

SABRE

SYSTEM

User's Manual

Congratulations on your purchase of this Sabre System product!

You have purchased a high quality, highly scalable basis for your computing needs.

You will find that the Sabre system has the following advantages:

- Attractive, simple, intuitive design for use at home, in the office, etc
- Standard interfaces for a host of peripherals, allowing for maximum device connectivity
- Minimal footprint, freeing up valuable desktop real estate
- Fully configurable and highly scalable hardware configurations for both flexibility and performance
- And much more...

Please read this user's manual carefully before unpacking and setting up your computer.

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AC PLUG CORD PRECAUTIONS FOR THE UNITED KINGDOM
FOR YOUR SAFETY PLEASE READ THE FOLLOWING TEXT CAREFULLY

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET THEN THE PLUG SHOULD BE CUT OFF AND DISPOSED OF SAFELY.
THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO AN INAPPROPRIATE SOCKET.
If a new plug is to be fitted, please observe the wiring code as shown below.
If in any doubt, please consult a qualified electrician.
WARNING: THIS APPLIANCE MUST BE EARTHED.

IMPORTANT: The wires in this mains cable are coloured in accordance with the following code:

Green-and-YellowEarth
Blue:Neutral
Brown:Live

If the coloured wires of the mains cable of this appliance do not correspond with the coloured marking identifying the terminals in your plug, proceed as follows:
The GREEN-AND-YELLOW wire must be connected to the terminals in the plug marked with the letter E or by the Earth symbol or colored GREEN or GREEN-AND-YELLOW.
The BLUE wire must be connected to the terminal in the plug marked with the letter N or colored BLACK. The wire which is colored BROWN must be connected to the terminal in the plug marked with the letter L or colored RED.

IMPORTANT NOTICE CONCERNING POWER CORD SELECTION

The power cord set for this unit has been enclosed and has been selected according to the country of destination and must be used to prevent electric shock. Use the following guidelines if it is necessary to replace the original cord set, or if the cord set is not enclosed.

The female receptacle of the cord set must meet CEE-22 requirements and will look like Figure 1 below:



Figure 1

For the United States and Canada

In the United States and Canada the male plug is NEMA5-15 style (Figure2), UL listed, and CSA labeled. For units that are mounted on a desk or table, type SVT or SJT cord sets may be used. For units that sit on the floor, only SJT type cord sets may be used. The cord set must be selected according to the current rating for your unit. Please consult Table A below for the selection criteria for power cords used in the United States and Canada.



Figure 2

For European Countries

In European you must use a cord set which is appropriate for the receptacles in your country. The cord set is HAR-Certified, and a special mark will appear on the outer sheath, or on the insulation of one of the inner conductors.

If you have any questions concerning which power cord to use, please consult with the dealer from whom you have purchased your Sabre system.

Table A

Cord Type	Size of Conductors In Cord	Maximum Current Rating of Unit
SJT	18 AWG	10 Amps
	16 AWG	12 Amps
	14 AWG	12 Amps
SVT	18 AWG	10 Amps
	17 AWG	12 Amps

Important Safety Instructions

Read these instructions carefully and save them for future reference.

1. Follow all warnings and instructions marked on the product.
2. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
3. Do not use this product near water.
4. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to it.
5. Slots and openings in the cabinet and the back or bottom are provided for ventilation; to ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered. The product should never be placed near or over a radiator or heat register, or in a built-in installation unless proper ventilation is provided.
6. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
7. Do not allow anything to rest on the power cord. Do not locate this product where persons will tread on the cord.
8. If an extension cord is used with this product, make sure that the total ampere rating of the equipment plugged into the extension cord does not exceed the extension cord ampere rating. Also, make sure that the total rating of all products plugged into the wall outlet does not exceed the fuse rating.
9. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could resulting a fire or electronic shocks. Never spill liquid of any kind on the product.
10. Use at least No. 26 AWG wire for the telephone cable.
11. Unplug this product from the wall outlet and refer it for servicing to qualified service personal under the following conditions:
 - a. When the power cord or plug is damaged or frayed.
 - b. If liquid has been spilled into the product.
 - c. If the product has been exposed to rain or water.
 - d. If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions, since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal condition.
 - e. If the product has been dropped or cabinet has been damaged.
 - f. If the product exhibits a distinct change in performance, indicating a need for service.

INSTALLATION INSTRUCTIONS (For power supply)

1. The power supply can be operated at an ambient temperature of 40 °C.
2. The power supply shall be installed according to specification. The load current and output power should not exceed the following specified values.

Input: 100-120 / 200-240 V AC, 50-60 Hz, max. 2.5 / 1.25 A.

Output: +5V / 13.0 A, +12V / 1.5 A, -12V / 0.2 A, +3.3V / 8.0 A, +5USB / 1.5A, max. 120 W.
(+5V and +3.3V total power max. 92 W)
3. The power supply is a built-in component. During installation into certain equipment, the relevant requirements of EN 60 950/IEC 60 950, UL 1950 and CSA C22.2 No. 950-M95 shall be maintained.
4. The creepage distance, clearance, and thickness of insulation into certain primary and ground as well as primary and secondary circuits shall comply with the current requirements of EN 60 950/IEC 60 950, UL 1950 and CSA 950-M95.
5. Leakage current shall not exceed 3.5 mA.
6. The power supply shall be provided with forced air-cooling. The minimum air flow is 14.5 CFM.
7. This power supply must be connected to the safety grounding before use.

Battery (Lithium)

NOTE: The following caution statement is located in the service and operating manual or on the label adjacent to the battery.

1. English

CAUTION: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER. DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.

2. French

IL Y A DANGER D'EXPLOSION S'IL Y A REMPLACEMENT INCORRECT DE LA BATTERIE. REMPLACER UNIQUEMENT AVEC UNE BATTERIE DU MÊME TYPE OU D'UN TYPE RECOMMANDÉ PAR LE CONSTRUCTEUR. METTRE AU RÉBUT LES BATTERIES USAGÉES CONFORMÉMENT AUX INSTRUCTIONS DU FABRICANT.

3. German

VORSICHT ! Explosionsgefahr bei unsachgemäßen Austausch der Batterie.
Ersatz nur durch denselben oder einem vom Hersteller empfohlenem ähnlichen Typ.
Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

4. Swedish

Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren. Kassera använt batteri enligt fabrikantens instruktion.

5. Danish

Lithiumbatteri- Eksplosionsfare ved fejlagtig håndtering.
Udskiftning må kun ske med batteri af samme fabrikat og type.
Lever det brugte batteri tilbage til leverandoren.

6. Norwegian

Eksplosjonsfare ved feilaktig skifte av batteri.
Benytt samme batteritype eller en tilsvarende type anbefalt av apparatfabrikanten.
Brukte batterier kasseres i henhold til fabrikantens instruksjoner.

7. Finnish

Paristo voi räjähtää, jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin.
Hävitä käytet paristo valmistajan ohjeiden mukaisesti.

FCC Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

Power Supply Cord USA

For units with 100-120V input voltage in the USA, use the following:

UL Listed and CSA Certified Type SVT or SJT No. 18/3 AWG rated at least 125 VAC 7 A, one end terminated in a molded-on parallel blade, grounding attachment cap or hooded attachment cap (15A, 125V configuration), the other end terminated in a mold-on appliance coupler.

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Chapter1

Unpacking

Before unpacking the Sabre System, prepare a suitable workspace for your computer. Provide a steady, level and clean surface, near an electrical wall outlet. Also ensure that the computer has enough space around it to allow for airflow, especially at the rear of the computer near the fan. If the computer does not have enough ventilation, internal components can become overheated and may become damaged.

When opening the box of the computer, make sure not to damage the box, as you may need to keep it and all packing material for future shipping needs.

Unpacking the box, make sure the following components are included in the box and are in good condition. If you find that any of these components are missing or appear damaged, please contact the system dealer immediately.

Checklist:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Sabre System Unit | <input checked="" type="checkbox"/> CD-ROM Screws (Optional) |
| <input checked="" type="checkbox"/> Foot Stand | <input checked="" type="checkbox"/> CD-ROM Cable (Optional) |
| <input checked="" type="checkbox"/> AC Power Cord | <input checked="" type="checkbox"/> Audio Cable (Optional) |
| <input checked="" type="checkbox"/> CPU Heat Sink | <input checked="" type="checkbox"/> Support Software Drivers |
| <input checked="" type="checkbox"/> HDD Screws | <input checked="" type="checkbox"/> This User's Manual |
| <input checked="" type="checkbox"/> HDD Cable | |

System Overview

Front Panel

Features are shown in [Figure 2.1], and are described as following.

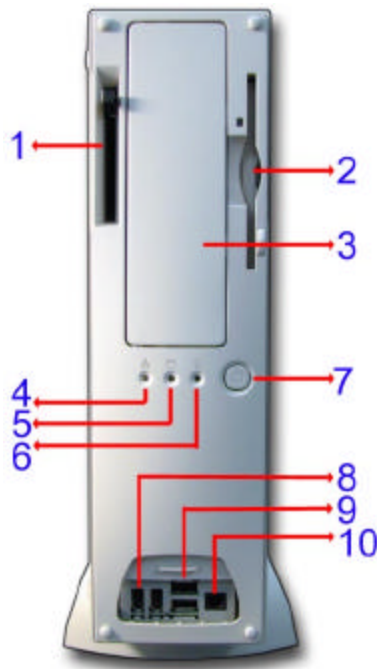


Figure 2.1

1. **PCMCIA card ejector button and card slot:**
PCMCIA cards can be inserted in this slot for added functionality.
2. **Floppy disk indicator light, drive door, and ejector button:**
The drive accepts 3.5-inch floppy disks.
3. **CD-ROM drive door:**

The door provides access to the 5.25-inch CD-ROM drive. The door is easily removable for easier access to the CD-Rom drive. It can be removed with a short sharp tug, and replaced by slotting the holes on the door over the hinge knobs on the front cover, as shown in [Figure 2.2.1], [Figure 2.2.2], and [Figure 2.2.3].

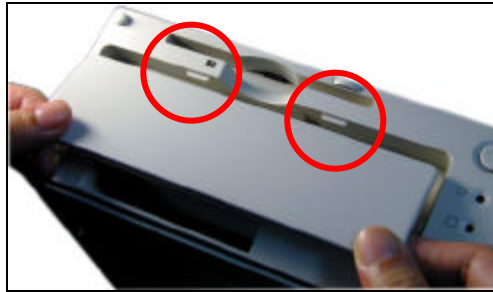


Figure 2.2.1



Figure 2.2.2

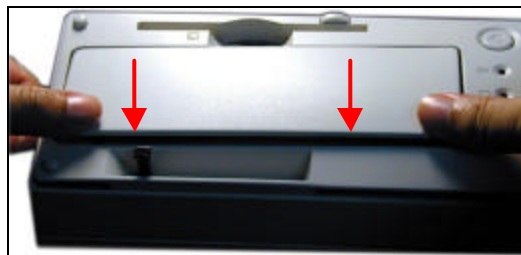


Figure 2.2.3

4. **LAN LED:**
When lit, this amber LED indicates that the unit is currently online or connected to a network.
5. **Hard disk drive LED:**
This LED lights up green to indicate that the hard drive is being accessed. And there are two blinking mode you can see: Fast and Slow.
6. **Power LED:**
When lit, this green LED indicates that system power is on.
7. **Power switch:**
Press this button to turn the Sabre on and off. If the button is held down for one second, the unit will enter Suspend mode, and if held down for four seconds, unit power will switch off.
8. **1394 port x 2: (Optional)**
Use these two ports to connect 1394-type devices.
9. **USB port x 2:**
Two USB devices can be connected at these ports; there are a further two on the rear of the computer – see below.
10. **SPDIF x1:(Optional)**
Use this port to connect a SPDIF-type device to the Sabre.

Rear Panel

Features are shown in [Figure 2.3], and are described clockwise from top left.

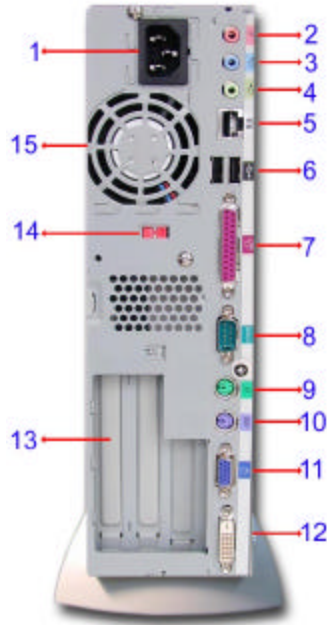


Figure 2.3

1. **Power socket:**
Connect the power cord to this socket, ensuring that it is connected to a stable AC power source.

⚠ CAUTION:
Before you plug the AC Outlet, you must first check the voltage toggle switch setting is appropriate for your geographical area.
2. **Microphone jack (pink):**
Plug the microphone into this jack for recording or voice-control functions.
3. **Line In jack (blue):**
Connect audio sources such as tape players to this jack for recording on your computer or playback through the Line Out device.
4. **Line Out jack (green):**
Connect audio devices such as headphones or speakers to this jack.

5. **Ethernet Connector (RJ-45):**
Your RJ-45 LAN connector can be plugged into this socket.
6. **USB port x 2:**
Connect USB peripheral devices to these ports to take advantage of the universal functionality and flexibility of Plug and Play technology.
7. **Parallel port (purple):**
Parallel devices such as a printer or scanner can be connected to this port.
8. **COM1 port (aquamarine):**
Connect serial (RS232) devices such as a modem to this port.
9. **PS/2 Mouse Connector (green):**
Plug your PS/2 mouse into this connector.
10. **PS/2 Keyboard Connector (purple):**
Plug your PS/2 keyboard into this connector.
11. **D-Sub Monitor (blue):**
Connect your display monitor to this socket.
12. **DVI display device port: (Optional)**
An advanced DVI display device can be plugged in to this connector.
13. **Expansion slot covers:**
These covers can be removed to install add-on cards, as described later.
There includes three expansion PCI slots, one of them is "low profile " expansion PCI slot.
14. **Voltage toggle switch:**
This toggle switch allows you to select the system voltage (115 / 230 V) appropriate to your area.
15. **Power supply fan:**
The fan is used to cool the internal AC power supply. Ensure that the fan has free air flow at all times.

Foot Stand

The Sabre includes a foot stand into which the Sabre unit can be slotted to keep it upright and stable during use, as shown in [Figure 2.4].



Figure 2.4

Assembling / Disassembling

Removing the Case Cover

- i. Lay the unit flat, such that the CD-ROM door hinges are at the bottom of the door opening.
- ii. Remove the three screws, on tabs (top, left, right), that secures the cover, as shown in [Figure 3.1.1].



Figure 3.1.1

- iii. Pull the cover back slightly (approx. 1 cm / 1/4 in) then lift it upwards and outwards from the front of the unit to remove it, as shown in [Figure 3.1.2].



Figure 3.1.2

Perform the above steps in reverse order to replace the cover.

Removing the Front Cover

- i. Gently lift the three tabs as shown in [Figure 3.2] below.

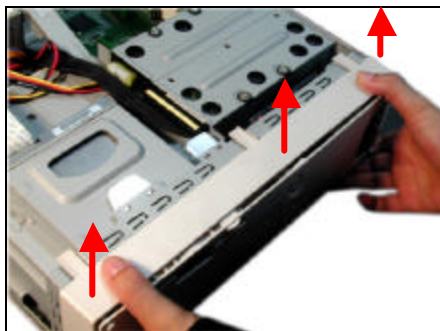


Figure 3.2

- ii. Tilt the front cover downwards and ease it away from the front of the unit, as shown in [Figure 3.2] above.

Perform the above steps in reverse to replace the front cover.

Installing/Uninstalling the hard disk drive

- i. Remove the metal rack from the Sabre system frame by loosening the two screws on the end away from the system's side, as shown in [Figure 3.3.1].

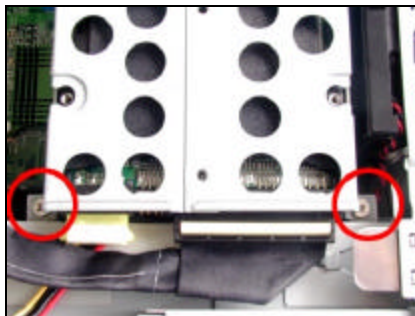


Figure 3.3.1

- ii. Loosen the screws, two one each side, as shown in [Figure 3.3.2] for removing the HD metal bay. And now, you can insert a new HD into this rack and fix it in position.

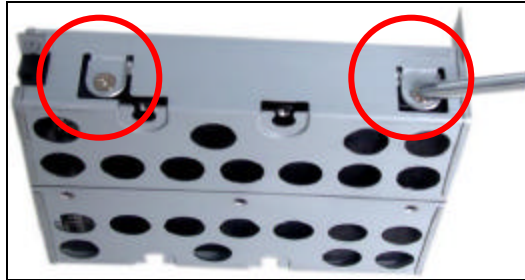


Figure 3.3.2

- iii. Slot this structure into position in the Sabre unit, taking care to orient it correctly.
- iv. Fix it in position by screwing the tabs at the connector end to the unit frame, again as shown in [Figure 3.3.1] above.
- v. Plug in the **P3** connector of the power cord and the IDE cable connector into the appropriate sockets on the hard drive. The other end of the IDE cable connector please plug into the primary IDE connector on the motherboard (blue color).

It is advisable to connect the IDE cable after the power cable, as the stiffer IDE cable will hold down and protect the soft-sheathed power cable, as shown in [Figure 3.3.3].



Figure 3.3.3

To remove the hard disk drive, repeat steps (ii.) to (v.) above in reverse order.

Installing/Removing the CPU

You need to remove the HD Holder and Air Flow Guide (AFG) first, before you place the CPU.

- i. Orient the CPU with the socket.
- ii. Place the CPU on the Zero Insertion Force socket, as shown in [Figure 3.4.1] below. It should slide into place without the use of force.

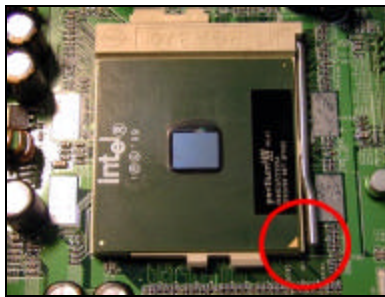


Figure 3.4.1

- iii. Pull down the socket lever and click it into its latch at the side of the socket, as shown in [Figure 3.4.1] above, to lock the CPU in position.
- iv. Clip the heat sink, using a screwdriver to hook the heat sink clip from the clips on the CPU socket, as shown in [Figure 3.4.2] below.

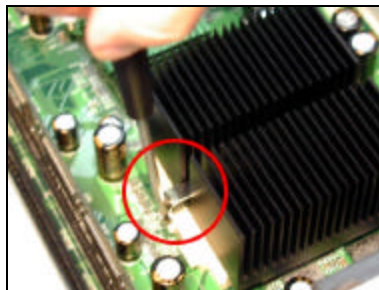


Figure 3.4.2

- v. Slide in the Air Flow Guide (AFG) into the Sabre unit frame, as shown in [Figure 3.4.3] below.

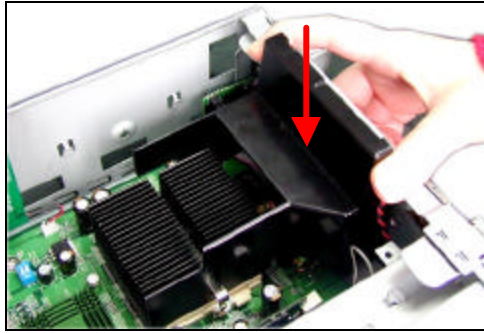


Figure 3.4.3

To remove or replace the CPU, perform the above steps in reverse order, making sure to align the notch in the center of the heat sink with the clips on the CPU socket.

Installing/Removing RAM

- i. Align notches in RAM modules with the socket.
- ii. Insert RAM modules, the first in socket DIMM1, and the second, if present, in DIMM2.
- iii. Press the module into the appropriate slot carefully but firmly. The clips at either end of the connector will lever upwards and latch into place to retain the module when it is installed correctly, as shown in [Figure 3.5.1].

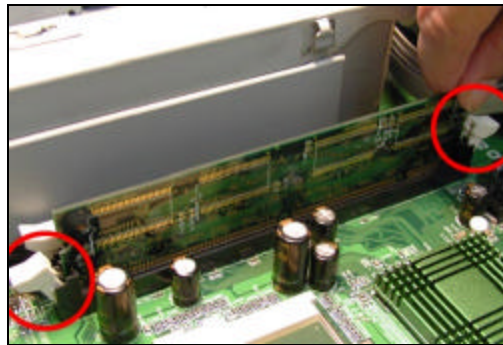


Figure 3.5.1

Repeat the above steps in reverse order to remove the RAM modules.

Installing/Removing the CD-ROM drive

- i. Remove the CD-ROM rack by pressing together the metal two clips at the front of the CD-ROM bay, as shown in [Figure 3.6.1], and pulling the rack out from the front of the unit.



Figure 3.6.1

- ii. Insert the CD-ROM into its rack, making sure to align the screw holes on the device with the rear set of holes on the rack, and screw it in position, as shown in [Figure 3.6.2].

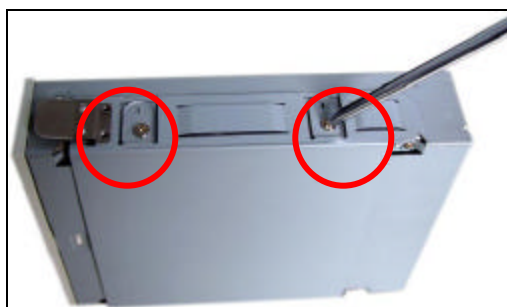


Figure 3.6.2

- iii. Slot the rack into position in the Sabre unit.
- iv. Plug in the **P2** connector of the power cord, the IDE cable and the audio line (gray color) into the appropriate sockets, as shown in [Figure 3.6.3]. This is easier if the CD-ROM rack is not fully in position. The other end of the IDE cable connector please plug into the secondary IDE connector on the motherboard (white color).



Figure 3.6.3

To remove the CD-ROM, repeat the above steps in reverse order, again removing the CD-ROM rack by pressing together the clips at its front.

Installing/Removing floppy disk drive

- i. Press the clip at the top of the floppy disk rack, as shown in [Figure 3.7.1], and pull the rack out from the Sabre system frame.



Figure 3.7.1

- ii. Insert the floppy disk drive into the rack and screw it in position.
- iii. Slide and slot the rack from the inside of the Sabre unit towards the outside (front) so its clicks into position, as shown in [Figure 3.7.2].

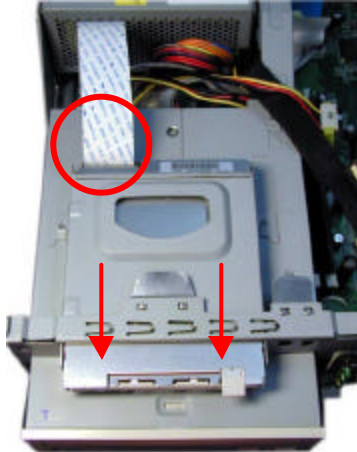


Figure 3.7.2

- iv. Connect the FDD (data transfer) cable, as shown in [Figure 3.7.2].
Repeat the above steps in reverse order to remove the floppy disk drive.

Installing expansion cards

- i. Undo the screw on the left-hand side of the Sabre unit, as shown in [Figure 3.8.1] below.

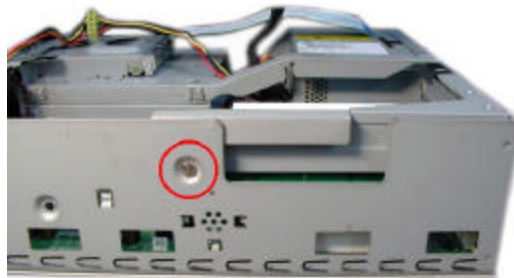


Figure 3.8.1

- ii. Remove the riser card out.
- iii. Lift the black tab on the riser card to open the expansion card slot covers, as shown in [Figure 3.8.2] below.

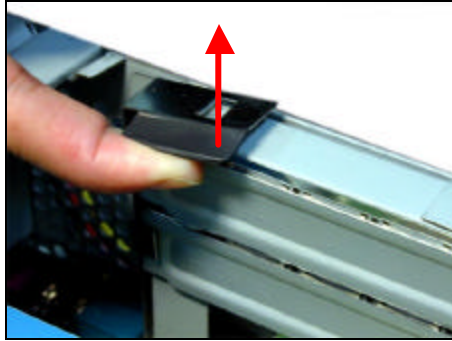


Figure 3.8.2

- iv. Slot the expansion card into the connector on the riser card, and please insert the Low Profile Card into the PCI3 slot, as shown in [Figure 3.8.3].

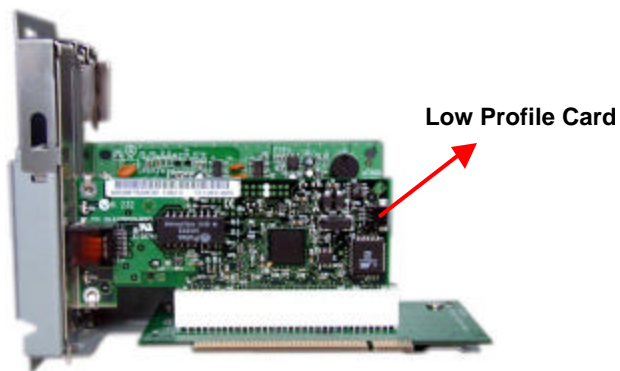


Figure 3.8.3

- v. Replace the riser card in, making sure that its connector slots into the socket on the motherboard.
Perform the above steps in reverse order to remove or replace expansion cards.

P2 and P3 connector of the power cord

The P3 connector of the power cord is for you to plug into the power socket on the hard drive, and the P2 connector is for the CD-ROM, as shown in [Figure 3.9.1].

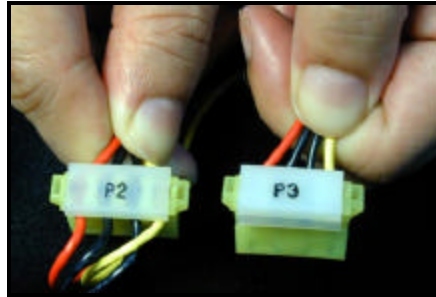
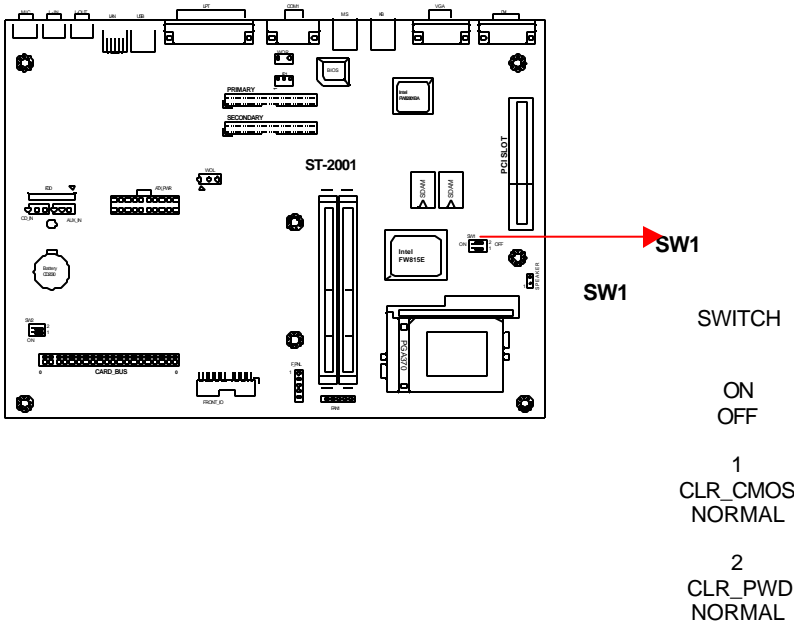


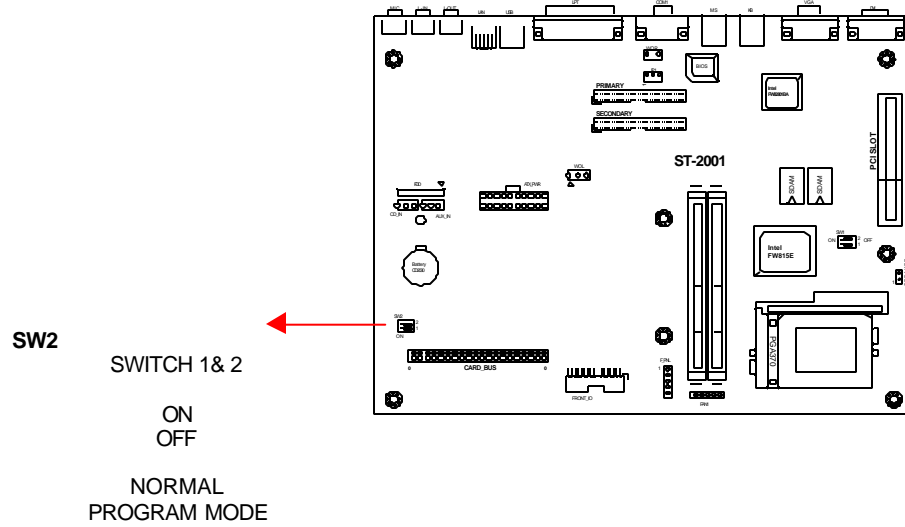
Figure 3.9.1

Motherboard Nomenclature

Switch 1 Jumper Settings:



Switch 2 Jumper Settings:



Chapter5

System Specifications

Product features

CPU	<ul style="list-style-type: none">• Socket 370 processors:• Intel FC-PGA Celeron / PIII processor 1.1GHz• FSB frequencies supported: 66/100/133MHz• Frequency ratio: Auto detect by CPU
System memory	<ul style="list-style-type: none">• PC 100/133 168 pin SDRAM x 2• Capacity: 32 - 512MB• ECC support: No
LAN	<ul style="list-style-type: none">• Intel 82562 Kinnereth 10/100 Mbps w/ WOL
Drive bays	<ul style="list-style-type: none">• 3.5" standard HDD drive x 1• 5.25" standard CD-ROM / DVD-ROM / CD-RW Drive x 1• 3.5" slim FDD drive x 1
Expansion cards	<ul style="list-style-type: none">• 3 PCI slots (one low profile PCI)
Front panel	<ul style="list-style-type: none">• PCMCIA type II x 1,• USB port x 2,• IEEE1394 x 2 (6 pin x 2),• Optical SPDIF connector x 1
Back panel	<ul style="list-style-type: none">• USB port x 2• RJ45 LAN connector x 1• D-Sub VGA port x 1• DVI (D) port x 1 (optional)• Mic In, Line in, Line Out x 1• PS/2 keyboard, mouse x 1• Parallel port x 1• Serial port x 1• AC inlet x 1

Technical specifications

Dimensions	<ul style="list-style-type: none">• 360(D) x 310(H) x 90(W) mm
Power Supply F/F	<ul style="list-style-type: none">• Proprietary 120 W/PFC• Dimensions: 135 mm x 105 mm x 61 mm
Environment Air Temperature	<ul style="list-style-type: none">• Operating: 5°C to 35°C / Storage: -20°C to 65°C
System Operating Environment	<ul style="list-style-type: none">• The recommended system operating room temperature is between 5°C and 35°C. In the event that the system is to function as a workstation or server, it is imperative that periodic inspection of the CPU fan and the power supply fan be undertaken. Please consult the local dealer for more information.
Humidity	<ul style="list-style-type: none">• Operation: 0% to 80%• Storage: 0% to 95%

PAPER NOT BLEACHED WITH CHLORINE.



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