

BM02

Manual



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	Model Number: BM02
	Revision: V1.0

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Preface

The information in this user's manual has been carefully reviewed and is believed to be accurate. HUNSN assumes no responsibility for any inaccuracies that may be contained in this document and makes no commitment to update or to keep current the information in this manual, or to notify any person or organization of the updates.

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Precautions

Using the Device

1. Please use the external power adapter that comes with the original machine. Do not connect any other power supply to prevent the motherboard from being burned out.
2. When connecting to HD HDMI, do not connect or unplug the HDMI cable after turning on the computer. You must connect it and turn on the computer and TV to prevent the TV from being burned out.
3. Dual HDMI should not be connected at the same time, unless you are more proficient in computer settings, and a separate connection is more convenient for your use.
4. In the process of using the shell surface is relatively hot, it is a normal phenomenon, the fanless computer uses the chassis to dissipate heat, the surface temperature is the same as the CPU, and the hand feels that the heat is normal, without any influence on the stability and life of the machine, and can be used with confidence.

Storing the Device

1. Temperature: -20°C ~ 70°C
2. Temperature change < 10°C Celsius / hour
3. Humidity: 10% ~ 90% (No condensation)
4. When the ambient temperature reaches 60°C, the ambient humidity should be below 20%.



WARNING: There is danger of explosion if the CMOS battery is replaced incorrectly. Disposal of battery into fire or a hot oven, or mechanically crushing or cutting of a battery can result in an explosion.

About HUNSN

Focus on the development of computer hardware and become the driving force of artificial intelligence to change the world

Overview

Shenzhen Shi Han Song Ke Ji You Xian Gong Si (hereinafter referred to as "HUNSN") is a high-tech enterprise approved and registered by relevant state departments. The company focuses on the research and development, production and sales of products in the computer subdivision field. Products include fanless industrial computers, industrial touch all-in-one computers, embedded fanless computers, mini pcs, multi-network-port network security servers, computer motherboards, all-aluminum small cases, etc. Our products have been widely used in industrial control, energy, medical, education, telecommunications, multimedia, network security, intelligent traffic control, finance, power, environmental protection, automation equipment and many other fields, and it is one of China's outstanding innovative computer technology IT high-tech enterprises.

Experience

HUNSN attaches great importance to independent R&D and innovation, and has more than 10 years of R&D and manufacturing experience. "Focus on the development of computer hardware and become the driving force of artificial intelligence to change the world" is our glorious mission. HUNSN takes the domestic experienced R&D team as the main body, with advanced equipment and perfect service system as the guarantee, with the help of the good cooperative relationship with the upstream chip manufacturers such as Intel, and the supply chain advantage of China manufacturing, HUNSN continues to provide customers with high-quality products with leading technology and low prices.

Philosophy

The only reason of the company exists is to serve customers. "Customer-centric, creating value for customers" is the HUNSN's common value. HUNSN relies on customers and partners externally, and internally relies on hard-working employees. It is based on the struggler and allows contributors to get a reasonable return; and builds a win-win ecological circle with partners, industrial organizations, standards organizations, universities, research institutions etc. to promote technological progress and industrial development.



Our Warranty

HUNSN warrants products to be free of defects in material and workmanship for the specified warranty period from date of shipment and this period may vary by product. During the warranty period, HUNSN will, at its option, repair or replace products that prove to be defective. Repairs or replacements are warranted for the remainder of the original warranty period or a 90 day extended warranty, whichever proves longer. Please contact HUNSN for the warranty period specific to the product purchased.

Limitations of Warranty

Warranty Void Conditions – HUNSN's limited warranty does not cover any failure(s) or defect(s) caused by but not limited to one or more of the following; incorrect installations, abuse, alterations, poor handling, misuse, accidents, improper packaging, abnormal use, excessive heat or cold, humidity, vibration, shock, power failures/surges, lightning, weather and repairs, upgrades, modifications by unauthorized sources or acts of God. Warranty does not apply to any product or part thereof where the original serial number has been altered, modified, defaced or removed. Warranty does not cover damage or loss as a result of transportation of the products.

Extended Warranty

HUNSN offers extended warranty programs for particular products which must be purchased at the time of the original product sale. Extended warranty periods of additional one and two years go into effect the first day after the original warranty period expires.

Out Of Warranty Service

The cost for repairing or replacing out of warranty items will be quoted on a time and material basis. The customer must approve of any repair charges prior to their repair being processed.

Returned Items with no Fault Found

For items that have been returned for service with no faults found a nominal service charge will apply covering diagnoses, testing, return shipping and other related costs.

Data Backup

It is the customer's sole responsibility to backup the contents of their hard drive or other media, including any data you have stored or software you have installed on storage devices. HUNSN shall not be responsible for i) any loss of data due to storage media failure, ii) for any software programs, data or other information stored or used on any media or part of any product returned to HUNSN for warranty and non-warranty servicing. If during servicing the contents of the hard disk or any other data storage media are altered, deleted, modified or lost, HUNSN shall not be held responsible. It is solely the customers/purchasers/end-users/returnees responsibility to back up any software programs, data, or information stored on any storage media or any part of a product returned for servicing.

Disclaimer of Warranty Services

In no event will HUNSN be liable for any damages, including lost profits, lost business, lost savings, downtime, or delay, labor, repair or material cost, injury to person, property, or other incidental or consequential damages arising out of use of or inability to use such product, even if HUNSN has been advised of the possibility of such damages or losses, or for any claim by any other party.

The above warranty is the only warranty authorized by HUNSN and is in lieu of any implied warranties, including implied warranty of merchantability and fitness for a particular purpose. HUNSN reserves the right to waive its warranty policy based on outstanding payments in full and/or on a timely basis as set out in the terms of the invoice.

System Overview

4th-7th Gen Intel® Core™ i7 Processor-Based Fanless Mini PC

Key Features

- Intel® 4- 7th Gen Intel® Core™ i7 BGA Processor and Intel® QS77 Chipset
- Rich I/O: 2*LAN, 2*HDMI, 4*USB 3.0, 4*USB2.0, Optical, SD Card Reader, SPK, MIC
- Dual SODIMMs for up to 16GB DDR3L Memory
- Rich Storage: mSATA SSD, 2.5 Inch SSD/HDD
- Embedded Expansion: Mini PCIe for WiFi, SIM Slot Optional for Customization

Processor Information

Model	CPU
BM02-4500U	Intel® Core™ i7-4500U 4650U Processor
BM02-5500U	Intel® Core™ i7-5500U Processor
BM02-7560U	Intel® Core™ i7-7560U Processor (DDR4 memory, DP+ HDMI dual display)

Technical Specifications

Processor	CPU	Intel® Core™ I7 4500U 4650U/ 5500U/ 7560U
	Chipset	QS77
	BIOS	AMI EFI 64M bit
Memory	Type	DDR3L 1333/1600
	Socket	SO-DIMM
	Channel	2
	Max Size	16GB
Graphic	GPU	Refer to ark.intel.com
	Resolution	2 x HDMI
Network	Controller	2 x RTL 8168/8111/8112
	Interface	2 x RJ45
I/O	USB	4 x USB3.0, 4 x USB2.0
	Audio	1 x MIC-IN, 1 x ADUIO-OUT
Wireless	Wireless / BT	1 x AC 3165 WiFi/BT
Storage	Socket 1	2 x mSATA SSD
	Socket 2	1 x 2.5" SATA 6 Gb/s SSD/HDD
	Auto Power On	By Jumper Onboard
Operation System Supported	Windows	Windows 10 Pro (64-bit)
	Linux	Support
Power	Power Type	DC-IN
	Power Adapter	12V5A
Mechanical	Dimensions	220 x 170 x 45mm
	Construction	Aluminum
	Stand	Holding Stand
Environment	Operating Temperature	0°C~70°C Centigrade (32°F~140°F)
	Relative Humidity	10%~90% (non-condensing)
Certification		CE, FCC, Rohs

Use the BM02

Interface

When using, please pay attention to the computer interface, in turn access the appropriate device.

1. There are obvious signs on the casing. The keyboard and mouse use the USB mouse and keyboard, or the use of wireless mouse and keyboard is more convenient. It can be automatically recognized by directly inserting into the back USB interface.
2. Others are network cables, display interfaces (HDMI), and Gigabit LAN power supplies. If HDMI is used, the sound is automatically output to the TV without the need to connect to a computer speaker. After all connections are made, press the switch again to turn on the power. The switch is located on the front small button.
3. If you want to use WIFI, please tighten the two random antennas to the copper joints on the body and tighten the screws until they are tightly fixed. The two antennas have better signal reception and signal strength.

Re-Installation the System

If your system feels too many junk files and slows down after a period of time, you can try to reinstall the system. U disk can be used to start and then self-installation, U disk can use Chinese cabbage to create a boot disk. If it is a CD-ROM installation, an external USB optical drive must be used. You want to buy the appropriate accessories.

During the installation process, you want to start from the U disk or from the optical drive. Just press **F11** as soon as you turn on the computer. The boot menu selection will appear. Select the U disk you want to boot or the CD drive and then press Enter.

BIOS Setup

If you want to enter the BIOS setup interface and set the call to boot, press F11/Delete immediately after booting. Select Enter Setup on the bottom of the screen to enter the BIOS setup screen. As shown below,

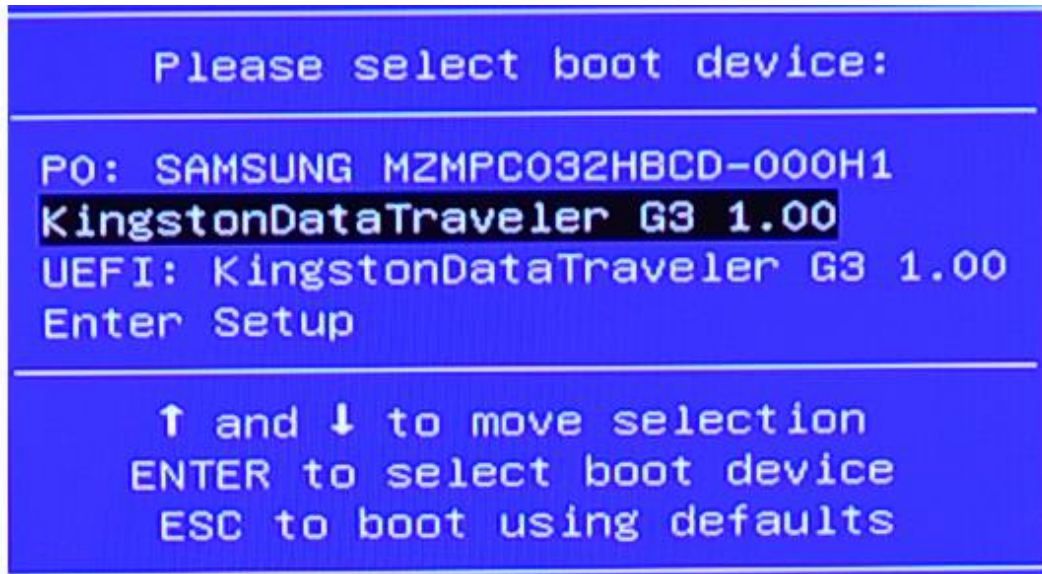


Figure 1

Auto Power on Function

For Auto Restore AC Power Loss function, contact HUNSN Customer Service (Use jumper to enable the function)

FAQ

HUNSN BM02 Mini Computer FAQ Self Solution

1. How does the computer display incomplete when connected to the TV via the HDMI cable?

All television HDMI connection to the computer for the first time will appear edge out of range. This is normal and well resolved to use the TV remote control to set the screen position or call the screen to adapt just fine, and the first time you set the TV will remember. Stayed, different brand television set menu is different, but generally are called screen adaptation or location. There is no way to find out how to set up a TV set that can call this TV manufacturer's technical service phone and ask them how to make a brand.

2. What if I use HDMI to connect the TV and then connect to the computer speakers without sound?

This is a normal phenomenon because HDMI synchronizes sound and picture. The sound has been output to the TV through HDMI. The audio interface no longer outputs sound. If you want to switch the sound to the audio output to your computer, you can set it in the control panel. Followed by: Click on the Start menu - Control Panel - Hardware and Sound - Manage Audio Devices. In this audio device management interface you can see two, one is the speaker Realtek Audio. On this single mouse right click, select Set as default device. The sound is output from the audio to the speakers. To switch to an HDMI output TV, right click on the digital audio device and select Set as Default Device.

3. What if the computer does not turn on?

Because of the highly integrated design of the machine, if the machine is not turned on, it is easy to judge the failure. First turn the machine over, remove the bottom plate after removing the bottom 4 screws, and then you can see the inside of the machine and re-access it. Take it back and try it again. The best is to have the same memory replacement. If you still lose the power after the memory is replaced, you suspect that the motherboard is faulty. Contact us.

4. If the boot can light, but can not enter the system how to re-install the system?

If the boot can be on, and immediately after the boot press the F11 keyboard, you can start the device selection interface, and can find the hard disk, you can use U disk to create a boot disk, through the official website to support the download to find the driver download, and download GHO backup Installation package, use U disk to boot and reinstall the system.

LIABILITY DISCLAIMER

HUNSN reserves the right to change this manual, and we will not notify you of subsequent changes to the product. It is not responsible for any direct, indirect, intentional or unintentional damage and hidden dangers caused by improper installation and use.

Before ordering the product, please contact HUNSN sales team to find out whether the product performance meets your needs.

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