35-01020-2RE	
8	TOP CASE MODULE	39-58202-010	
9	M3*0.5P*4L K1 NI ICT NY	35-B1130-4R0	
10	HINGE (LEFT)	33-56P01-080	
11	LED BOARD	77-56P04-D0X	
12	FFC CABLE FOR LED&HOTKEY	43-56P02-020	
13	SCREW M2*3L K1 NI ICT NY	35-B1120-3RA	
14	TOUCH PAD SYNAPTICS TM41PDG351-1	49-42002-010	
15	TOUCH PAD BRACKET	33-56P02-050	
16	FFC CABLE FOR TOUCH PAD	43-56P02-010	
17	FFC CABLE FOR CLICK	43-56P03-010	
18	CLICK BOARD	77-58002-D0X	
19	PALMREST	42-58272-030	

Bottom (5820D)

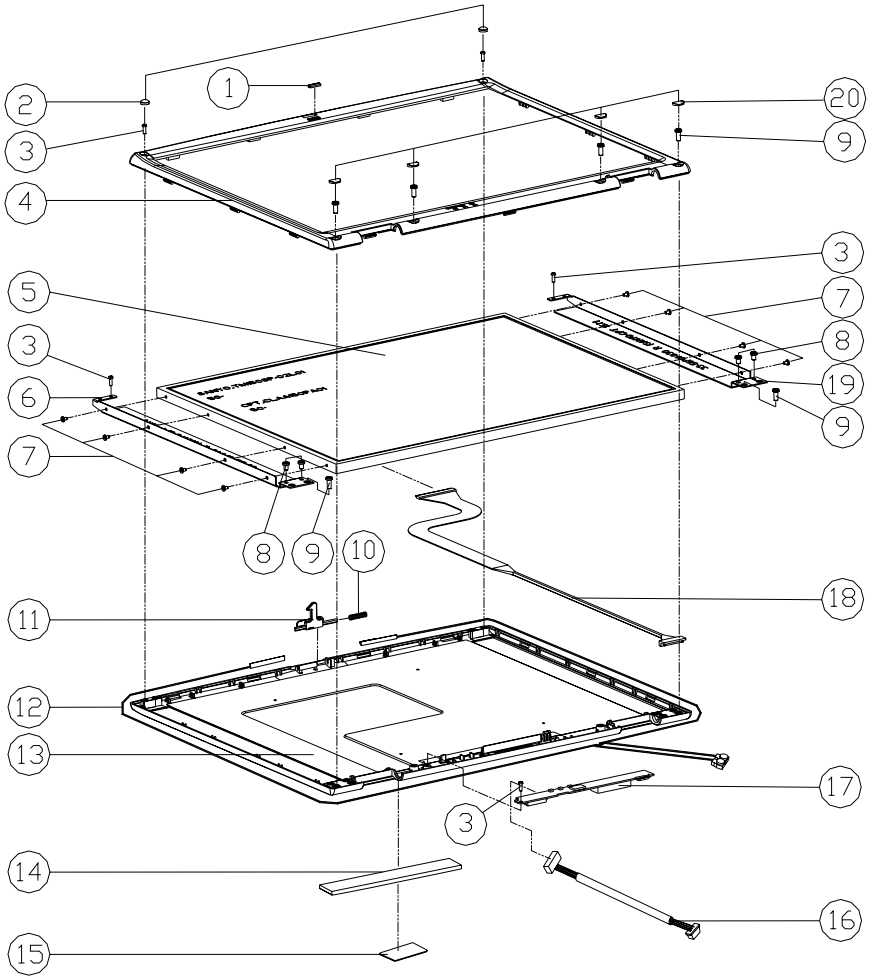


ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*3L K1 NI ICT NY	35-B1120-3RA	
2	MDC MODEM+TEL.CABLE MODULE	76-32200-100	
3	MAIN BOARD	77-56D00-D06-M	
4	SCREW M2.5*6L P BZ ICT NY	35-06125-6RA	
5	CPU HEATSINK MODULE	31-56P0N-101	
6	SCREW	35-41025-175	
7	WIRE CABLE FOR LAN AND MODEM	43-56P0U-010	
8	SCREW M2*4L F NI ICT NY	35-21120-4RA	
9	SCREW M2*2.5L P NI ICT NY W/WASHER	35-01020-2RE	
10	FAN 25*25*6.5T 5V 0.09A CON.	23-A2514-050	
11	SCREW M2.5*4L K1 BK/D ICT NY	35-B4125-4RA	
12	CPU COVER & SHIELDING PLATE MODULE P4	42-56P7S-100	
13	BATTERY S LI 4.0AH FOR SMP/SAMSUNG	87-58P8S-4D3	Reference Ass'y Dwg (99-58P05-060)
13	BATTERY S LI 3.4AH FOR SMP/PANASONIC	87-58P8S-4C1	
14	PRODUCT LABEL(TUV) 5820D	45-582D3-010	
15	AUDIO DJ BEZEL MODULE+POWER BUTTON+VOICE+BOARD MODULE 5620	42-58278-A00	Reference Ass'y Dwg (99-58P05-110)
16	BOTTOM CASE+SHIELDING PLATE MODULE	39-56P03-012	
17	RUBBER PAD H=7mm (BACK)	47-56P23-020	
18	FDD ASS'Y 5600P	79-56P2J-010	Reference Ass'y Dwg (99-56P05-040)
18	CD-ROM ASS'Y 5600P	79-56P2Z-010	Reference Ass'y Dwg (99-56P05-050)
18	DVD ROM ASS'Y 5600P	79-56P2V-020	Reference Ass'y Dwg (99-56P05-070)
19	DC/DC BOARD	77-56P0C-D0X	
20	HEX H=16MM M=M2.5 F=M2.5	34-56P03-010	
21	COSMETIC COVER (METAL)	33-56P03-030	
22	HDD CONVERTER BOARD	77-5600N-D0X	
23	W/O HDD ASS'Y 5600P	79-56P21-010	
24	CD-RW ASS'Y 5600P	79-56P2W-010	Reference Ass'y Dwg (99-56P05-080)
24	COMBO ASS'Y 5600P	79-56P2X-010	Reference Ass'y Dwg (99-56P05-090)
25	HEATSINK FOR PCMCIA	31-56P0N-020	
26	EMI GASKET(L18*W9*H3.5MM)	47-00190-181	
27	FFC CABLE FOR AUDIO DJ MODULE	43-56P08-010	

Figure 1 - 35
Bottom (5820D)

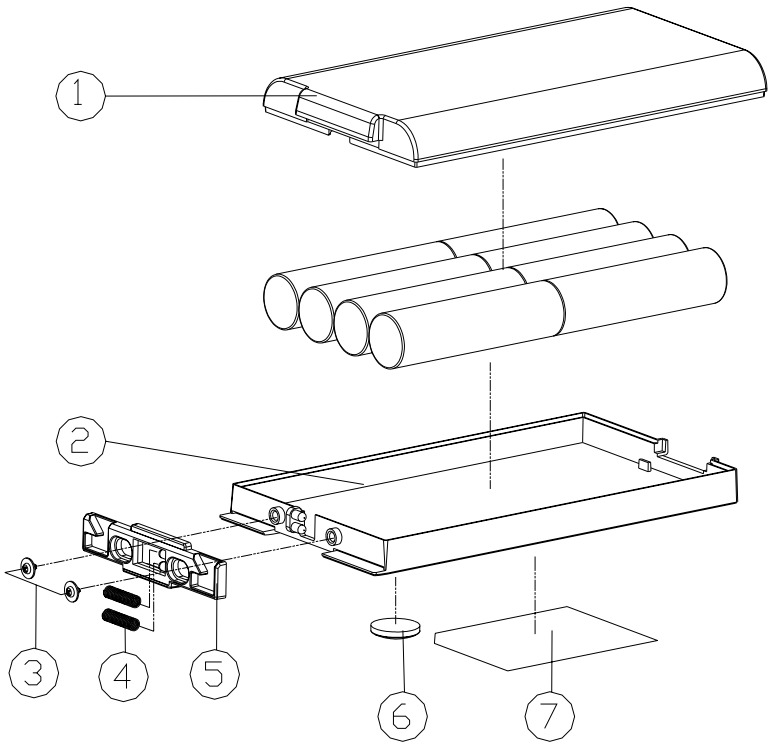
LCD 15” (5820D)

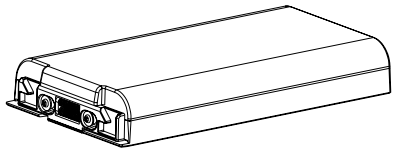
Figure 1 - 36
LCD 15”
(5820D)



ITEM	PART NAME	PART NO	REMARK
1	RUBBER FOR LCD (MIDDLE)	47-56P21-030	
2	RUBBER FOR LCD (TOP)	47-56P32-010	
3	SCREW M2*6L P NI ICT NY	35-01120-6RA	
4	LCD FRONT PANEL MODULE(15.1")	39-56P01-013	
5	LCD 15.0" QXGA TFT IDT IAQX 10N 2048*1536 7.2mm	50-L6272-E01	
6	LCD BRACKET (LEFT SANYO-CPT 15.1")	33-56P01-040	
7	SCREW M2*3L K1 NI ICT NY	35-B1120-3RA	
8	SCREW M3*0.5P*4L K1 NI ICT NY	35-B1130-4R0	
9	SCREW M3*0.5*7L K1 NI ICT NY	35-B1130-7R0	
10	SPRING FOR HOOK (Ø3.7*15*0.3d)	38-21P30-011	
11	HOOK KNOB	42-56P81-011	
12	2.4GHZ DIPOLE ANTENNA OD1.32MM L=RIGH+LEFT	23-712R4-002	
13	BACK PANEL MODULE	39-58201-024	
14	NAMEPLATE BASE	42-58203-010	
15	NAME PLATE "NOTEBOOK"	45-42001-010	
16	WIRE CABLE FOR INVERTER	43-56P0R-011	
17	INVERTER BOARD	77-4200R-D02-1	
18	LCD CABLE CABLE FOR IBM QXGA	43-56P01-070	
19	LCD BRACKET(RIGHT SANYO-CPT 15.1")	33-56P01-030	
20	RUBBER FOR LCD (BOTTOM)	47-56P33-010	

Battery (5820D)



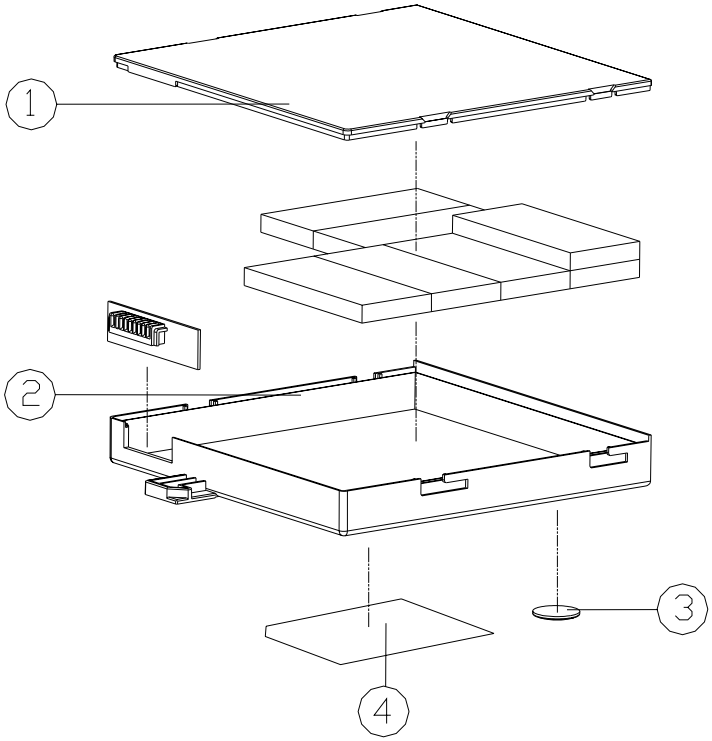


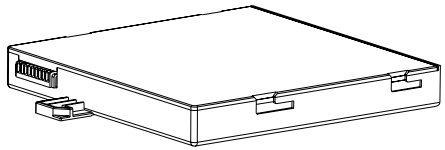
ITEM	PART NAME	PART NO	REMARK
1	BATTERY TOP CASE	42-56P7M-010	
2	BATTERY BOTTOM CASE	42-56P7M-020	
3	SCREW M2*2.5L P NI ICT W/WASHER	35-01020-2RE	
4	SPRING	38-5600M-010	
5	BATTERY LOCK	42-56P8M-010	
6	RUBBER PAN H=4mm	47-56P23-040	
7	BATTERY LABEL	87-56P8S-4D3	
7	BATTERY LABEL	87-56P8S-4E3	

Figure 1 - 37
Battery (5820D)

Second Battery (5820D)

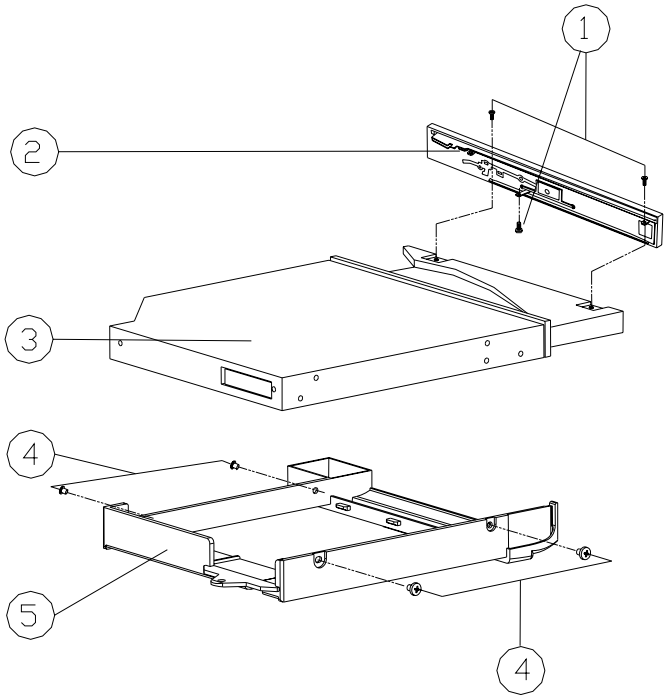
Figure 1 - 38
Second Battery (5820D)

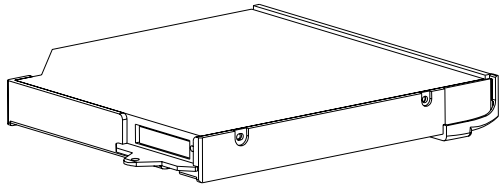




ITEM	PART NAME	PART NO	REMARK
1	SECOND BATTERY TOP COVER	42-56P7M-031	
2	SECOND BATTERY BOTTOM CASE	42-56P7M-041	
3	RUBBER PAN H=4mm	47-56P23-040	
4	BATTERY LABEL	87-56P8S-4C1	
4	BATTERY LABEL	87-56P8S-4E1	

TEAC CD-ROM Drive (5820D)



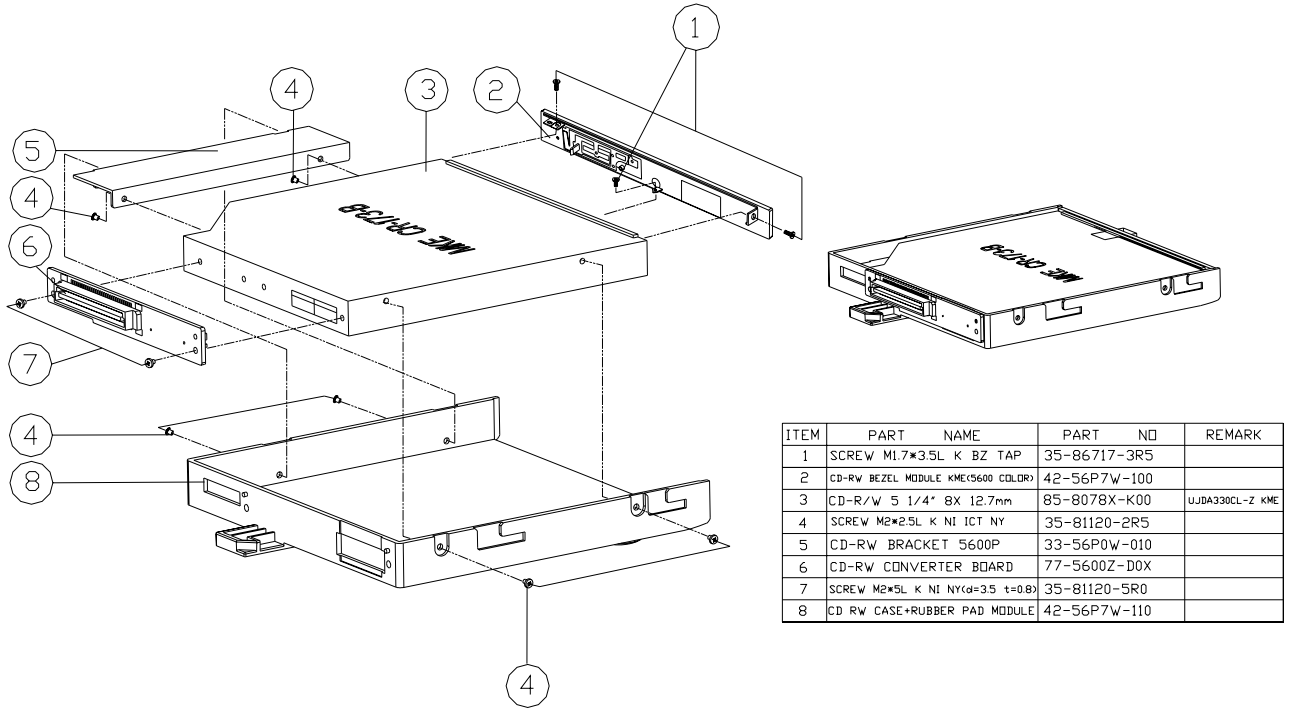


ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*5L K1 BK/□ TAP	35-B4920-5R0	
2	CD-ROM BEZEL MODULE FOR TEAC	42-56P7Z-100	
3	CD-ROM 5 1/4" 24X 12.7mm	85-6070X-706	CD-224E-B20
4	SCREW M2*2.5L K NI ICT NY	35-81120-2R5	
5	CD & DVD ROM CASE	42-5607Z-010	

Figure 1 - 39
CD-ROM TEAC (5820D)

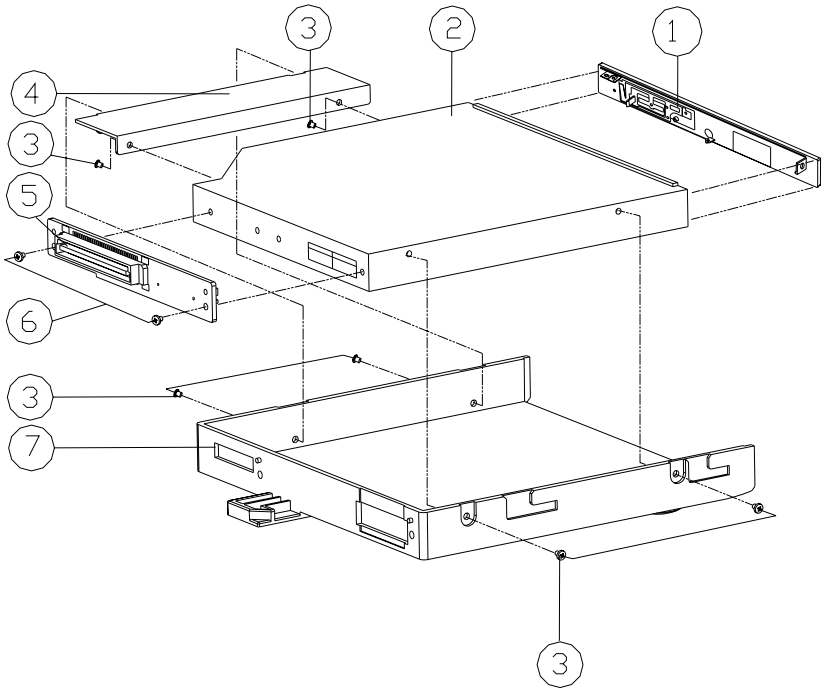
KME CD-RW Drive (5820D)

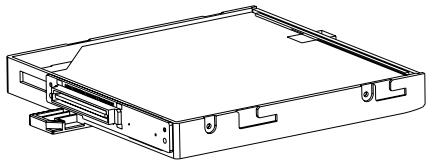
Figure 1 - 40
CD-RW KME (5820D)



ITEM	PART NAME	PART NO	REMARK
1	SCREW M1.7*3.5L K BZ TAP	35-86717-3R5	
2	CD-RW BEZEL MODULE KME(5600 COLOR)	42-56P7W-100	
3	CD-R/W 5 1/4" 8X 12.7mm	85-8078X-K00	UJDA330CL-Z KME
4	SCREW M2*2.5L K NI ICT NY	35-81120-2R5	
5	CD-RW BRACKET 5600P	33-56P0W-010	
6	CD-RW CONVERTER BOARD	77-5600Z-D0X	
7	SCREW M2*5L K NI NY(d=3.5 t=0.8)	35-81120-5R0	
8	CD RW CASE+RUBBER PAD MODULE	42-56P7W-110	

Combo Drive (5820D)



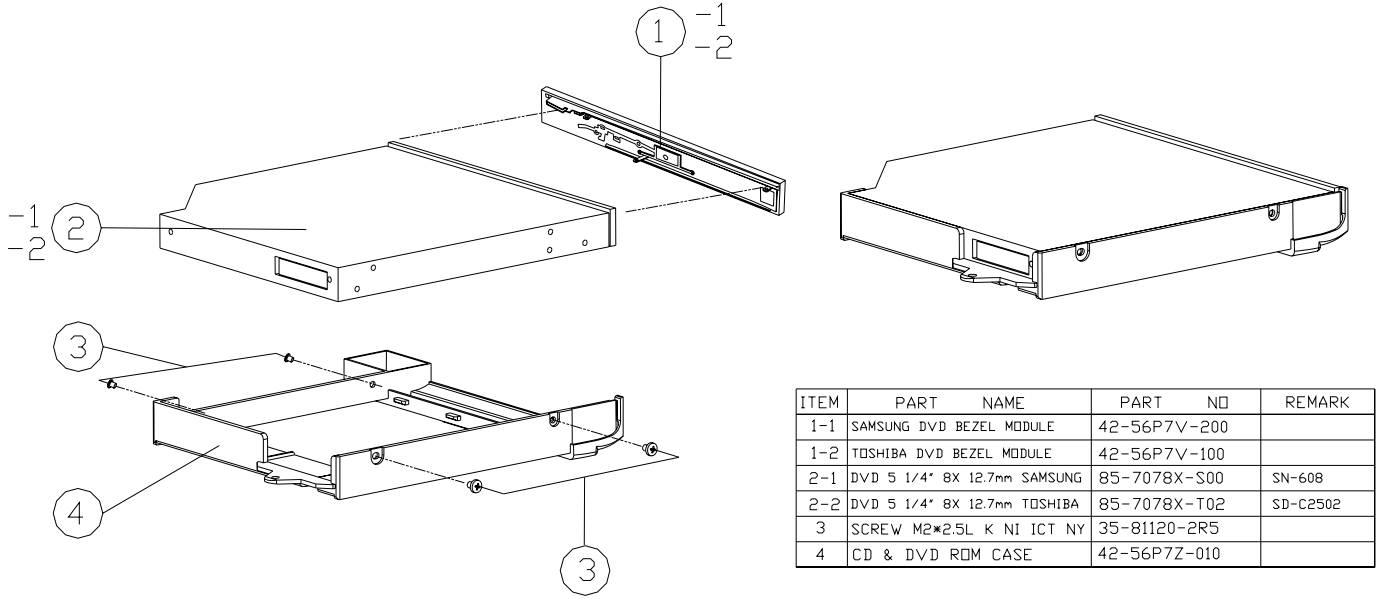


ITEM	PART NAME	PART NO	REMARK
1	SAMSUNG COMBO BEZEL MODULE	42-56P7X-100	
2	CD-RW/DVD 5 1/4" 8X 12.7mm	85-9078X-S00	SN-308B SAMSUNG
3	SCREW M2*2.5L K NI ICT NY	35-81120-2R5	
4	CD-RW BRACKET 5600P	33-56P0W-010	
5	CD-RW CONVERTER BOARD	77-5600Z-D0X	
6	SCREW M2*5L K NI NY(d=3.5 t=0.8)	35-81120-5R0	
7	CD RW CASE+RUBBER PAD MODULE	42-56P7W-110	

Figure 1 - 41
Combo (5820D)

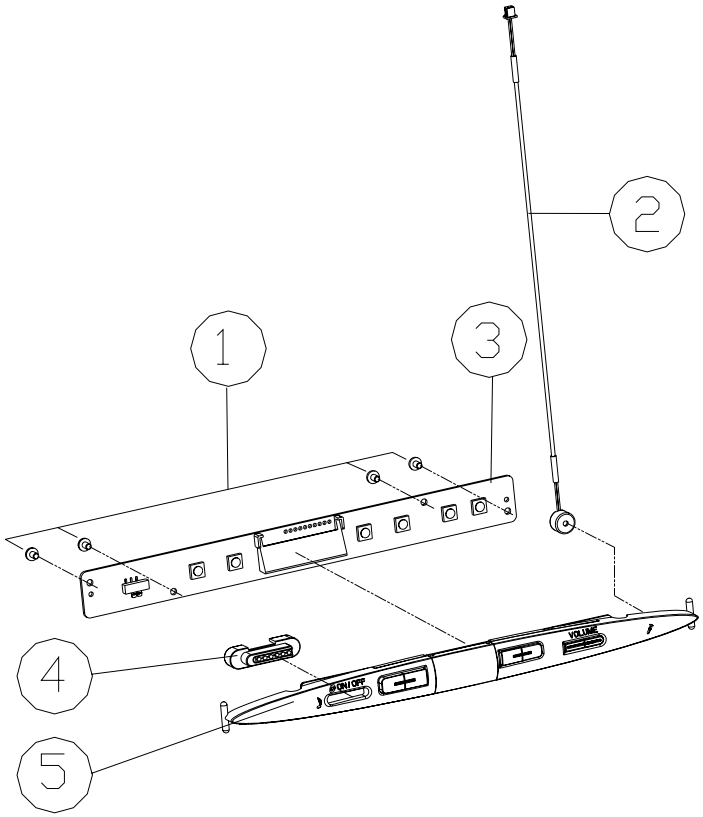
DVD-ROM Drive (5820D)

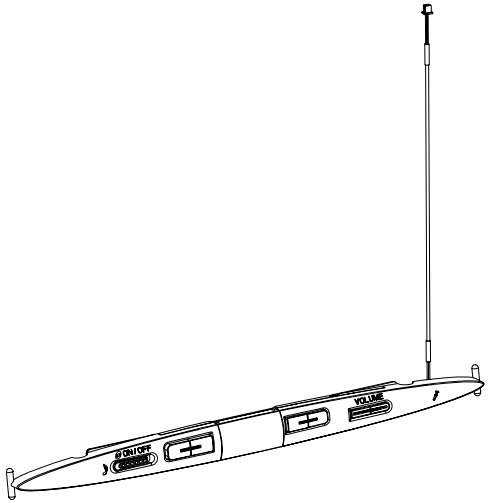
Figure 1 - 42
DVD (5820D)



ITEM	PART NAME	PART NO	REMARK
1-1	SAMSUNG DVD BEZEL MODULE	42-56P7V-200	
1-2	TOSHIBA DVD BEZEL MODULE	42-56P7V-100	
2-1	DVD 5 1/4" 8X 12.7mm SAMSUNG	85-7078X-S00	SN-608
2-2	DVD 5 1/4" 8X 12.7mm TOSHIBA	85-7078X-T02	SD-C2502
3	SCREW M2*2.5L K NI ICT NY	35-81120-2R5	
4	CD & DVD ROM CASE	42-56P7Z-010	

Audio “DJ” (5820D)



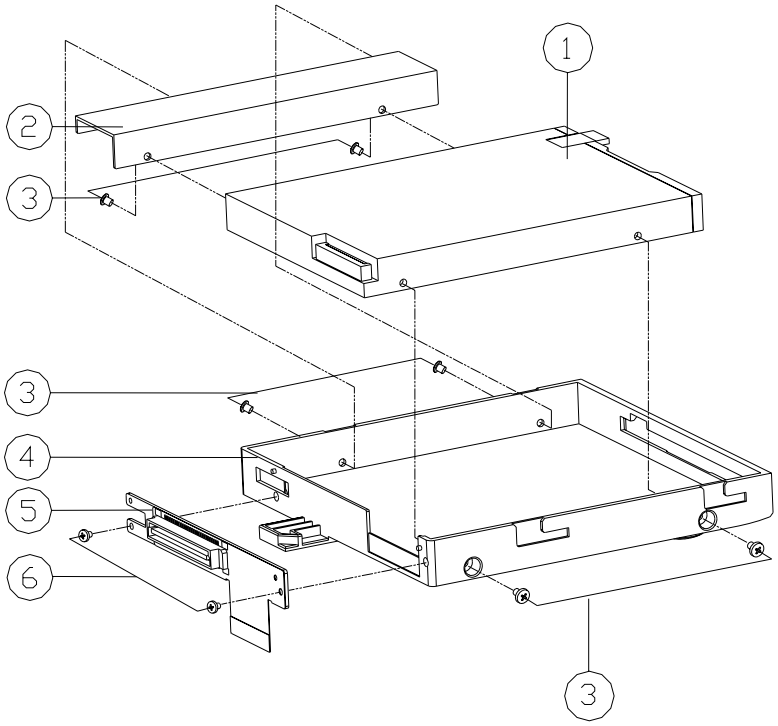


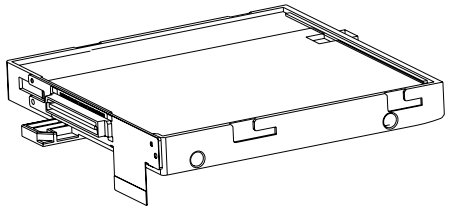
ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*3L K1 NI ICT NY	35-B1120-3RA	
2	WIRE CABLE FOR MICROPHONE ASSEMBLY	43-5600T-010	
3	AUDIO DJ BOARD	77-5600Y-D0X	
4	POWER BUTTON FOR AUDIO DJ	42-58282-010	
5	AUDIO DJ MODULE	42-58278-100	

Figure 1 - 43
Audio “DJ” (5820D)

Floppy Disk Drive (5820D)

Figure 1 - 44
Floppy Disk Drive (5820D)





ITEM	PART NAME	PART NO	REMARK
1	3.5" FDD 12.7mm Y-E DATA	85-11700-Y01	YD-702J-6637J
2	FDD BRACKET 5600P	33-56P0J-010	
3	SCREW M2.5*4L K1 BK/□ ICT NY	35-B4125-4RA	
4	FDD CASE+RUBBER PAD MODULE	42-56P7J-100	
5	FPC CABLE MODULE FOR FDD ADAPTOR	43-5600J-010	
6	SCREW M2*4L K BZ ICT NY	35-86120-4RA	

Appendix B:Schematic Diagrams

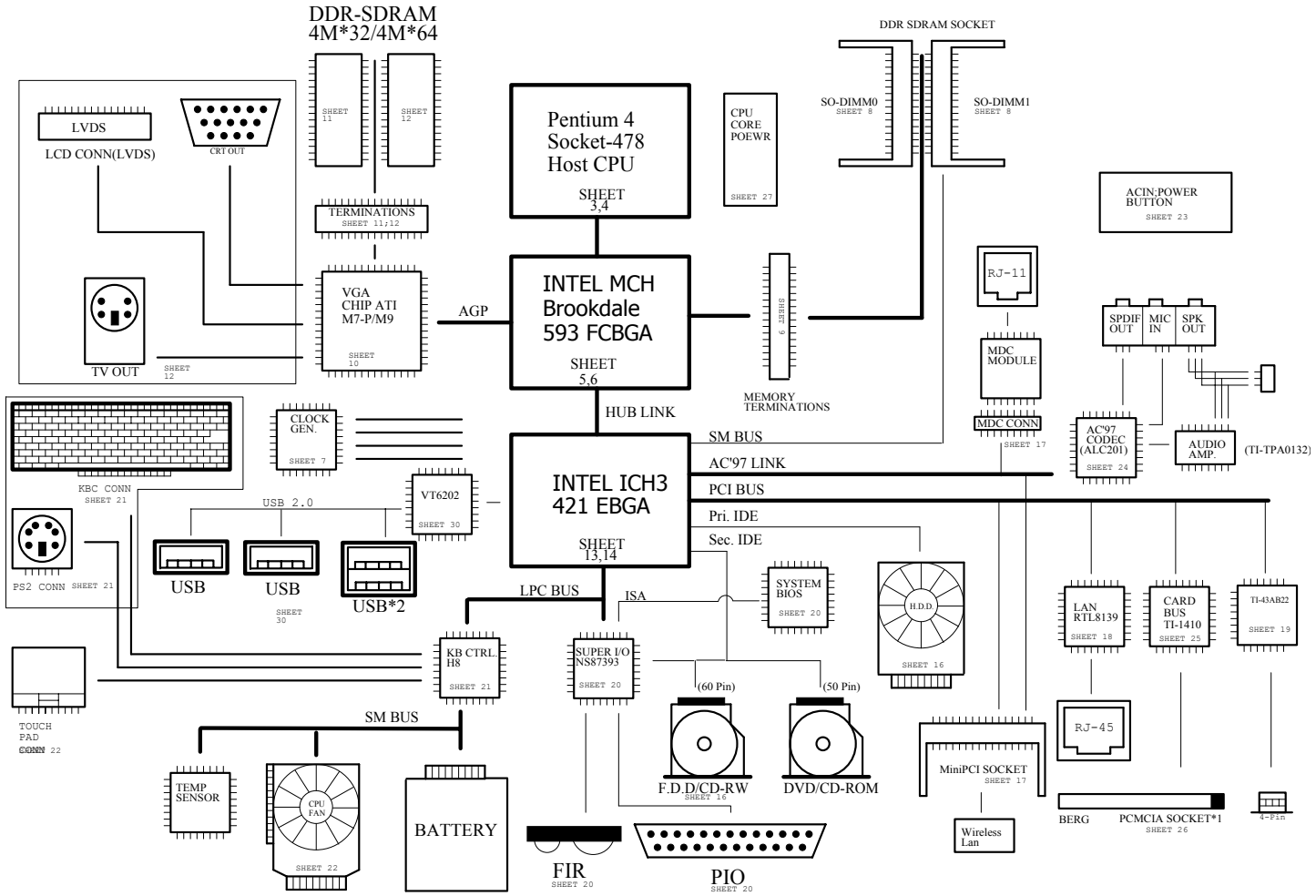
This appendix has circuit diagrams of the systems PCB's. The following table indicates where to find the appropriate schematic diagram.

Table 1
Schematic Diagrams

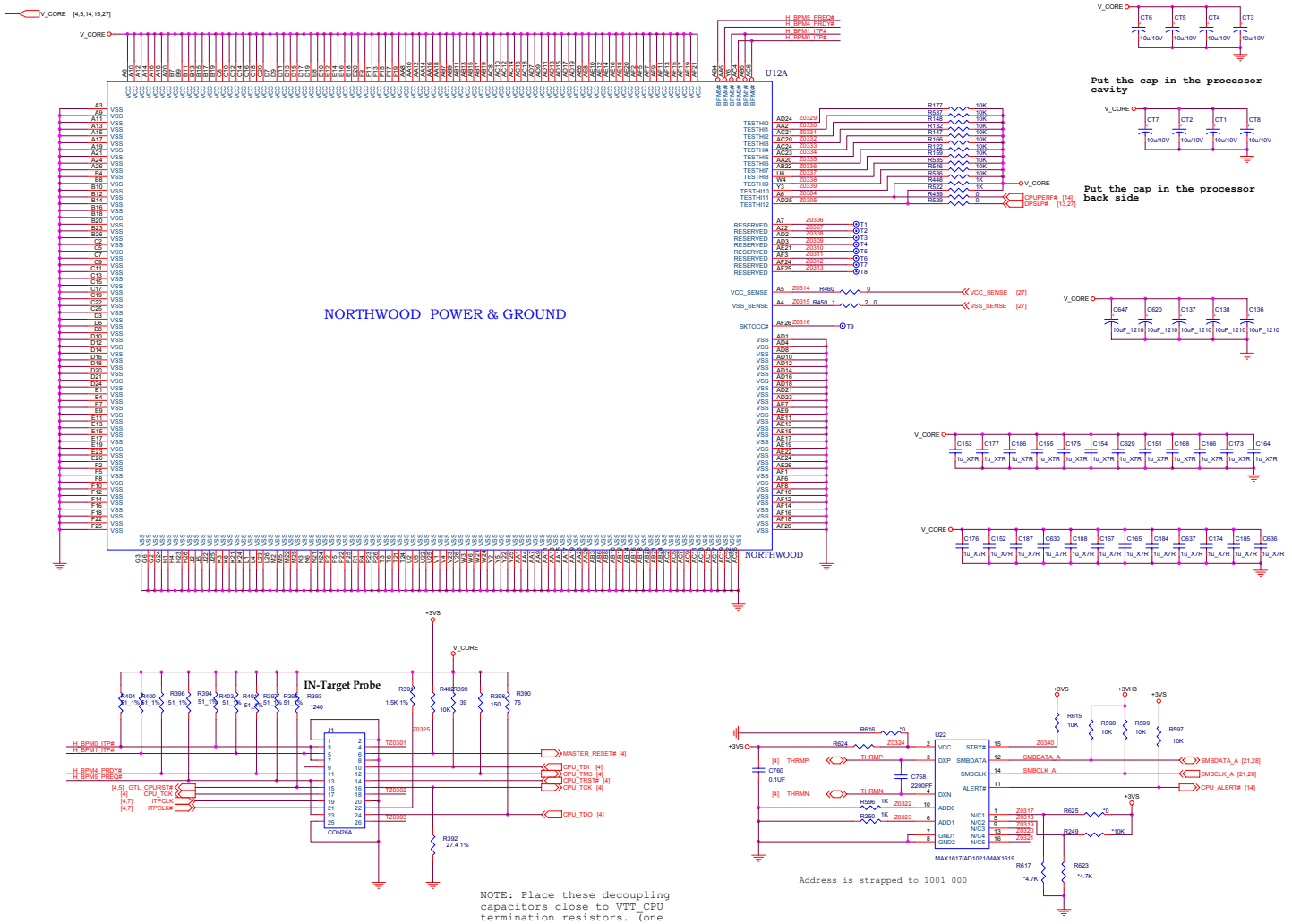
Diagram - Page	Diagram - Page
System Block Diagram - Page B - 2	*Mini PCI; MDC Modem - Page B - 17*
CPU (Northwood) 1 of 2 - Page B - 3	*LAN RTL8139CL - Page B - 18*
CPU (Northwood) 2 of 2 - Page B - 4	*TI1394 TSB43AB22 - Page B - 19*
MCH845 Power & Ground - Page B - 5	*NS-PC87393; IR; ROM - Page B - 20*
MCH845 Memory Interface - Page B - 6	*H8 - Page B - 21*
Clock Generator - Page B - 7	*KBC Conn; Fan Conn - Page B - 22*
DDRAM - Page B - 8	*ACIN; PWR Button - Page B - 23*
DDR Termination - Page B - 9	*AC'97 AD1886 - Page B - 24*
Mobility P7 - Page B - 10	*PCI 1410 - Page B - 25*
Mobility Mem A; Term; LVDS - Page B - 11	*PCMCIA Socket - Page B - 26*
Mobility Mem B; CRT; TV Out - Page B - 12	*CPU Core Power - Page B - 27*
ICH3 (1 of 3) - Page B - 13	*D/D Conn - Page B - 28*
ICH3 (2 of 3) - Page B - 14	*+3V; +5V - Page B - 29*
ICH3 (3 of 3) - Page B - 15	*USB 2.0 - Page B - 30*
HDD/CDROM/FDD - Page B - 16	

System Block Diagram

Sheet 1 of 29
System Block Diagram



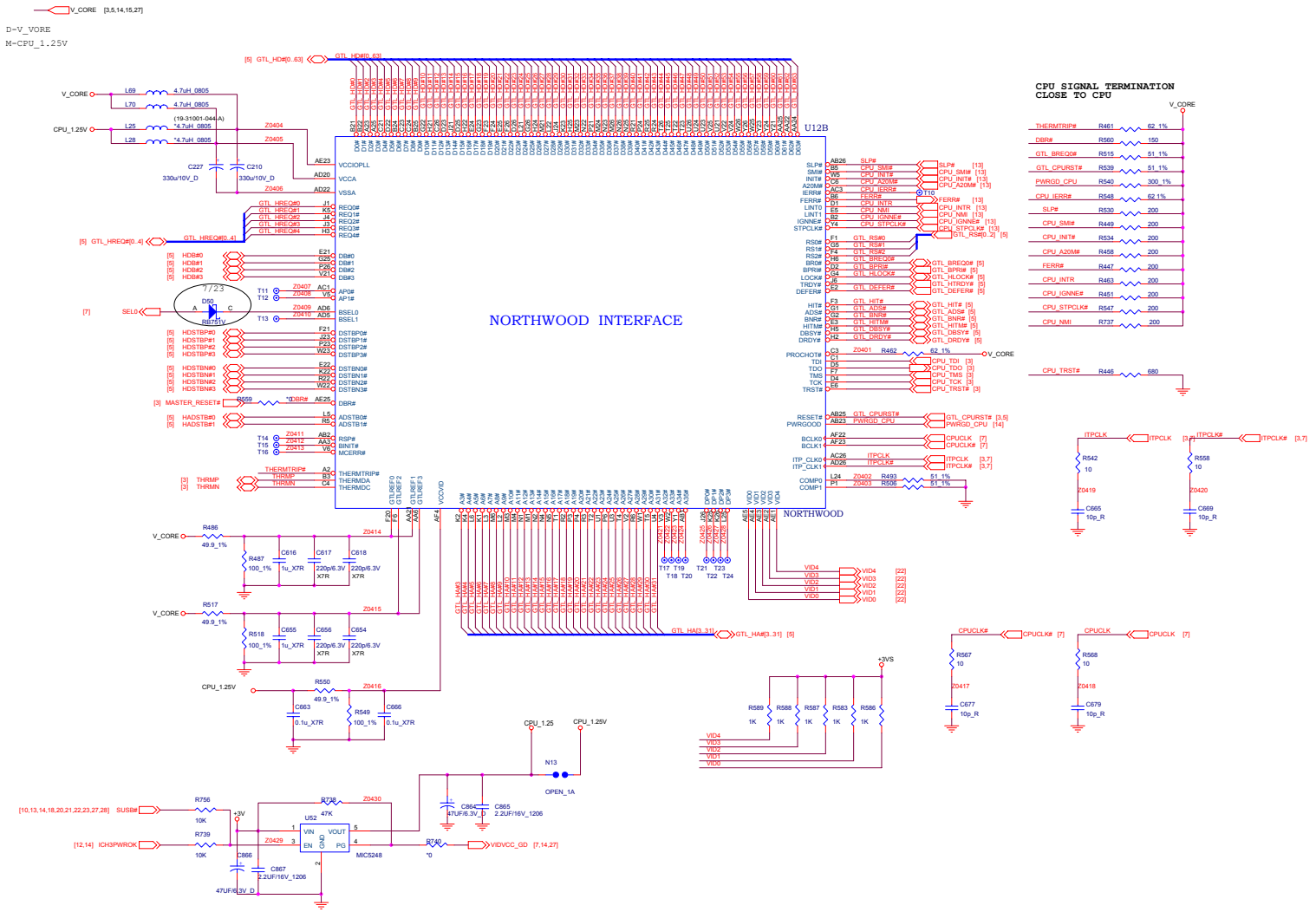
CPU (Northwood) 1 of 2



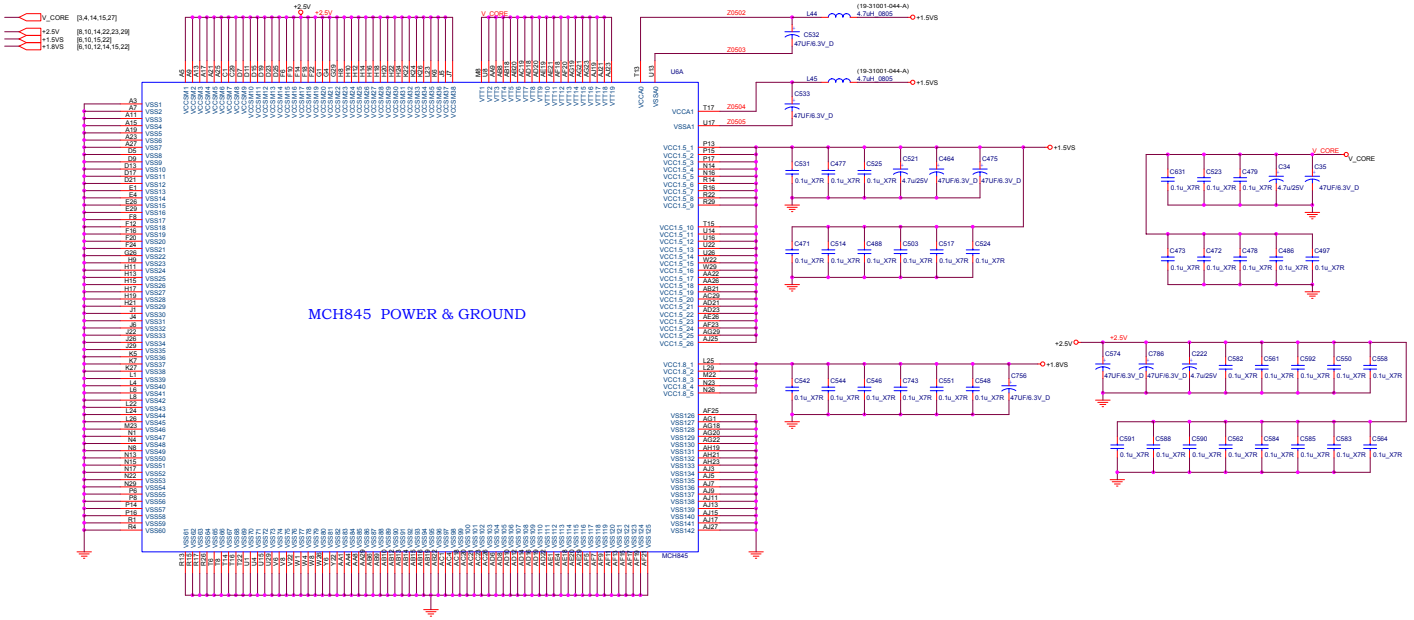
Sheet 2 of 29
CPU 1 of 2

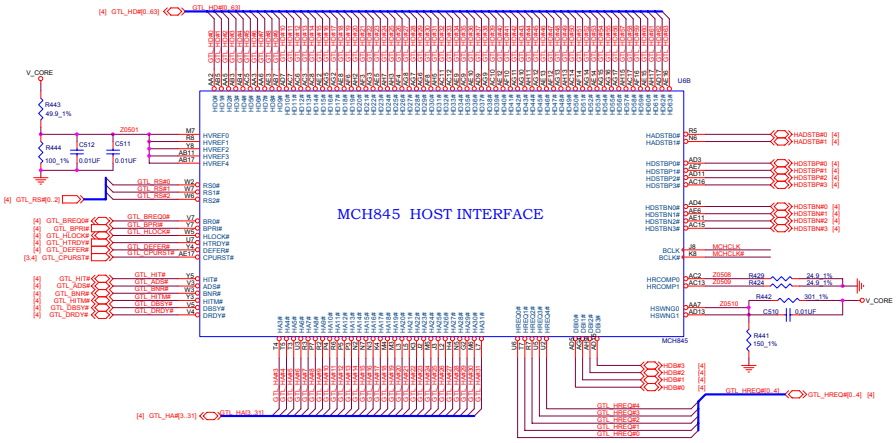
CPU (Northwood) 2 of 2

Sheet 3 of 29
CPU 2 of 2



MCH845 Power & Ground

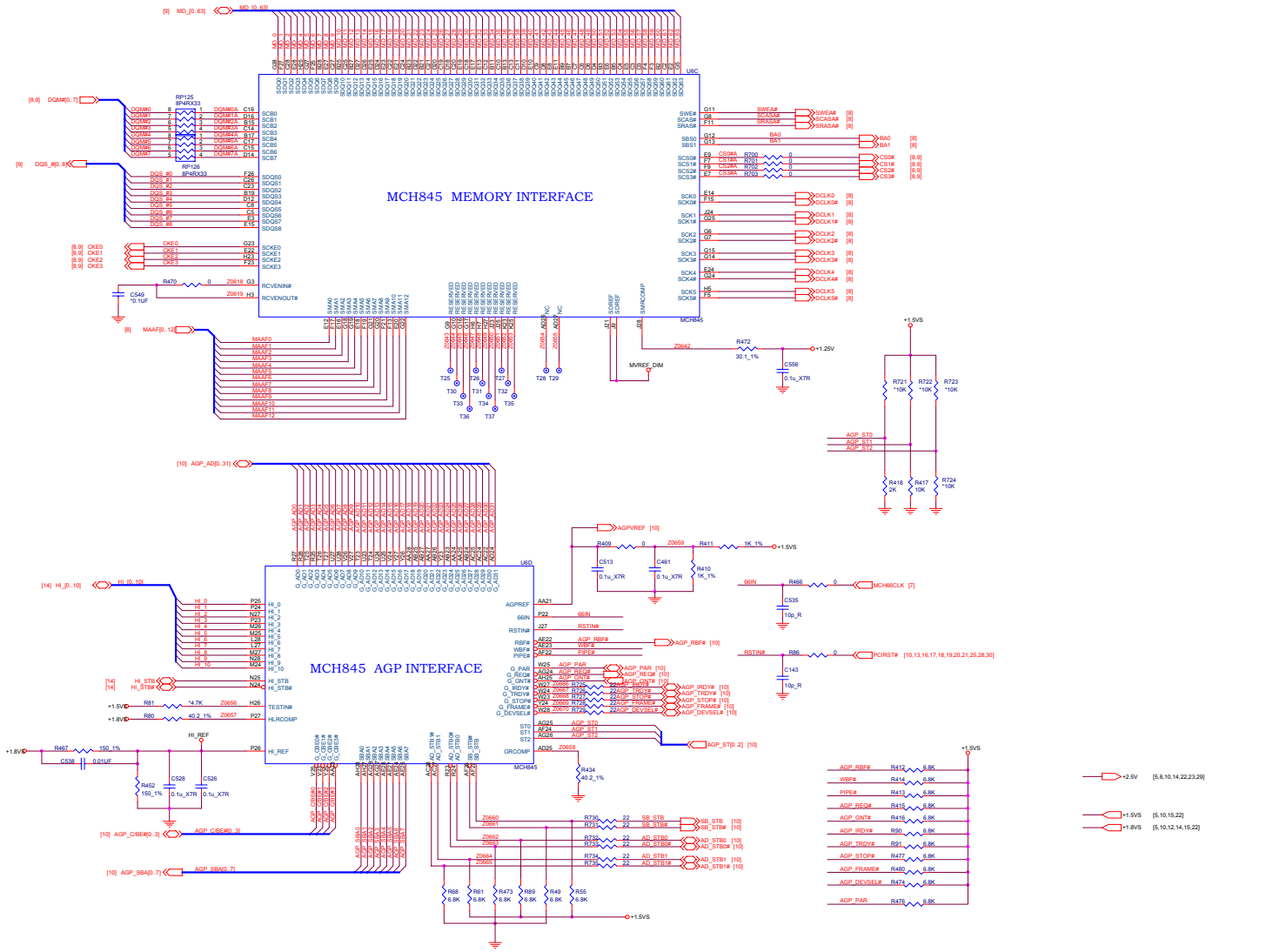




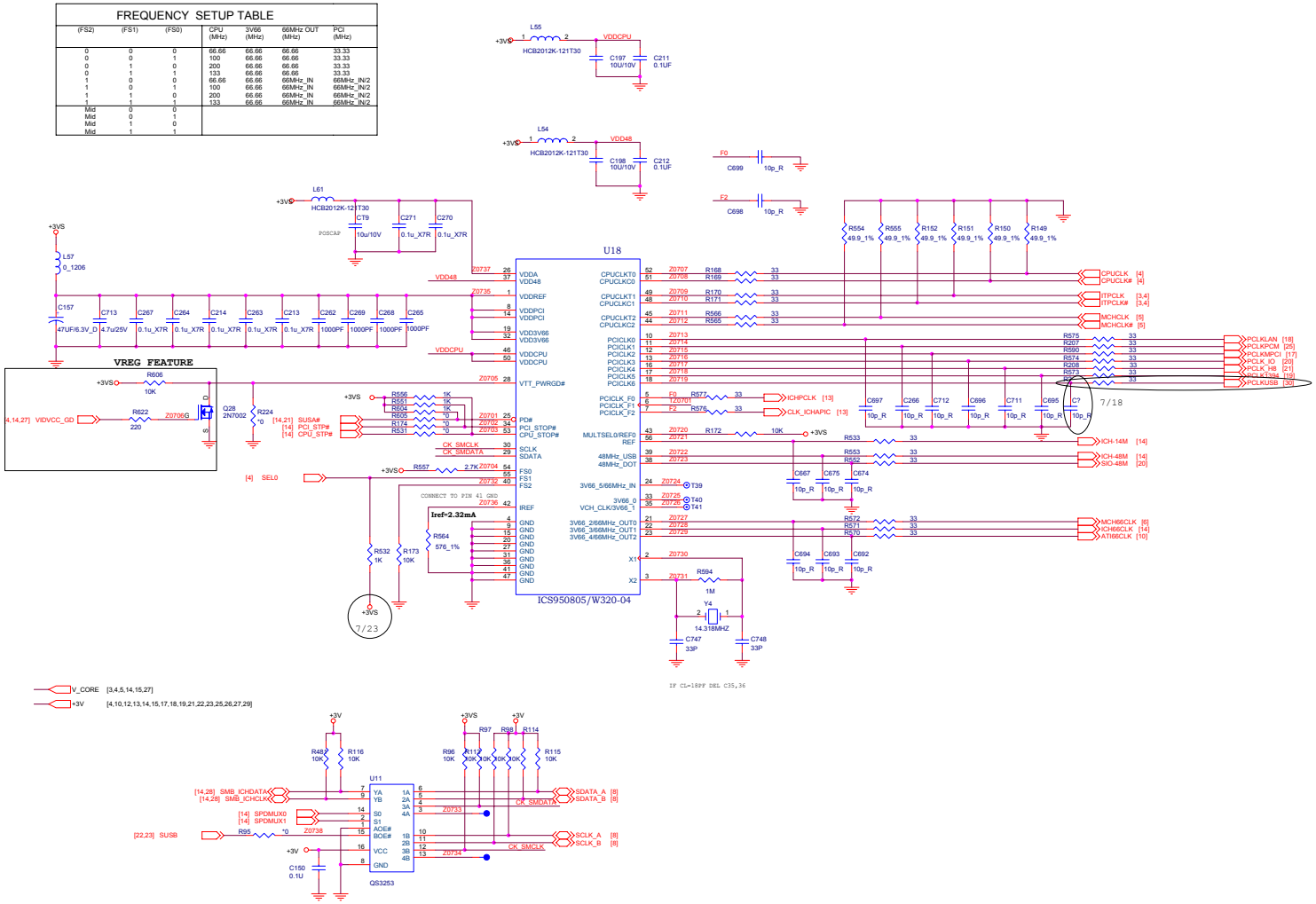
Sheet 4 of 29
MCH845
Power & Ground

MCH845 Memory Interface

Sheet 5 of 29
MCH845
Memory Interface



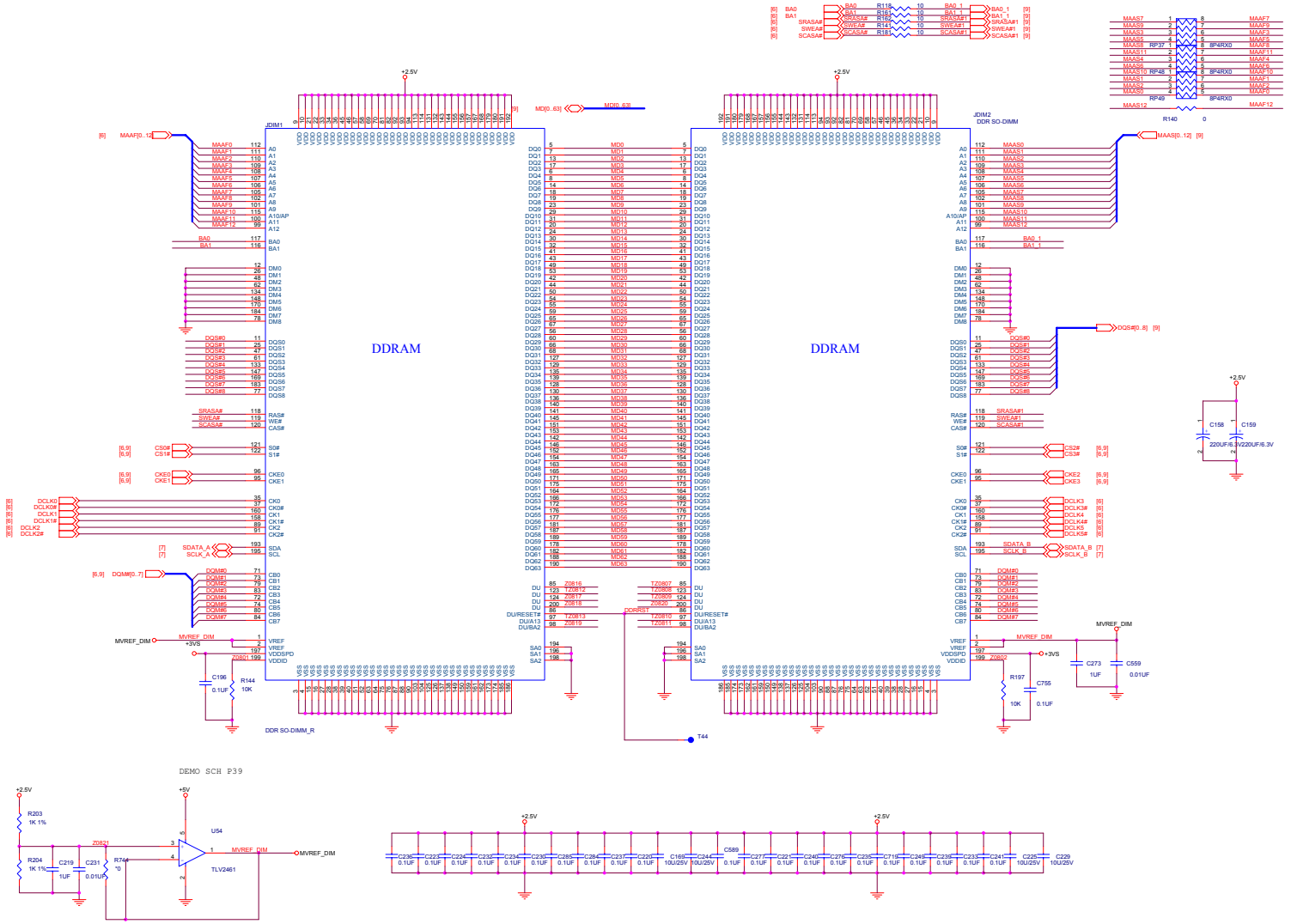
Clock Generator



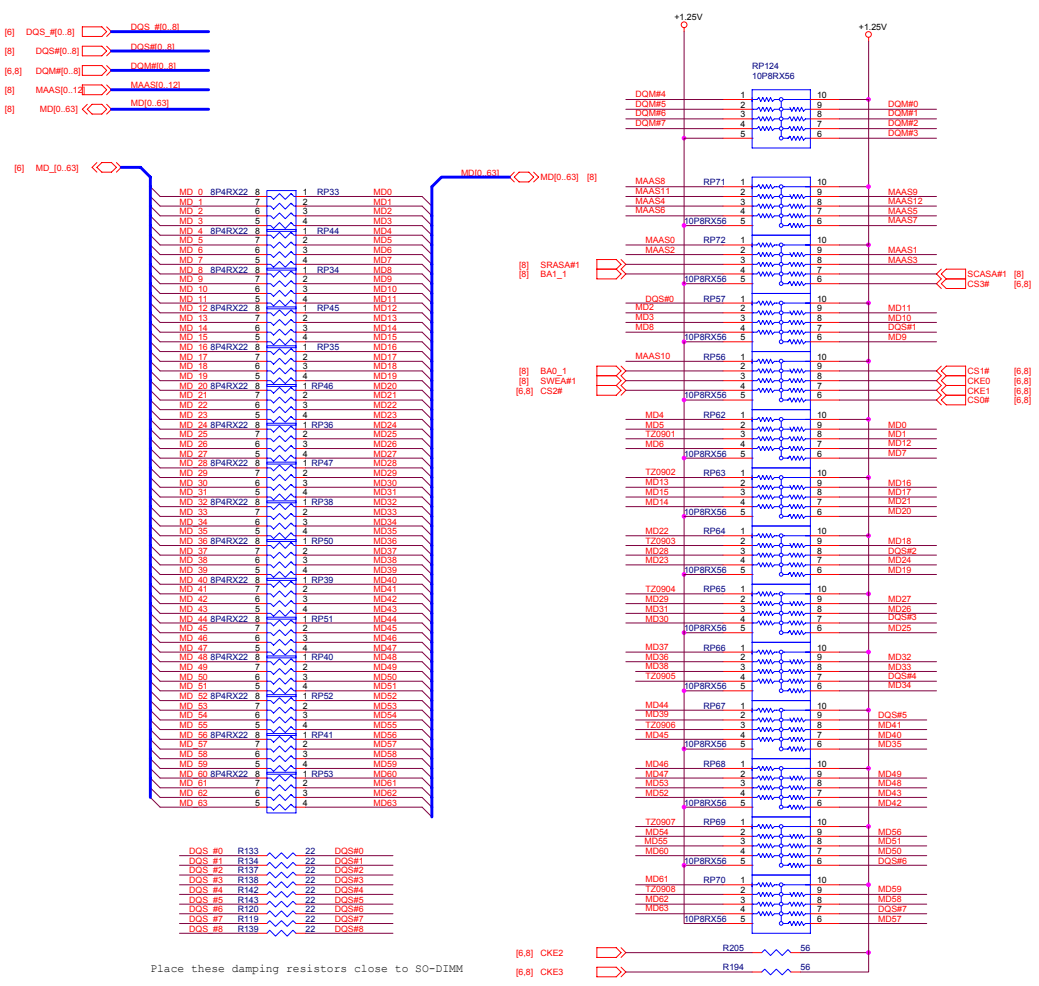
Sheet 6 of 29
Clock Generator

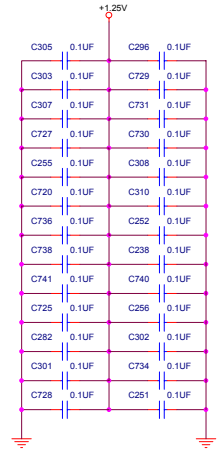
DDRAM

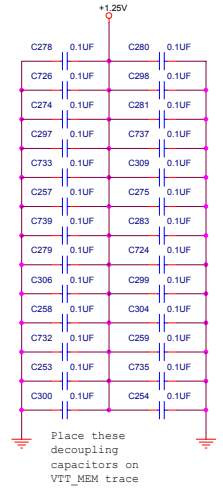
Sheet 7 of 29
DDRAM



DDR Termination



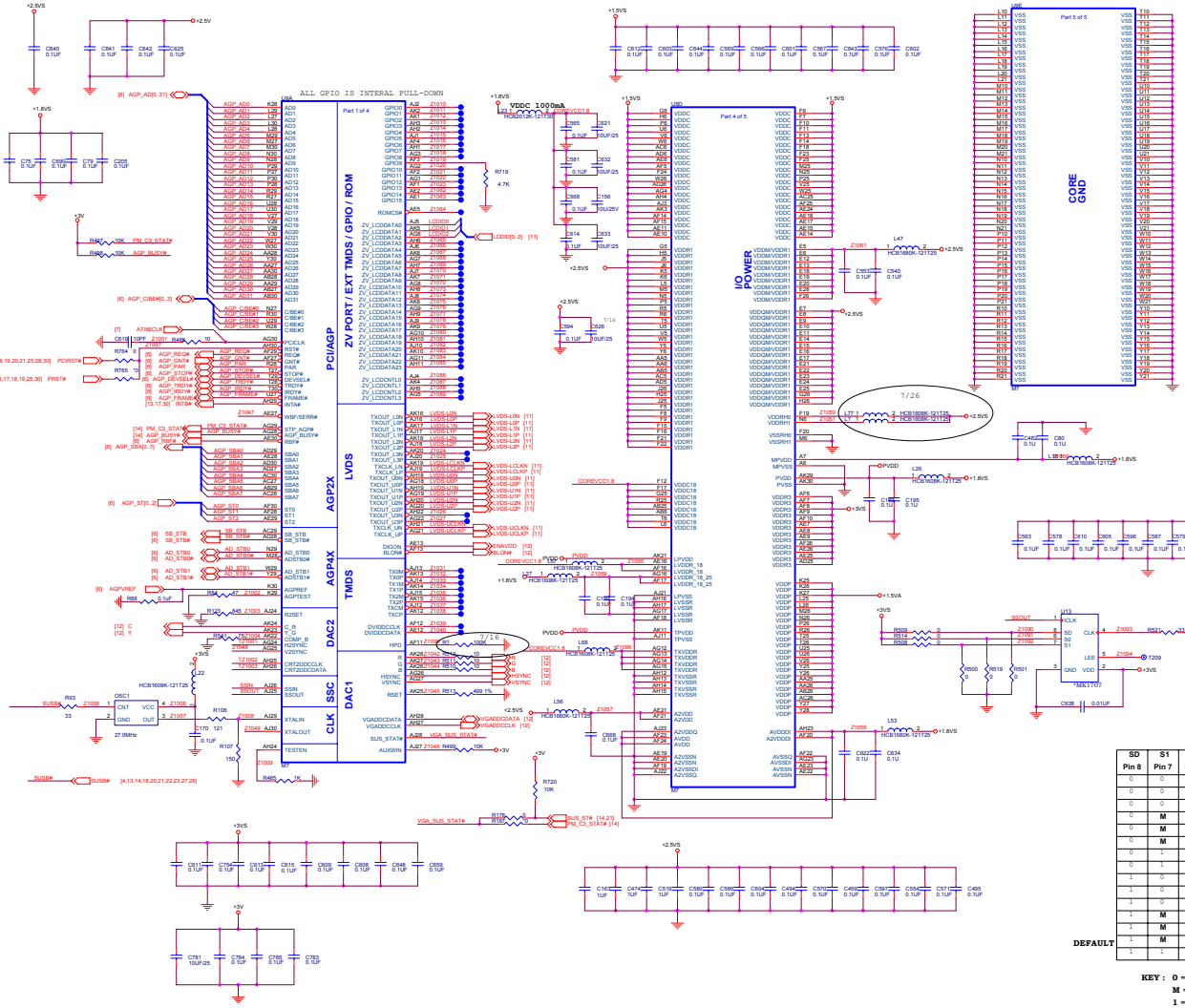




Sheet 8 of 29
DDR Termination

Mobility P7

Sheet 9 of 29
Mobility P7

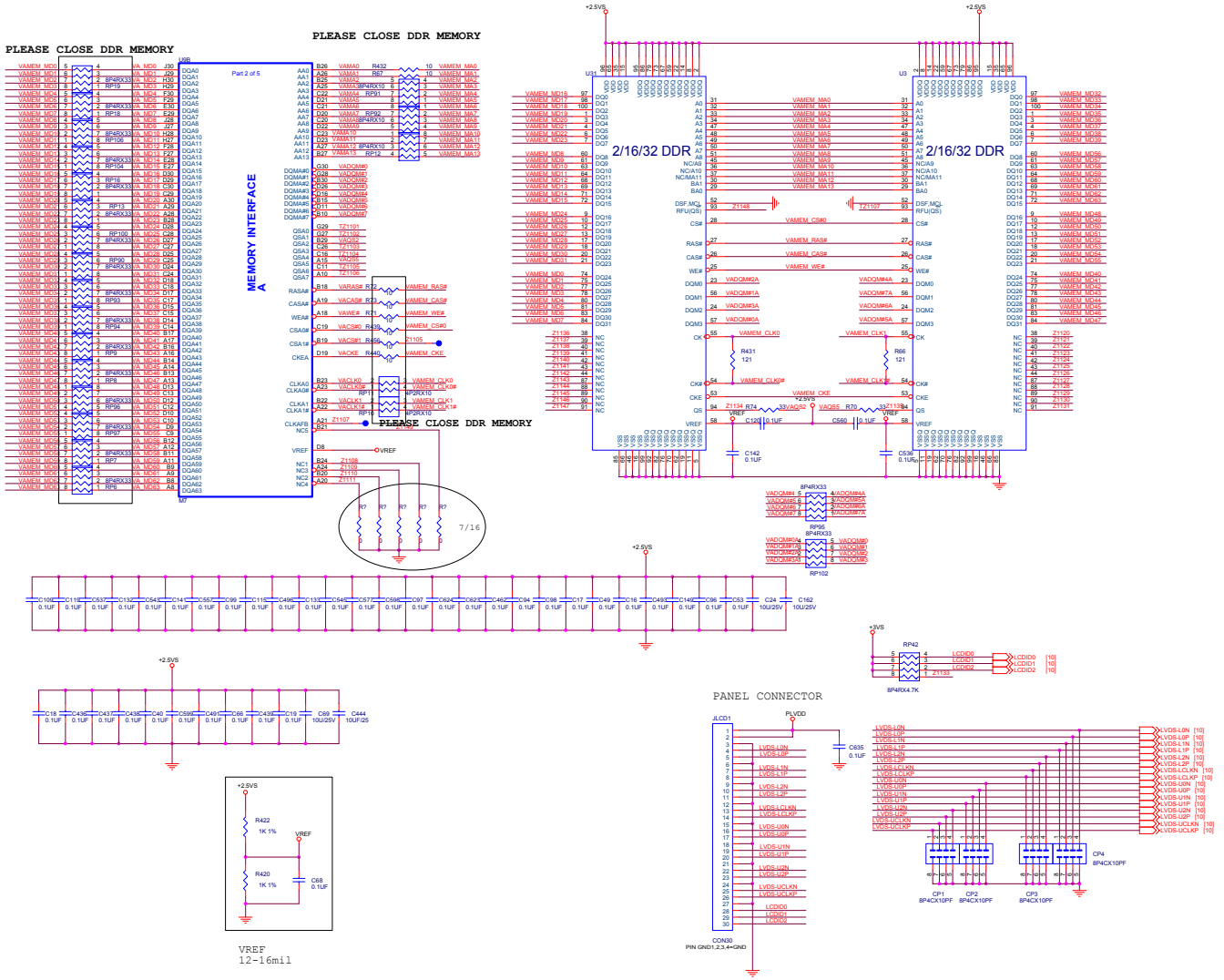


SD Pin 8	S1 Pin 7	S0 Pin 6	Spread Direction	Spread %
0	0	0	DOWN	0.6
0	0	M	DOWN	0.8
0	0	1	DOWN	1.25
0	M	0	DOWN CENTER	+0.5 , -1.5
0	M	M	DOWN	2
0	M	1	DOWN CENTER	+0.5 , -2.5
0	1	0	DOWN CENTER	+0.5 , -3
0	1	M	DOWN	5
1	0	0	CENTER	+/-0.35
1	0	M	CENTER	+/-0.5
1	0	1	CENTER	+/-0.7
1	M	0	CENTER	+/-0.8
1	M	M	CENTER	+/-1.1
1	M	1	CENTER	+/-1.4
1	1	M	CENTER	+/-2.5

DEFAULT

KEY : 0 = Connect to GND
M = Unconnect (floating)
1 = Connect directly to VDD

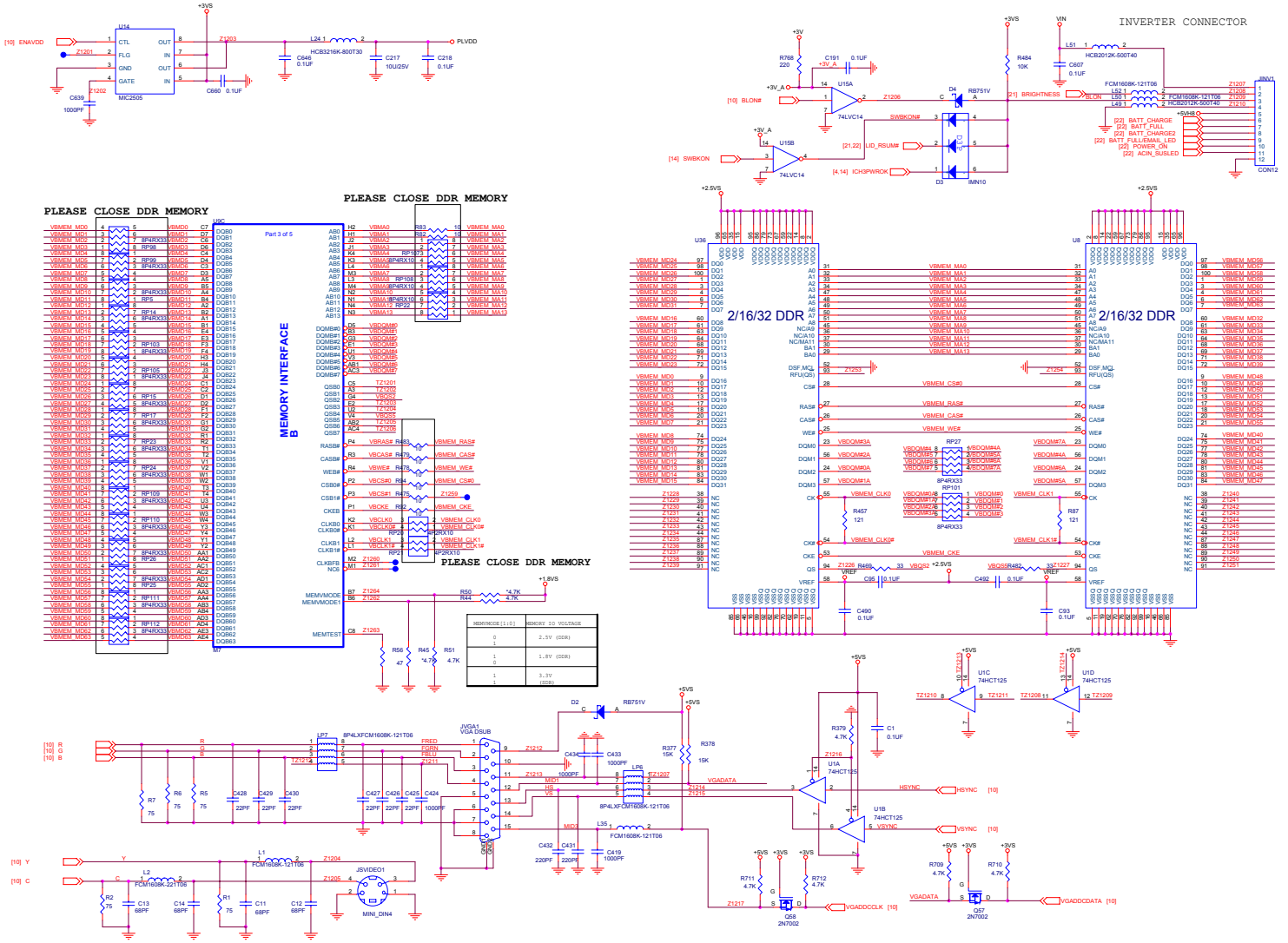
Mobility Mem A; Term; LVDS



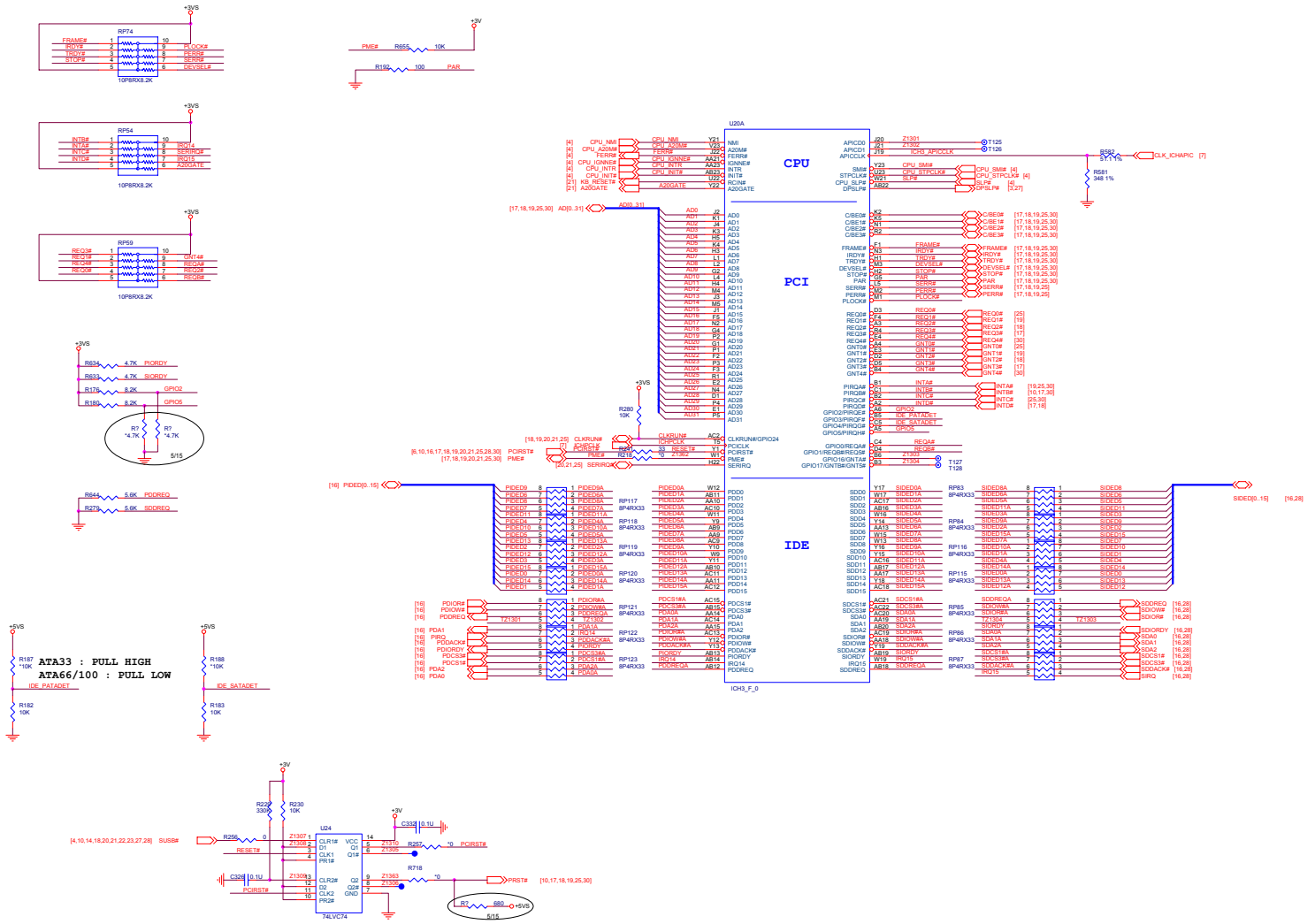
Sheet 10 of 29
Mobility Mem A; Term; LVDS

Mobility Mem B; CRT; TV Out

Sheet 11 of 29
Mobility Mem B;
CRT; TV Out



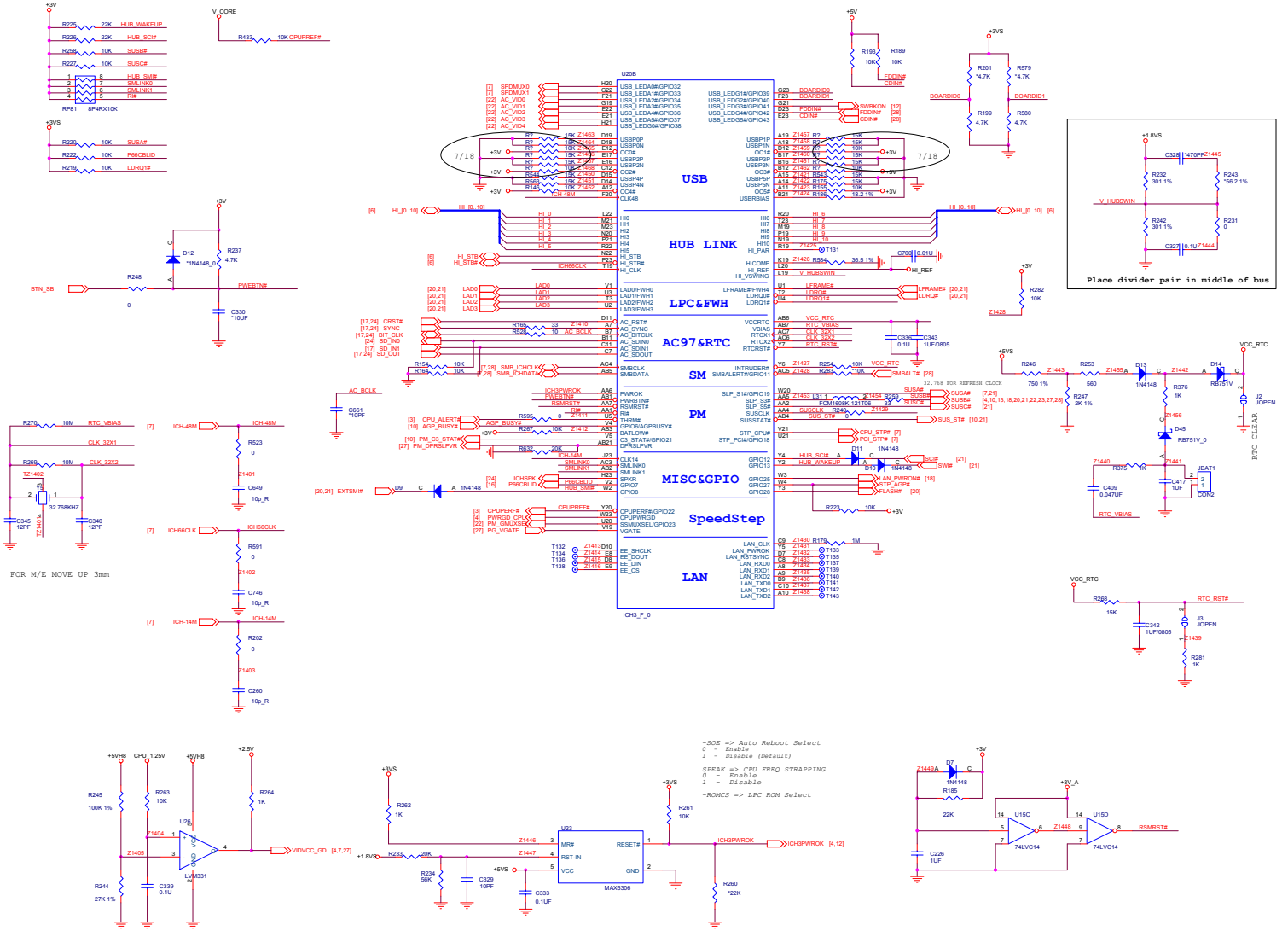
ICH3 (1 of 3)



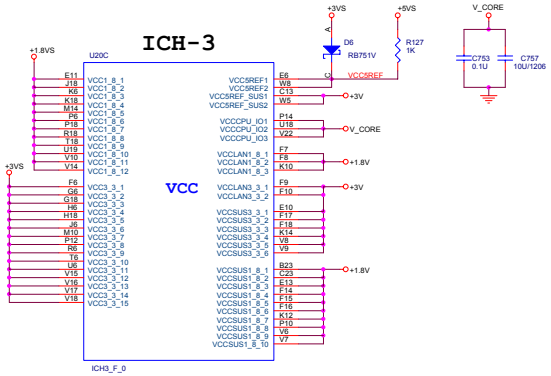
Sheet 12 of 29
ICH3
1 of 3

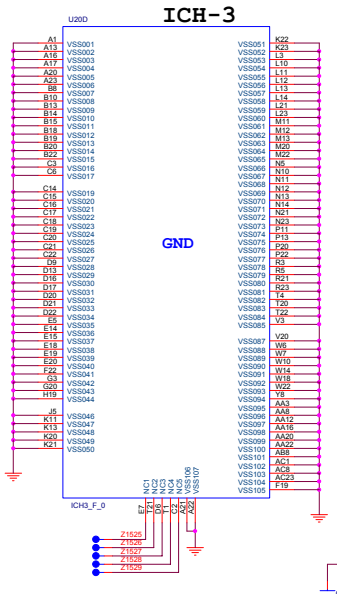
ICH3 (2 of 3)

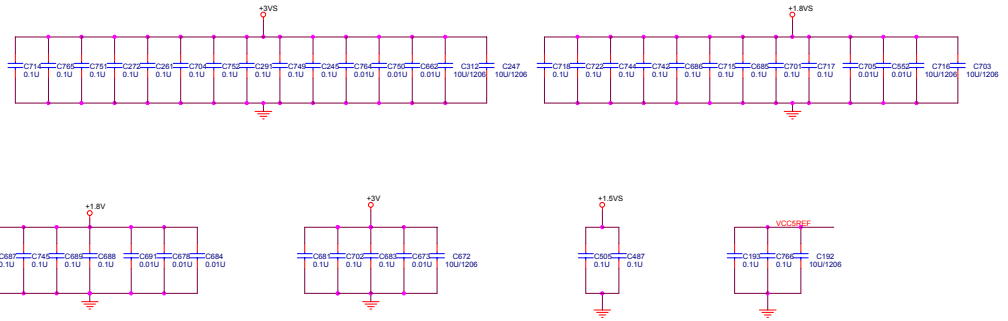
Sheet 13 of 29
ICH3
2 of 3



ICH3 (3 of 3)







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ICH3
3 of 3

HDD/CDROM/FDD

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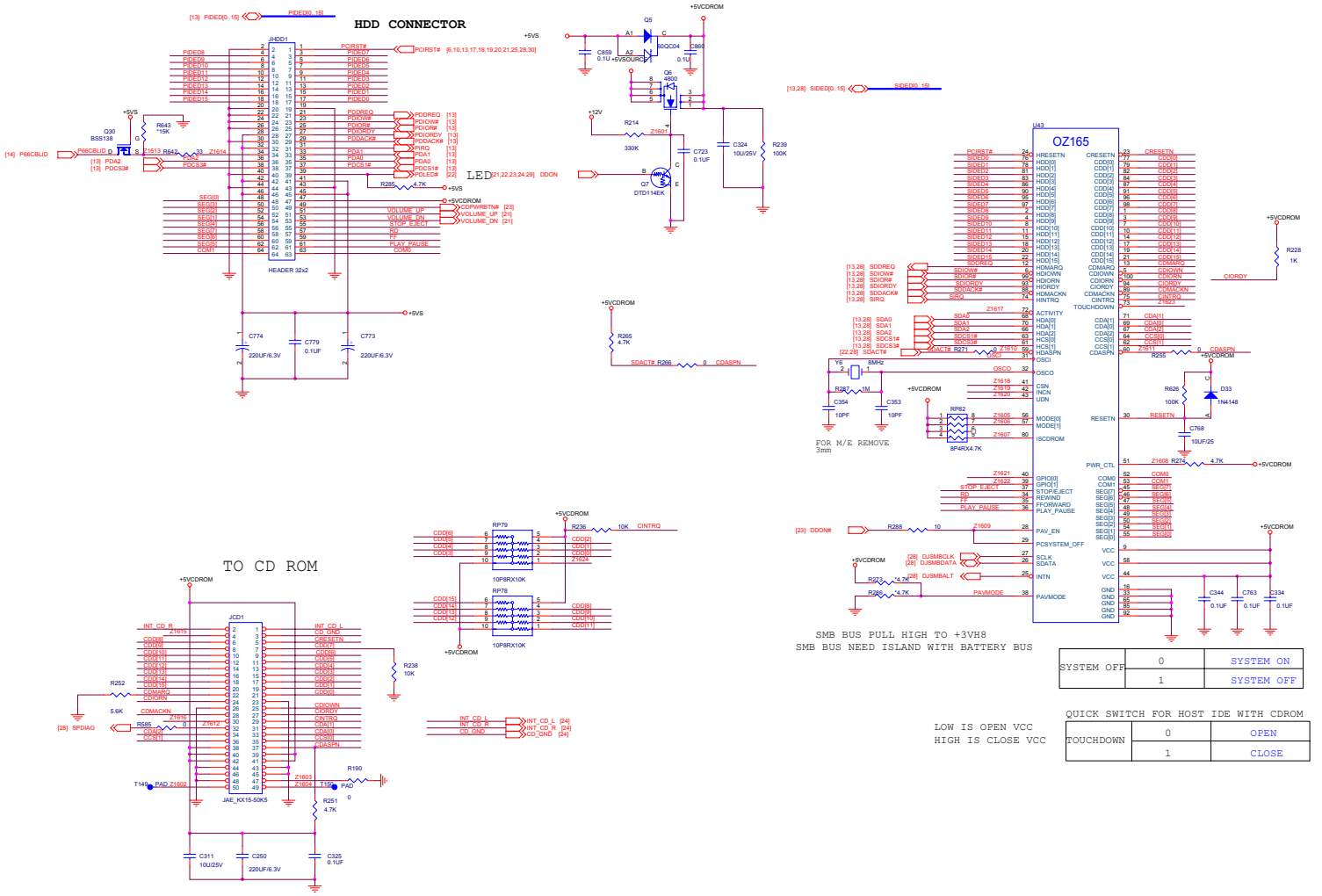
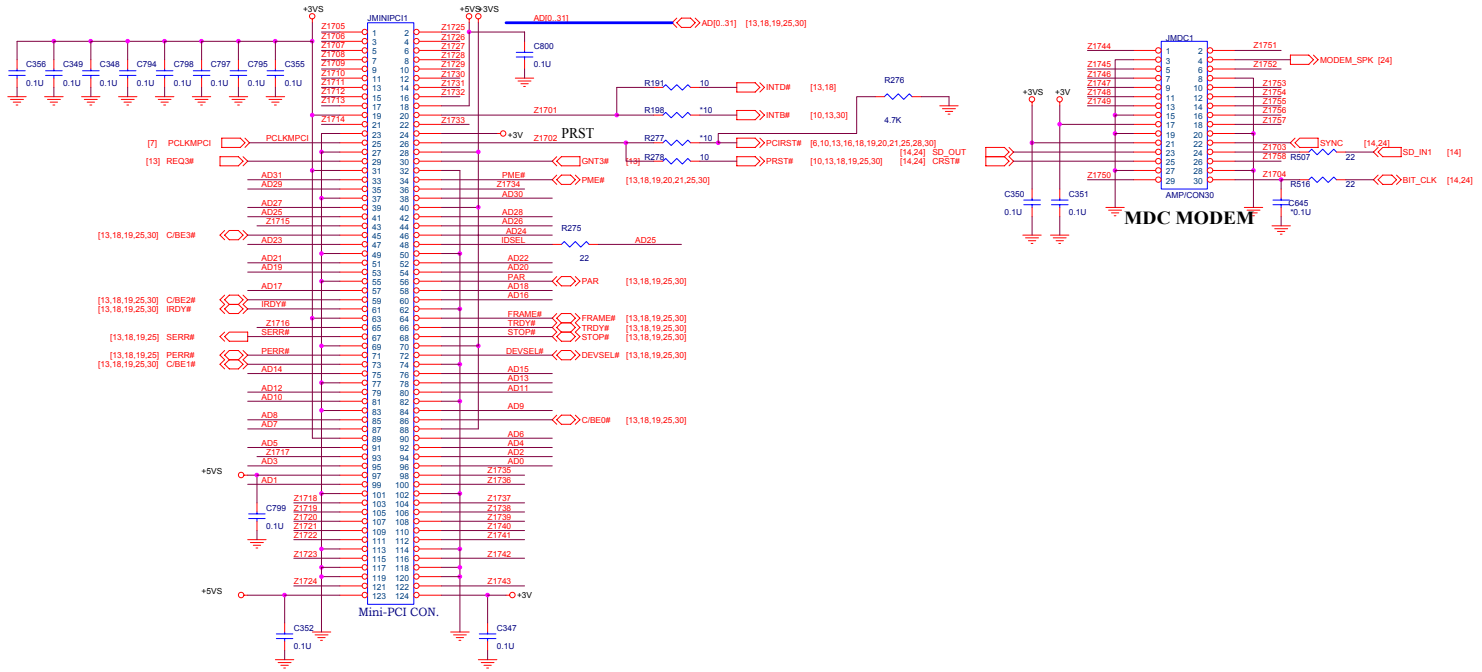
HDD/CDROM/FDD



Mini PCI; MDC Modem



Sheet 16 of 29
Mini PCI;
MDC Modem

LAN RTL8139CL

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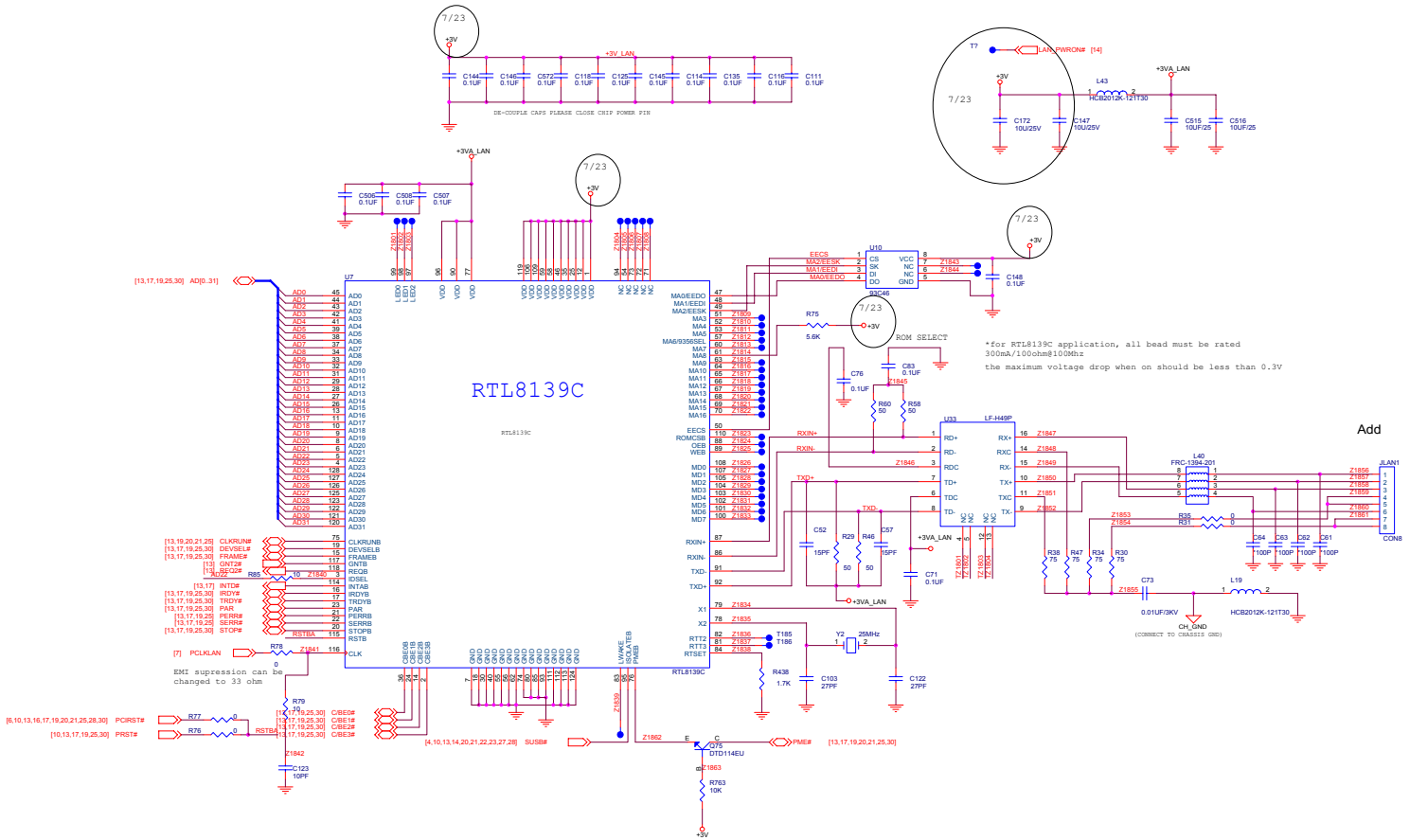
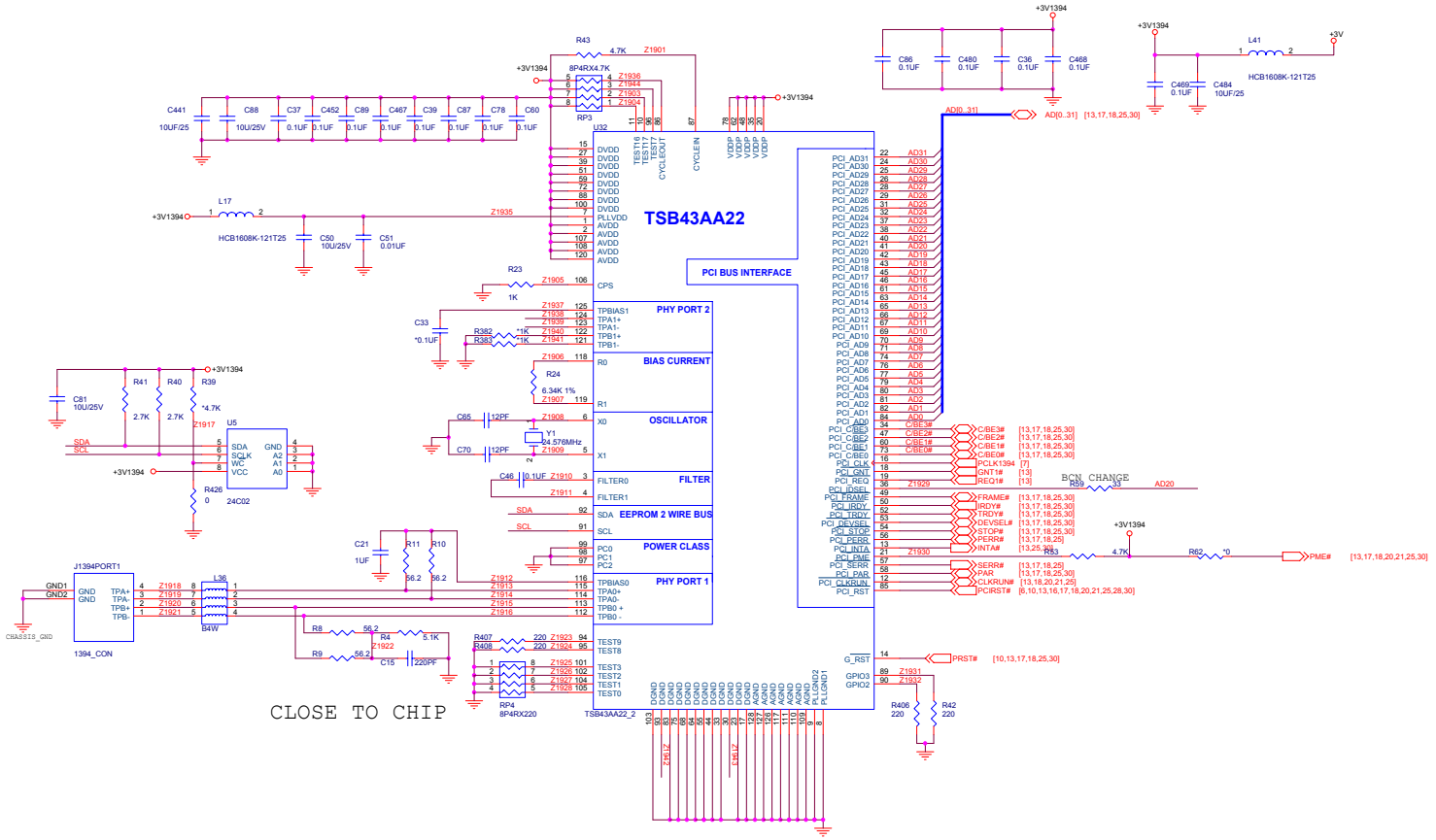
LAN RTL8139CL



TI1394 TSB43AB22



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TI1394 TSB43AB22

NS-PC87393; IR; ROM

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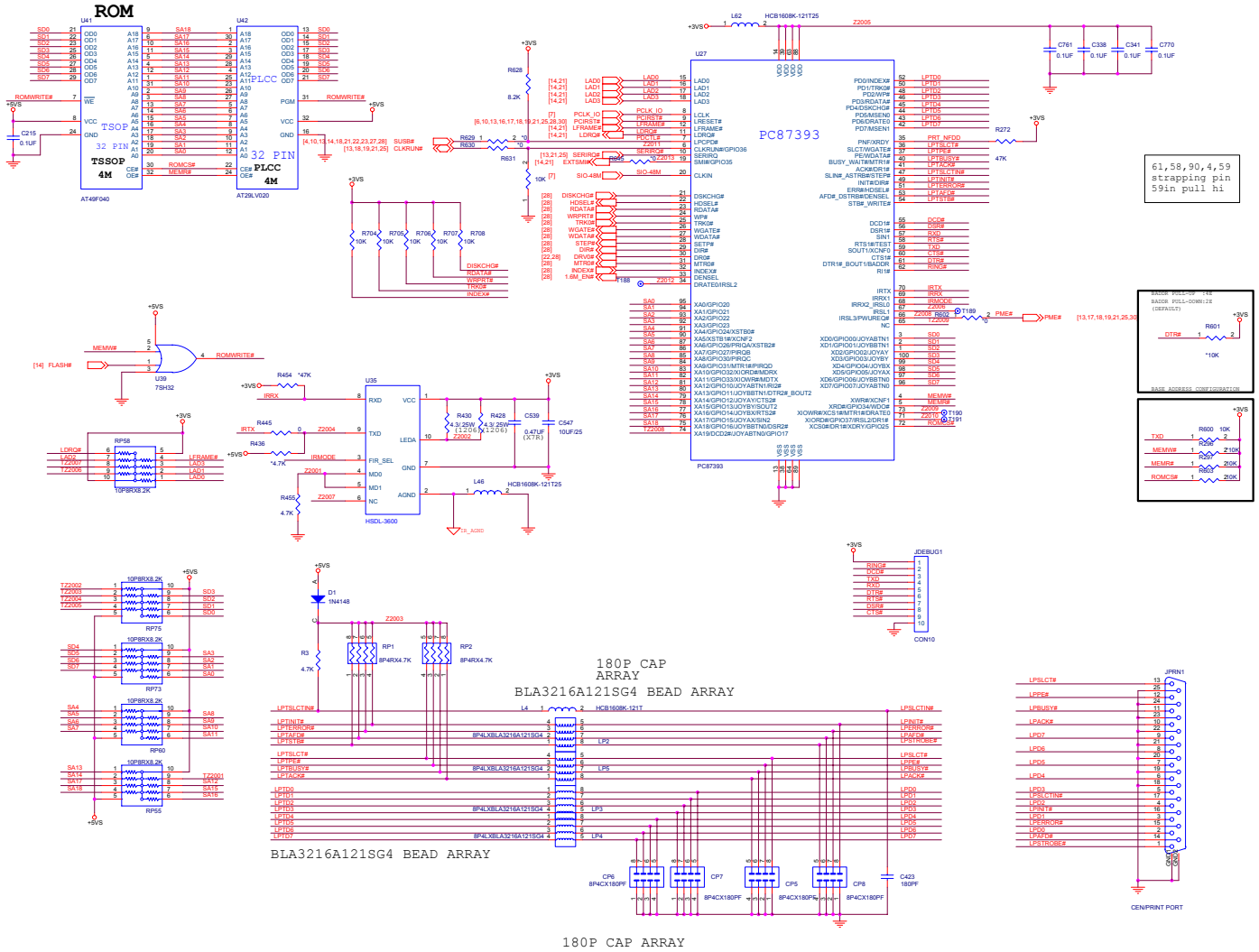
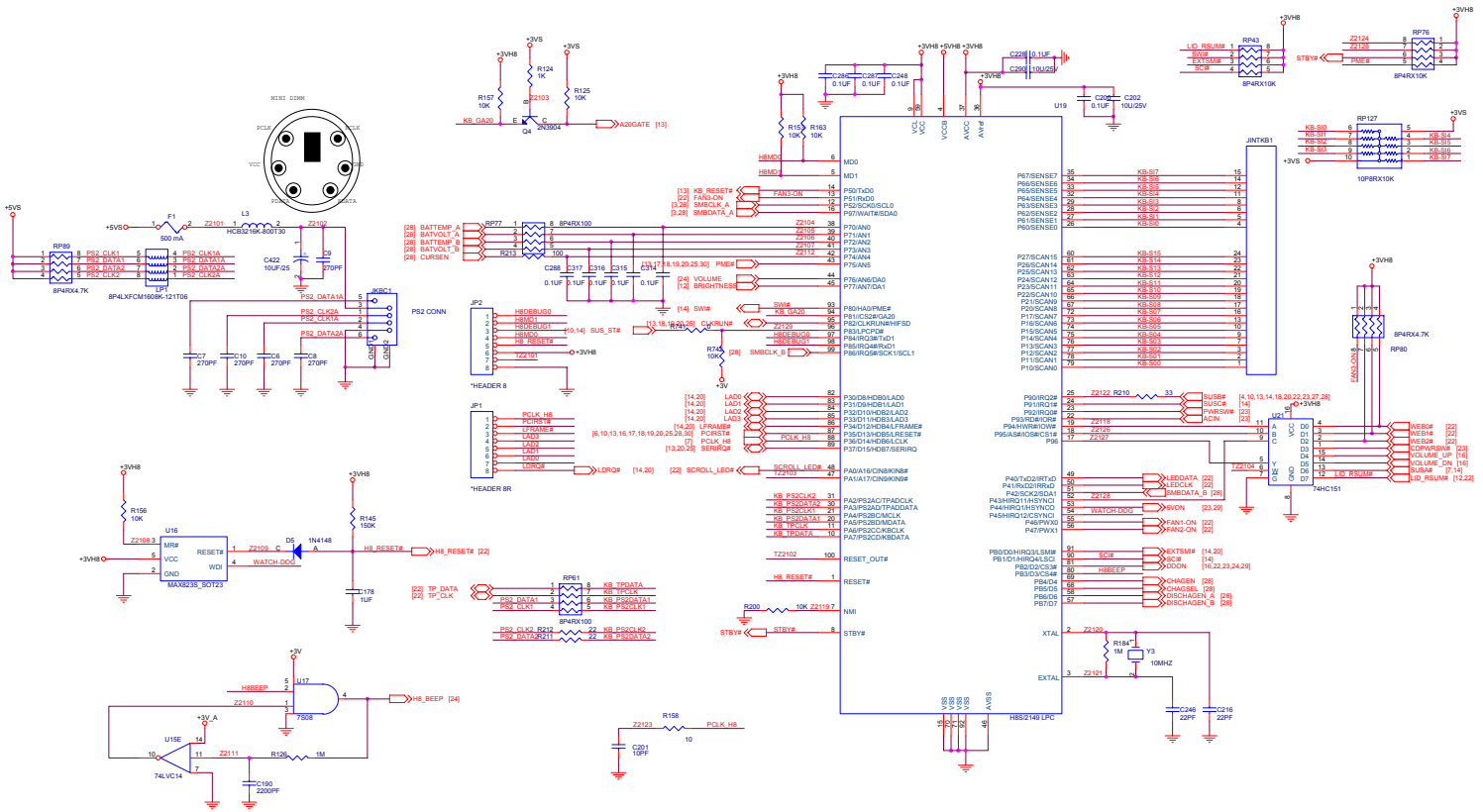
NS-PC87393; IR; ROM



H8



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H8

KBC Conn; Fan Conn

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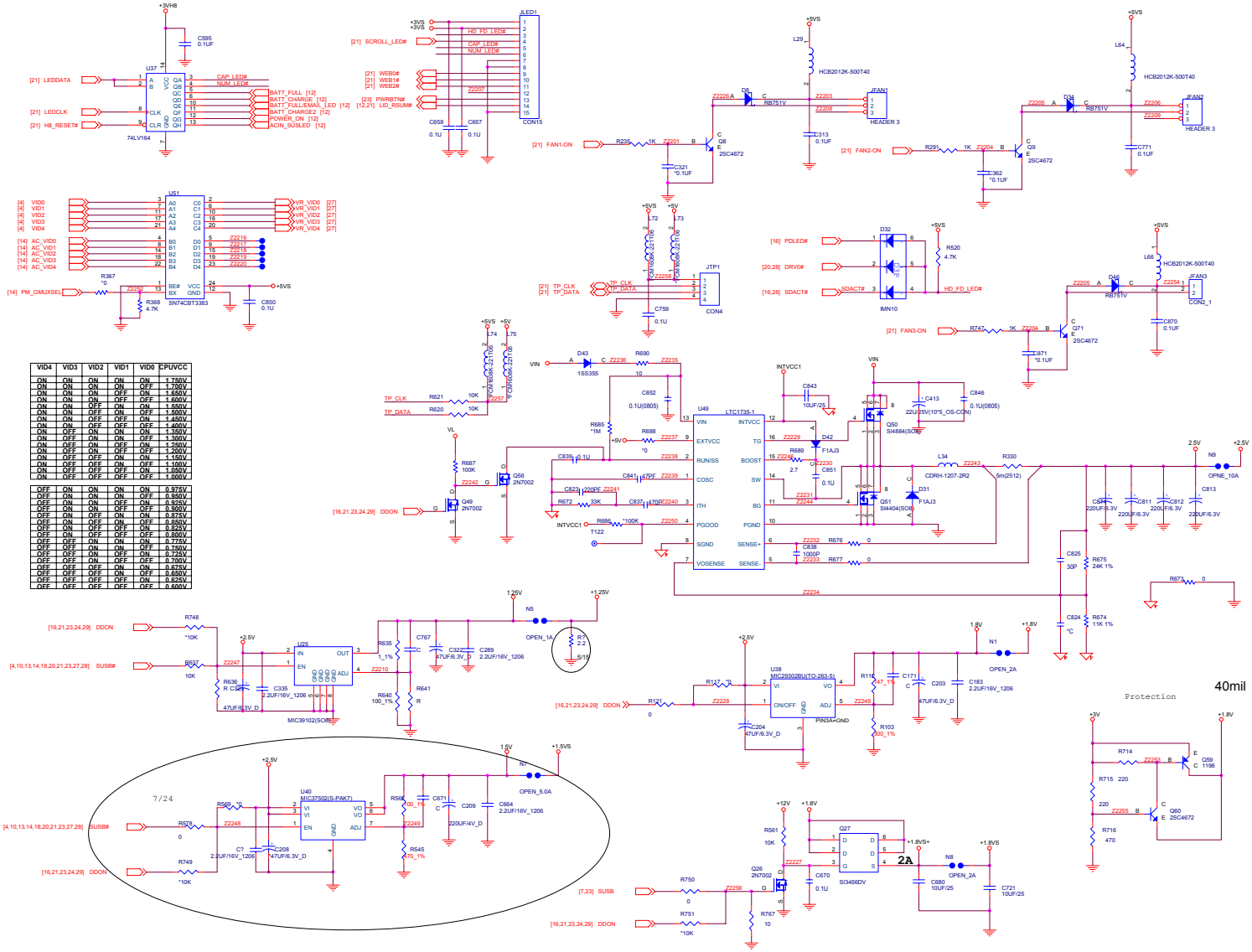
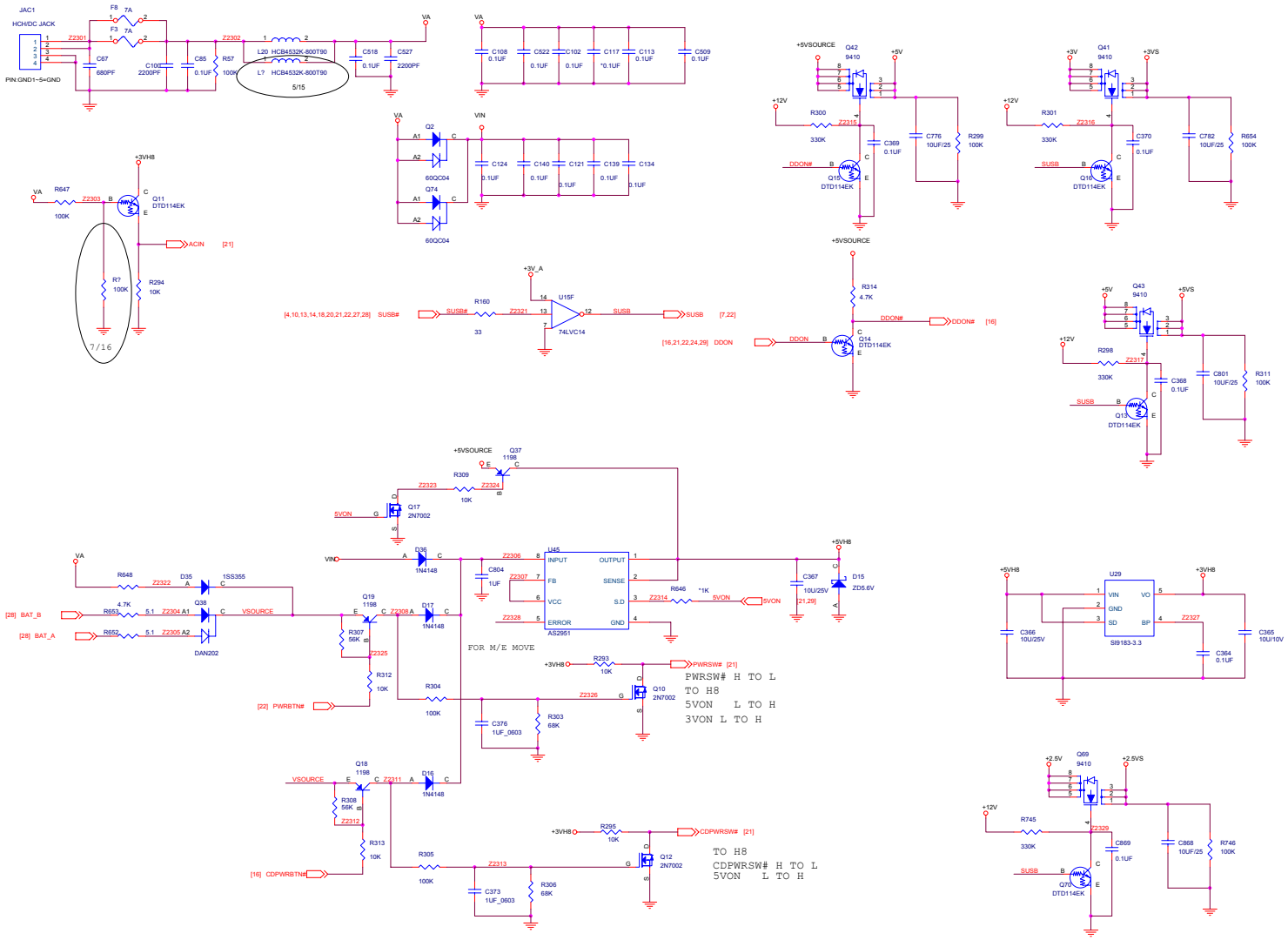
KBC Conn;
Fan Conn



VID4	VID3	VID2	VID1	VID0	CPUVCC
ON	ON	ON	ON	ON	1.750V
ON	ON	ON	ON	OFF	1.700V
ON	ON	ON	OFF	ON	1.650V
ON	ON	ON	OFF	OFF	1.600V
ON	ON	OFF	ON	ON	1.550V
ON	ON	OFF	ON	OFF	1.500V
ON	ON	OFF	OFF	ON	1.450V
ON	ON	OFF	OFF	OFF	1.400V
ON	OFF	ON	ON	ON	1.350V
ON	OFF	ON	ON	OFF	1.300V
ON	OFF	ON	OFF	ON	1.250V
ON	OFF	ON	OFF	OFF	1.200V
ON	OFF	OFF	ON	ON	1.150V
ON	OFF	OFF	ON	OFF	1.100V
ON	OFF	OFF	OFF	ON	1.050V
ON	OFF	OFF	OFF	OFF	1.000V
OFF	ON	ON	ON	ON	0.975V
OFF	ON	ON	ON	OFF	0.950V
OFF	ON	ON	OFF	ON	0.925V
OFF	ON	ON	OFF	OFF	0.900V
OFF	ON	OFF	ON	ON	0.875V
OFF	ON	OFF	ON	OFF	0.850V
OFF	ON	OFF	OFF	ON	0.825V
OFF	ON	OFF	OFF	OFF	0.800V
OFF	OFF	ON	ON	ON	0.775V
OFF	OFF	ON	ON	OFF	0.750V
OFF	OFF	ON	OFF	ON	0.725V
OFF	OFF	ON	OFF	OFF	0.700V
OFF	OFF	OFF	ON	ON	0.675V
OFF	OFF	OFF	ON	OFF	0.650V
OFF	OFF	OFF	OFF	ON	0.625V
OFF	OFF	OFF	OFF	OFF	0.600V

ACIN; PWR Button



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ACIN; PWR Button

AC'97 AD1886

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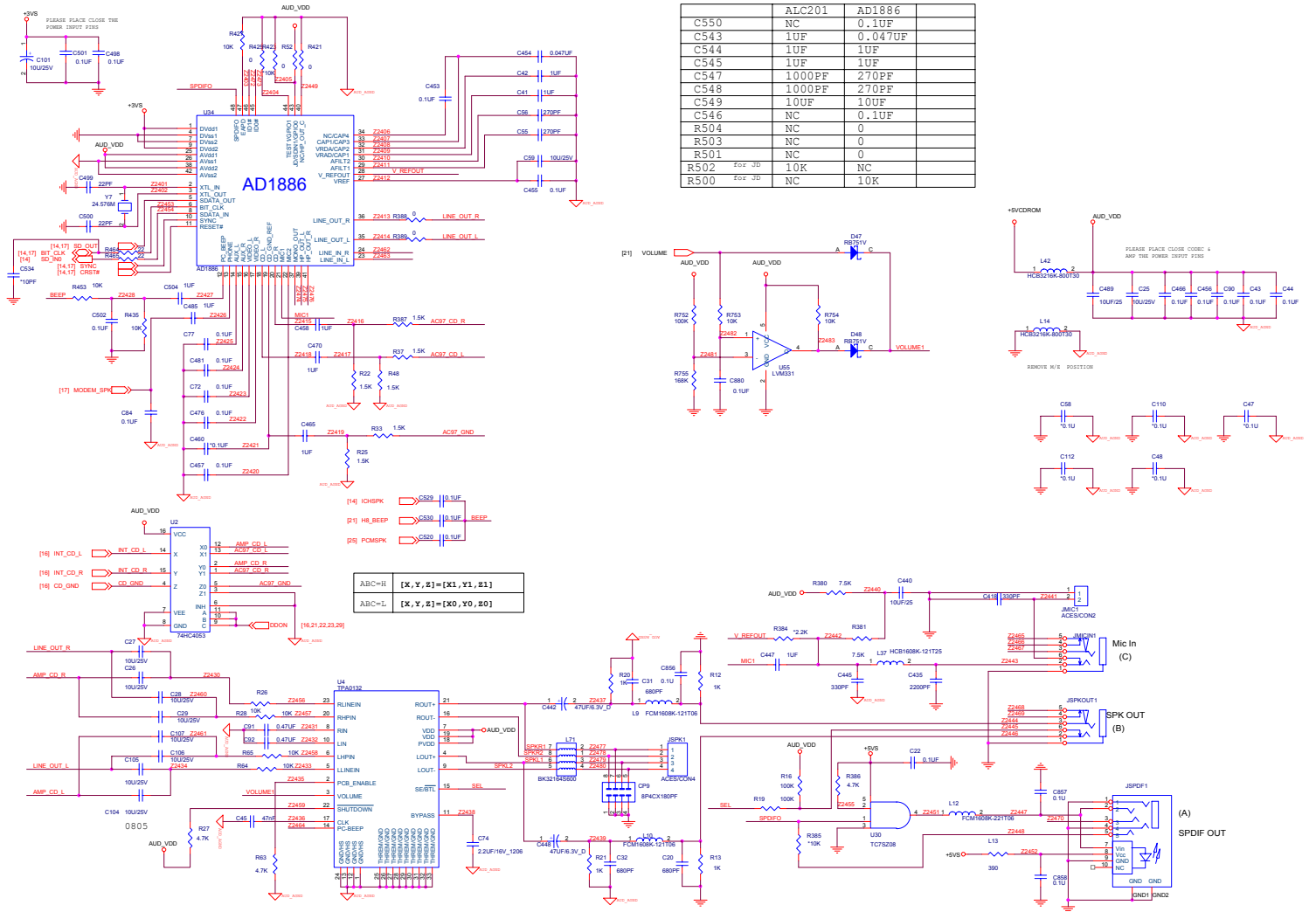
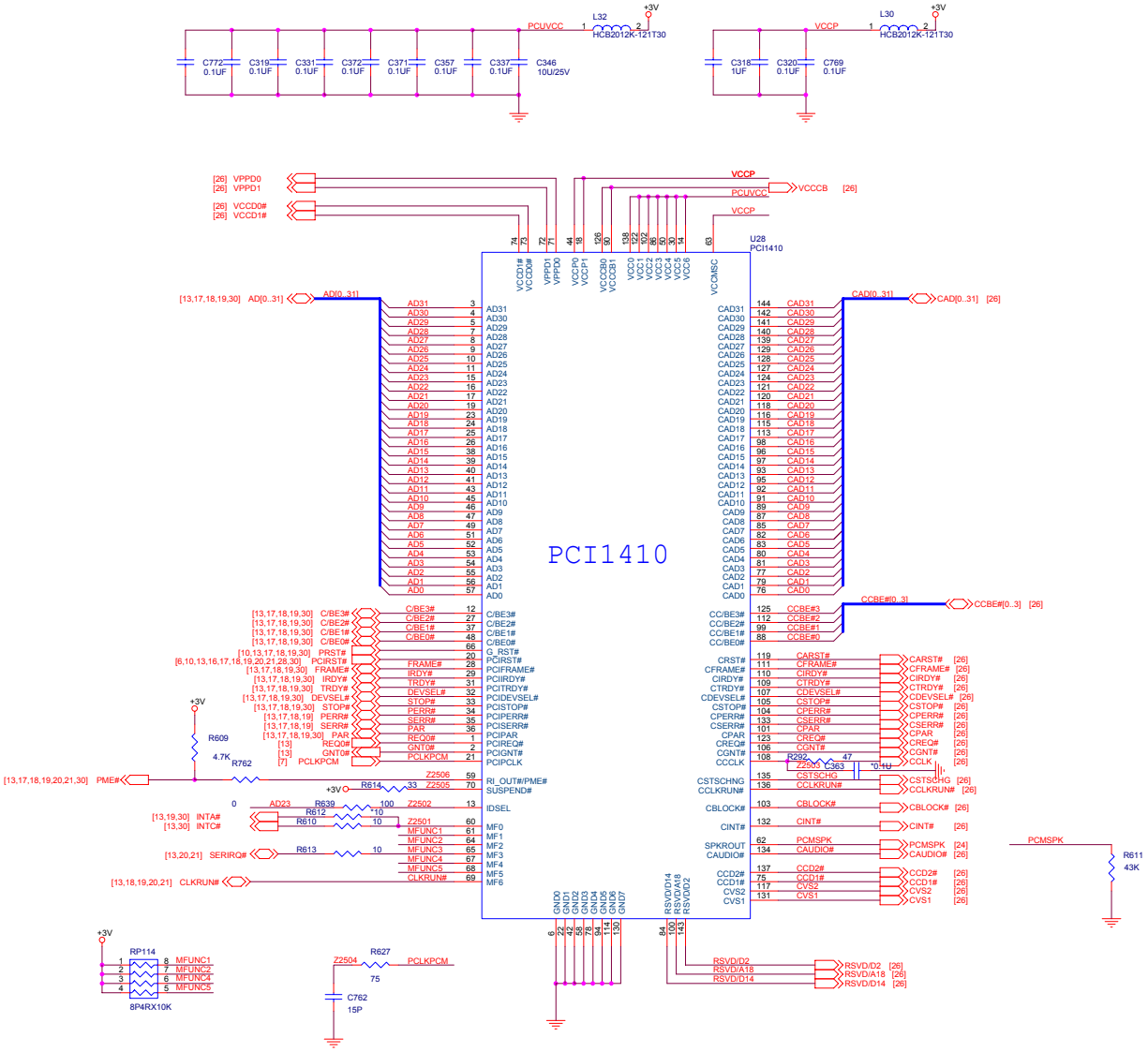
AC'97 AD1886



	ALC201	AD1886	
C550	NC	0.1UF	
C543	1UF	0.047UF	
C544	1UF	1UF	
C545	1UF	1UF	
C547	1000PF	270PF	
C548	1000PF	270PF	
C549	10UF	10UF	
C546	NC	0.1UF	
R504	NC	0	
R503	NC	0	
R501	NC	0	
R502 for JD	10K	NC	
R500 for JD	NC	10K	

ABC=H	[X,Y,Z]=[X1,Y1,Z1]
ABC=L	[X,Y,Z]=[X0,Y0,Z0]

PCI 1410



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PCI 1410

PCMCIA Socket

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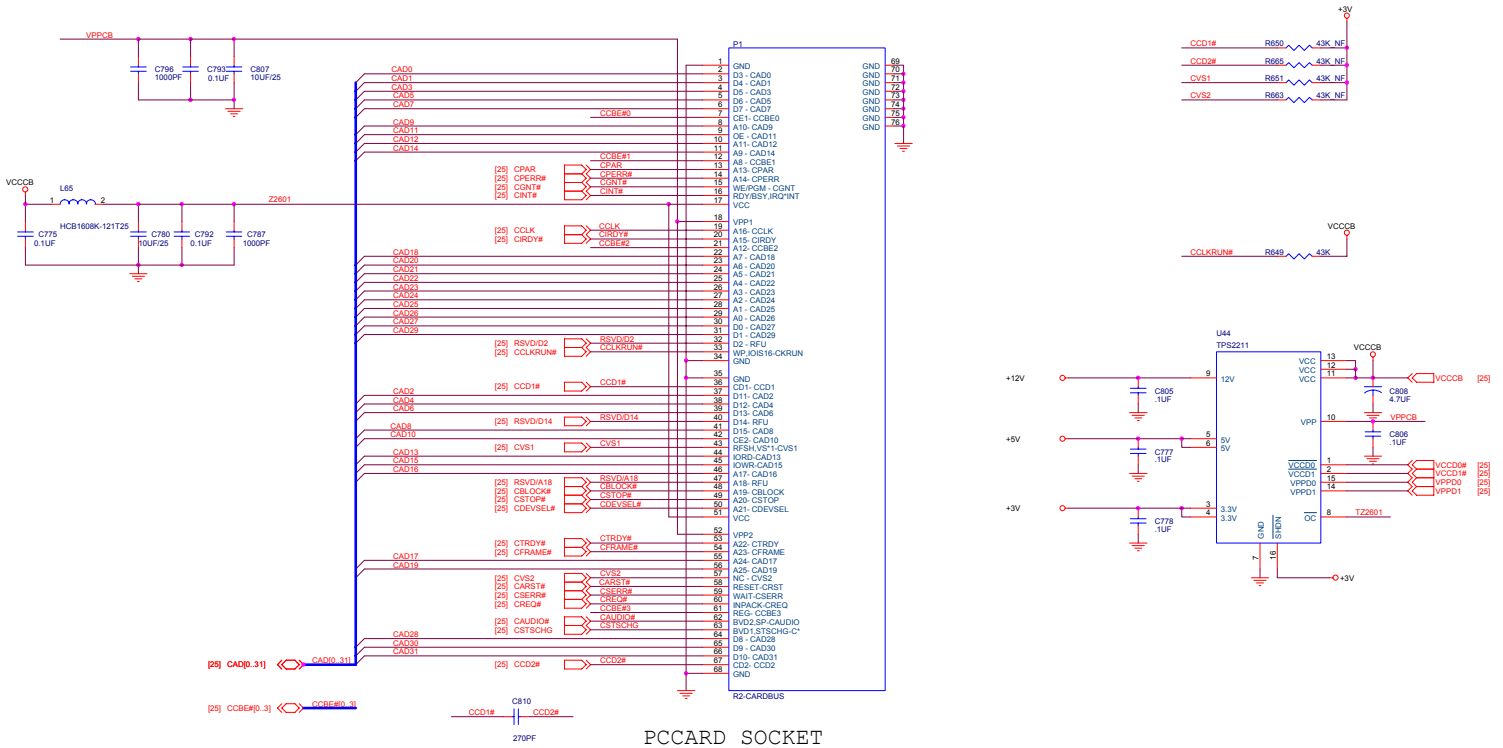
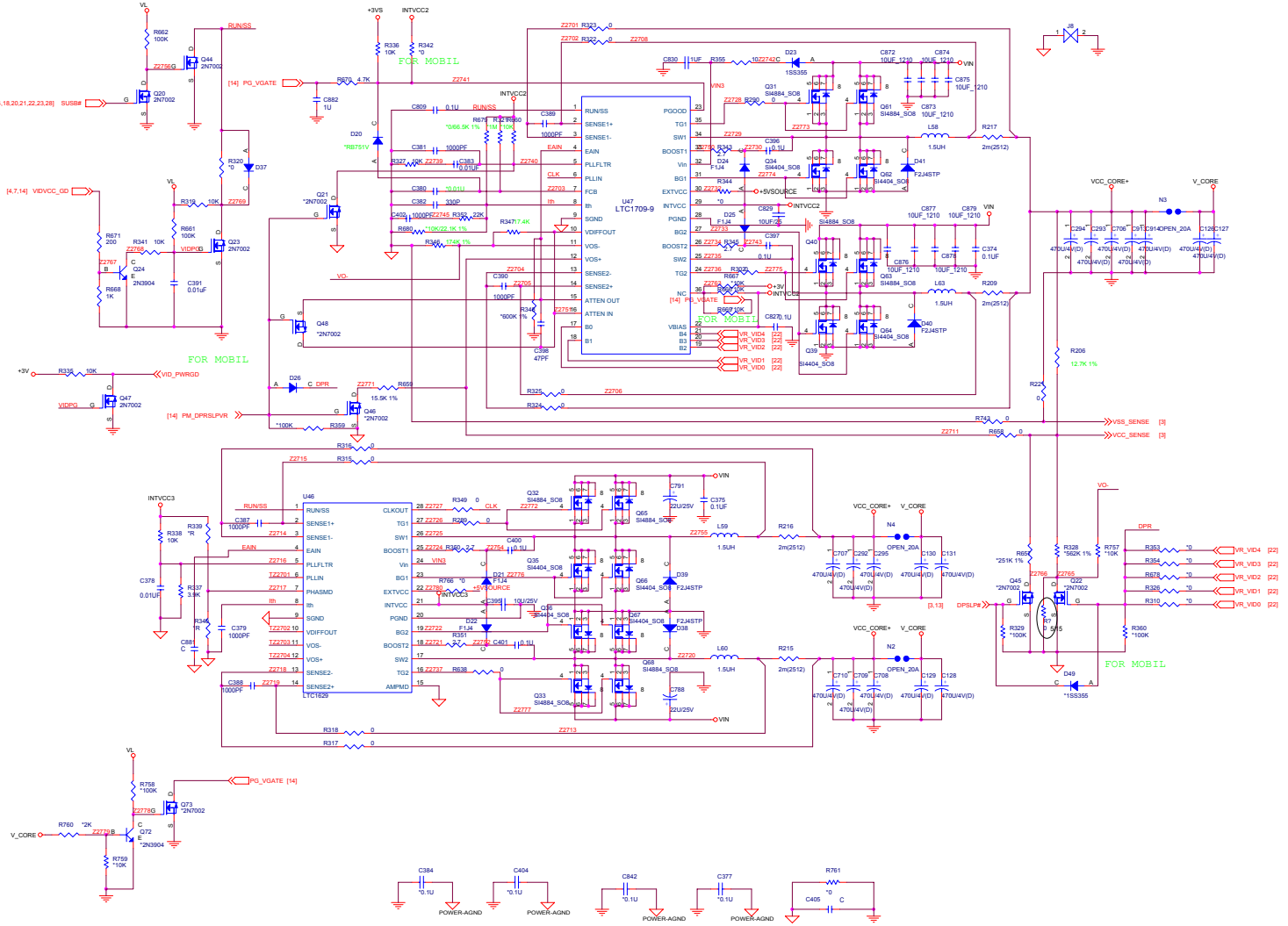
PCMCIA Socket



CPU Core Power



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CPU Core Power

D/D Conn

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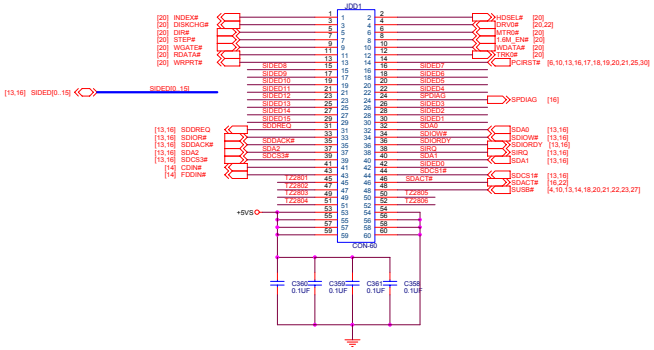
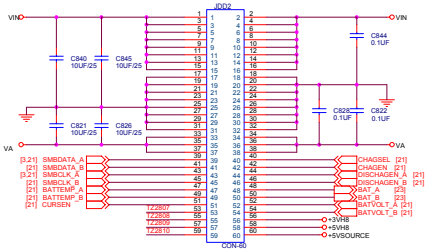
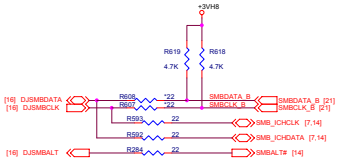
D/D Conn

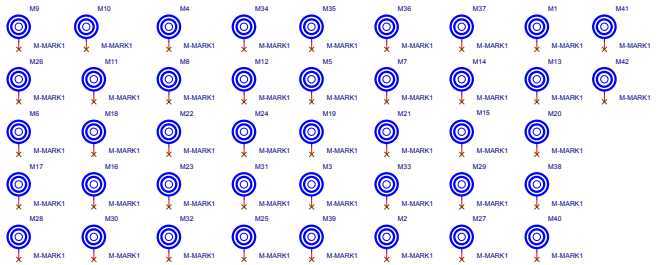


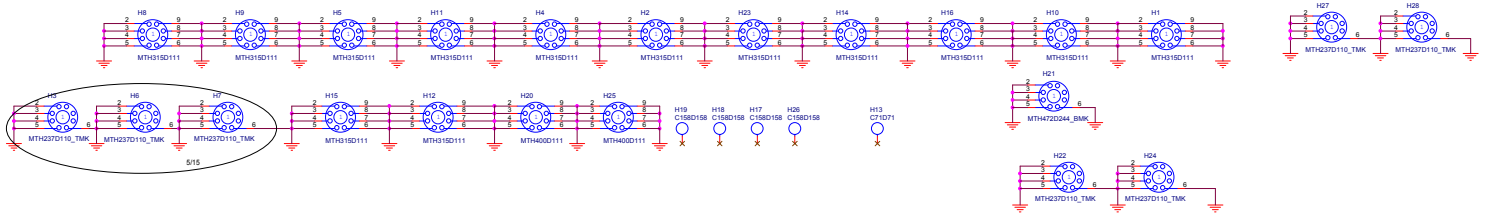


JDD1

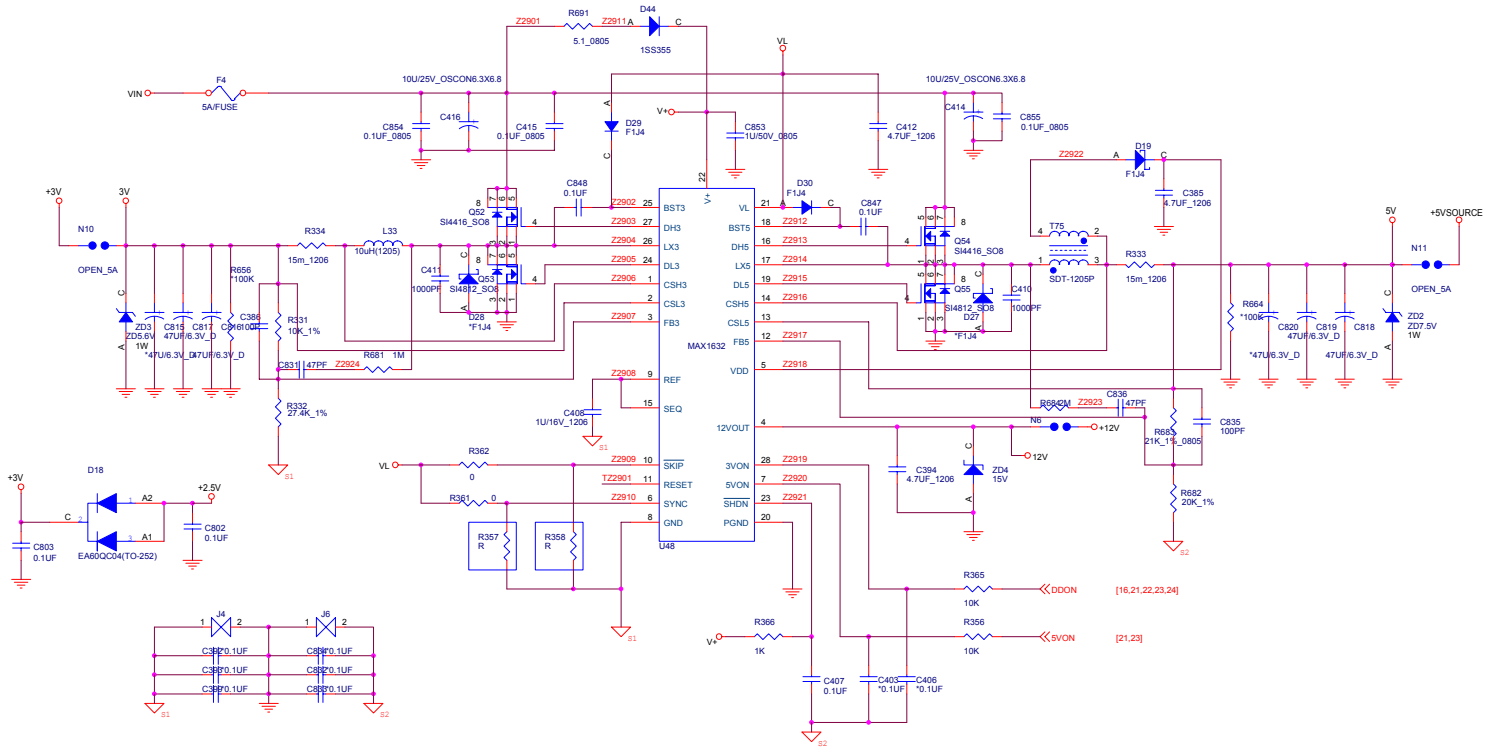
JDD2







+3V; +5V



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+3V; +5V

USB 2.0

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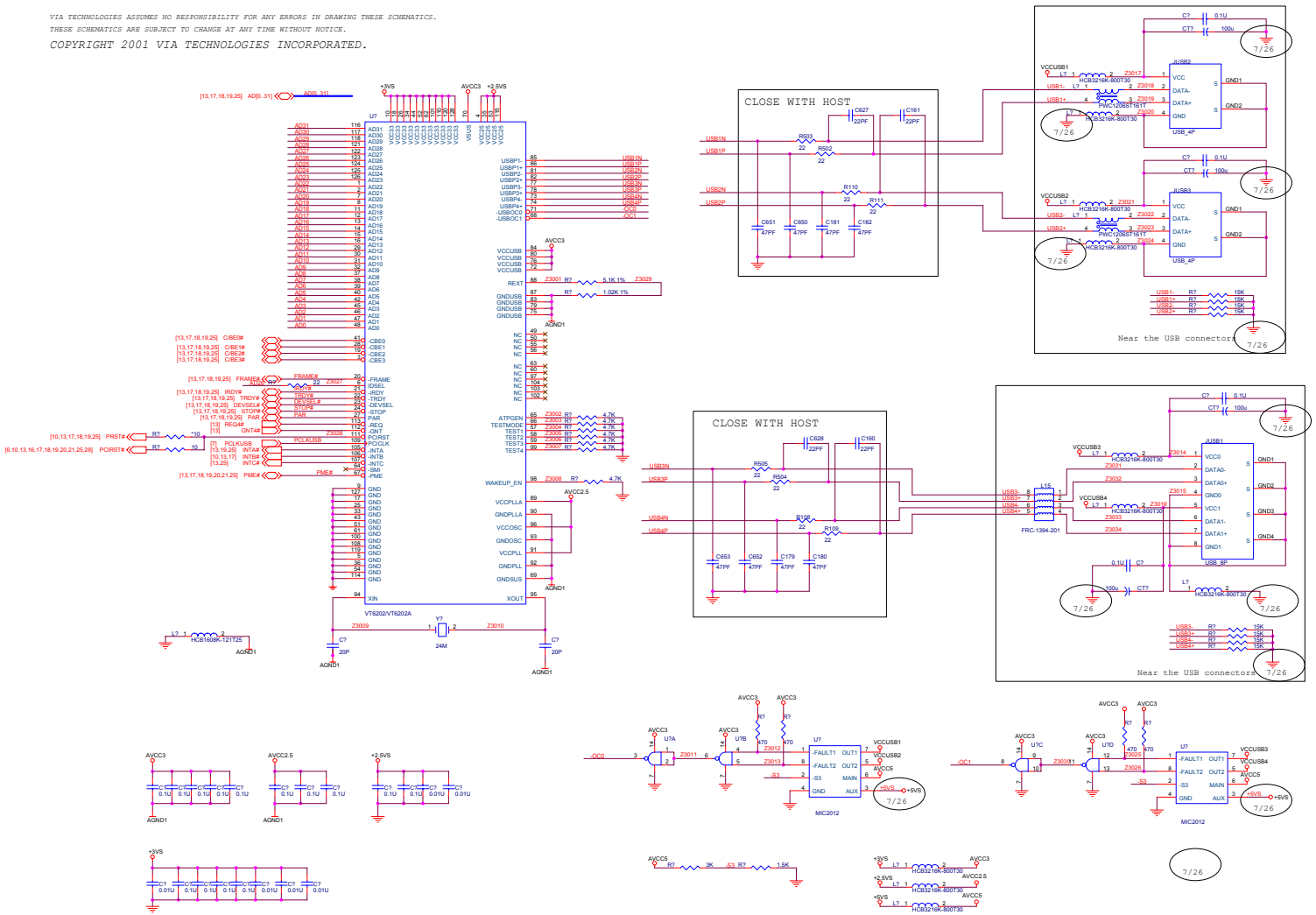

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USB 2.0