

Sabio Digital SD-KN1

Notebook Assembly Guide



Rev. 1.4

Table of Contents

Section 1.0 - Overview	3
Section 2.0 - Before You Begin	3
Section 3.0 - Barebones Package Contents	3
Section 3.1 - Screw Kit Contents	4
Section 4.0 - System Component Locator	5
Section 5.0 - CPU, Thermal Module, & Discrete Graphics Installation ...	6
Section 6.0 - Memory Module Installation	7
Section 7.0 - Keyboard Installation	8
Section 8.0 - Hard Disk Drive Installation	10
Section 9.0 - Installing the Optical Disk Drive	11
Section 10.0 - Wireless LAN Module Installation	11
Section 11.0 - Battery Pack Installation and Removal	11

Copyright 2005, Sabio Digital, Inc.
5125 Convoy Street, Suite 205
San Diego, CA 92111
Office 858-715-0070 – Fax 858-225-3445
<http://www.sabioproducts.com>

Section 1.0 - Overview

The purpose of this manual is to provide step-by-step assembly instructions for the Sabio Digital KN1 "barebones" whitebook PC manufactured by Quanta Computer. The KN1 is a flexible, configurable platform allowing the system builder to quickly and easily install major components including:

- ❑ CPU and Thermal Module
- ❑ Hard Disk Drive
- ❑ Optical Disk Drive
- ❑ Wireless LAN Module
- ❑ Memory Module(s)
- ❑ Keyboard

Section 2.0 - Before You Begin

- ❑ Prepare ample work bench space that is clean and free of obstructions. Use of proper electrostatic discharge equipment including floor mat, bench mat, and ESD wristband is highly recommended to avoid damaging the notebook's motherboard and/or primary components.
- ❑ Make sure the notebook is disconnected from any power source.
- ❑ When installing or upgrading components, always remove the battery pack for the unit. To remove the battery pack, simply slide and hold the battery latch and remove the battery by lifting up and out.
- ❑ Always use the appropriate tools. Although the primary tool required for assembly is a No. 1 Phillips head screw driver, we recommend also using a single-slot screwdriver for unlocking and locking flexible cable connectors, and a pair of tweezers to insert and remove flexible cables.

Section 3.0 - Barebones Package Contents

Every Sabio Digital barebones system comes complete with the following system and system components:

- ❑ KN1 Barebones System*
- ❑ Screw Kit
- ❑ CPU Thermal Module
- ❑ Keyboard
- ❑ Hard Disk Drive Kit
- ❑ Optical Disk Drive
- ❑ AC Adapter
- ❑ Power Cord
- ❑ RJ11 Modem Cable
- ❑ Driver Disk
- ❑ Assembly Guide

Check package contents to ensure that all parts have been included. If any parts are missing, please contact Sabio Digital at 858-715-0070 or send an email to support@sabioproducts.com. In addition, drivers and a downloadable version of this manual are available at <http://www.sabioproducts.com>.

**Barebones System includes upper and lower chassis, motherboard, and LCD. CPU, memory, wireless card, and hard disk drive are supplied by the system builder.*

Section 3.1 - Screw Kit Contents

The screw kit consists of the following type and sizes of screws:

Description	Part Number	Quantity
KN1 Screw Kit	1HYEZZZ04Z7	1
Discrete Graphics (M2.0x4.0-NI Nylock)	MM20040ICI8	6
Standard Integrated Graphics (M2.0x4.0)		1
Hard Drive Assembly (M3.0x0.5+3.5I)	MS30035I354	4
HDD Cover, KB, ODD (M2.5x6.0-I Nylock)	MM25060IL69	5
KB Cover Assembly (M2.5x11.0-I Nylock)	MM25110IL60	1

Discrete graphics screws are for optional discrete graphics card. The standard integrated graphics option only requires one screw to secure the module.

Section 4.0 - System Component Locator

Illustrations 4a and 4b highlight the locations of the major components and sub-assemblies of the Quanta KN1 notebook:



Illustration 4a – Bottom View

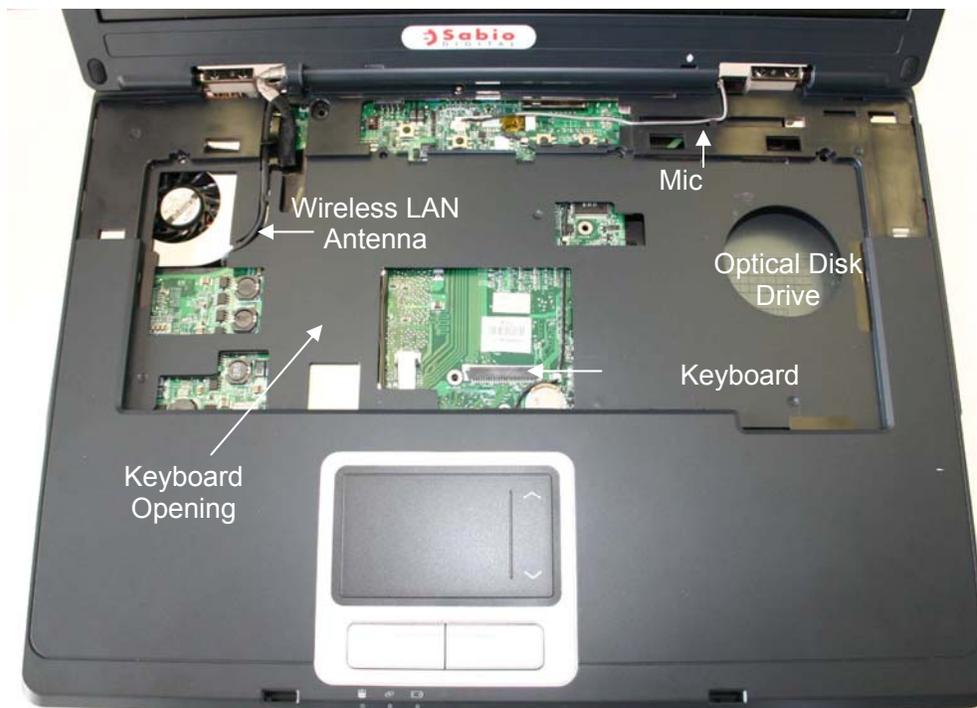


Illustration 4b – Top View

Section 5.0 – CPU, Thermal Module, and Discrete Graphics Installation

Follow these steps to install the CPU, thermal module, and optional discrete graphics card on the Quanta KN1 notebook:

1. Be sure that power is disconnected and the battery pack is removed.
2. Lay notebook bottom-side up. The CPU, thermal module, and discrete graphics assemblies are accessed from the bottom of the unit.
3. Remove cover plate using a small Phillips screwdriver.
4. Make sure the CPU socket is in the unlocked position by turning captured screw head fully counter-clockwise.
5. Carefully place CPU on socket connector. Align arrow printed on top of the CPU module with corresponding arrow on socket connector.
6. Lock CPU into place by turning the captured screw head clockwise until it stops. *Do not tighten!*
7. For KN1 units with discrete graphics, install the discrete graphics card by inserting the card into the graphics card connector. Install before installing the CPU thermal module. (#1, Illustration 5)
8. Align Thermal Module on top of CPU module and secure using three captured screws (#2, Illustration 5)
9. Connect CPU fan wire from the Thermal Module to motherboard connector. (#3, Illustration 5)
10. Secure the graphics card to the unit by fastening six screws (M2.0 x 4.0-NI Nylock) with a Phillips screwdriver. (#4, Illustration 5)



Illustration 5 – CPU, Thermal Assembly, and Discrete Graphics

11. Install memory module(s) before replacing CPU thermal assembly cover. (See Section 6.0 – Memory Module Installation)

Section 6.0 - Memory Module Installation

There are two memory expansion SODIMM slots on the SD-KN1 notebook, and the notebook comes standard with no memory installed. The memory capacity is upgradeable up to 2GB using two 1025MB memory modules. To install a memory module follow these basic steps:

1. Remove memory module cover (same as the CPU thermal module cover) on the bottom of the notebook using a small Phillips screwdriver.
2. Notice that each memory module is keyed and can be only installed properly by aligning the notches of the module with the guides in the SODIMM connector.
3. Insert the memory module at a 45-degree angle into the connector and press down until the module clicks into place. (Illustration 6)
4. Replace memory module cover.



Illustration 6 – Insert memory module at 45-degree angle

Section 7.0 - Keyboard Installation

The keyboard is packaged separately and must be installed by the system builder. To install the keyboard, follow these instructions:

1. Open up the notebook completely so that the LCD is level with the lower bottom chassis. This will provide unobstructed access for removing the keyboard cover (or also commonly referred to as the "C" surface). (Illustration 7a)
2. Using a small flathead screwdriver, insert the tip of the screwdriver between the keyboard and the keyboard cover in the area under the email hotkey button and gently pry up the cover. This will cause the cover to pop up far enough where it can be removed completely by hand.



Illustration 7a – Keyboard Cover

3. Check to see that the flat cable connector on the motherboard is in the unlocked position (#1 & #3, Illustration 7b)

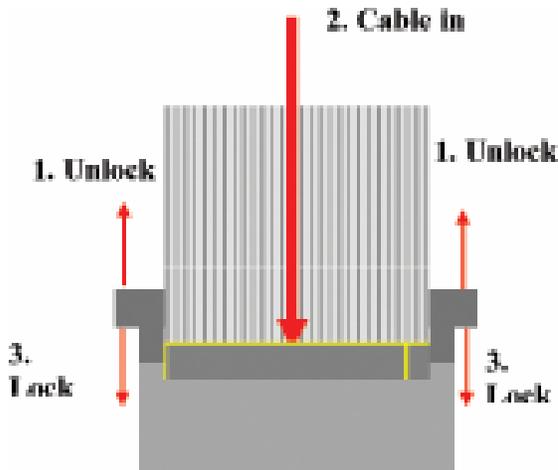


Illustration 7b – Keyboard Cable Connector

4. With the keyboard lying on top of the palm rest, insert the keyboard cable into the keyboard connector on the motherboard. (#2, Illustration 7b)
5. Lock keyboard connector on each end by hand or with a small flathead screwdriver. (#1 & #3, Illustration 7b)

6. Position keyboard flat into the keyboard opening and slide into place under the two side latches. (Press right "Ctrl" key to aide in positioning.)
7. Fasten two screws (M2.5x6.0-I) on top of keyboard to lock the keyboard into the chassis.
8. Turn unit upside down and fasten one screw (M2.5x11-I Nylock) to the bottom case to secure the keyboard from underneath the chassis. The keyboard screw can be found by looking for the "K" label as shown in Illustration 7d
9. Replace the keyboard cover by gently snapping it into place.
10. Re-fasten two screws (M2.5x4.0) to the back (port side) of each hinge to secure the keyboard cover as shown in Illustration 7e.

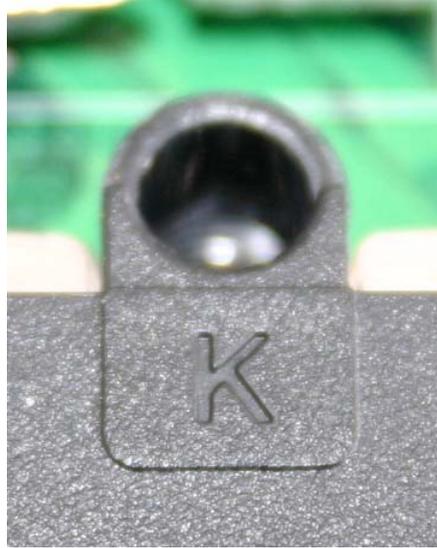


Illustration 7d – Keyboard Screws



Illustration 7e– Location of Keyboard Hinge Screws

Section 8.0 - Hard Disk Drive Installation

Installing the hard disk drive is a two-step process. The first process involves assembling the hard disk drive into a kit. The second step is to install the assembled hard disk drive kit into the lower chassis.

Section 8.1 - Assembling the Hard Disk Drive Kit

1. Remove the hard disk drive kit from unit by unscrewing the two screws that secure it to the notebook chassis.
2. Place the hard disk drive into the kit tray making sure that the screw holes are aligned properly with screw holes in the tray. (Illustration 8a)
3. Fasten four screws (M3.0x0.5+3.5I), two on each side, to attach the hard disk drive to the tray. (Illustration 8b)

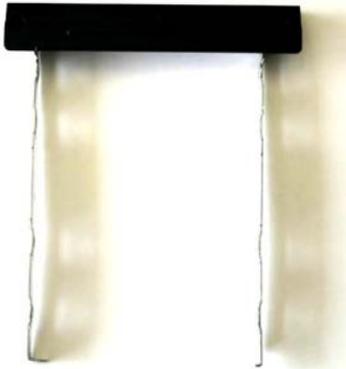


Illustration 8a – HDD Tray

Illustration 8b – Location of Tray Screws

Section 8.2 - Installing the Hard Disk Drive Kit into the Notebook

1. Once the hard drive kit has been assembled, carefully push the kit into the drive bay until it is connected.
2. Tuck the plastic tab used for removing the hard disk drive module away to prevent it from interfering with the hard drive door.
3. Using a small Phillips screwdriver, secure the hard drive by re-fastening two screws (M2.5x6.0-I) to the hard drive door. (Illustration 8c)

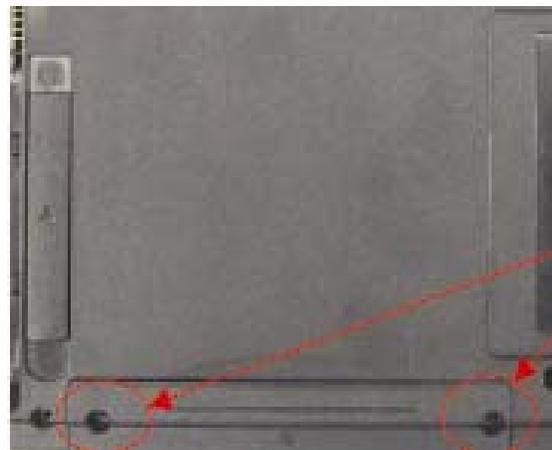


Illustration 8c – Cover Screws

Section 9.0 - Installing the Optical Disk Drive

To install, simply slide the optical disk drive into the optical disk drive module located on the right side of the lower chassis until it locks into place.

Section 10.0 - Wireless LAN Module Installation

1. Remove the wireless LAN module cover located on the bottom of the lower chassis by unfastening the screw.
2. Install the wireless LAN module into the Mini-PCI slot by inserting the card at a 45-degree angle into the slot. Like memory modules, the wireless LAN card is keyed and can only be correctly inserted one way.
3. Gently press down on the card to seat it in the connector.
4. Make sure that the two tabs on either side of the card are inserted into the slots.
5. Connect the black and white antenna wires to the connectors on the wireless LAN card by carefully matching the black wire to the "main" connector and the white wire to the "aux" connector. Carefully arrange the antenna cable on top of the module. (#1, Illustration 10a) Do not place it on the motherboard. (#2, Illustration 10a)
6. Replace the cover and re-fasten cover screw.



Illustration 10 – Wireless LAN

Section 11.0 - Battery Pack Installation and Removal

1. To install the battery pack, turn the notebook upside down and slide it in until it locks into place.
2. To remove the battery pack, turn the notebook upside down and at the same time, slide the battery latch open and then lift out the battery pack.