

Step 1 Pull the socket locking lever out from the socket and then raise the lever up.



Note The motherboard might types of pin cap, Please emove the pin cap.

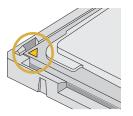


Remove the protection cap from the CPU socket and keep the cap well.





Look for the triangular cut edge on Step 3 socket, and the golden dot on CPU should point forwards this triangular cut edge. The CPU will fit only in the correct orientation.





Caution

 $Our\,\textit{RMA policy only accepts the main board comes with the cap on the CPU socket, so please and the composition of the compo$ keep the protection cap well after installation. We will not be responsible for any dan



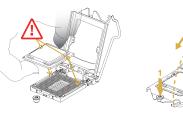
to the pin-leg of the CPU socket resulting from misplacement/loss/incorrect removal of the



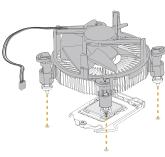
Note

- For proper installation, please kindly refer to the installation manual of your CPU heatsink



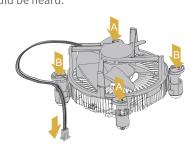


Place the CPU fan assembly on top of the installed CPU and make sure Step 5 that the four fasteners match the motherboard holes. Orient the assembly and make the fan cable is closest to the CPU fan connector. Ensure the fastener slots are pointing perpendicular to the heatsink.





Press down two fasteners at one time in a diagonal sequence to secure the CPU fan assembly in place. As each fastener locks into position a click should be heard.



- Apply the thermal interface material on the CPU before heatsink installation, if necessary.
- Do not forget to connect the CPU fan connector. For further information, please refer to



Clear CMOS Header The Occasion to Clear CMOS

- The CMOS data becomes corrupted.
- Forgot the supervisor/user password preset in the BIOS menu.
- Unable to boot up system because the CPU clock was incorrectly set in the BIOS

How to Setup Jumpers

The illustration shows how to set up jumpers. When the jumper cap is placed on pins, the jumper is "close", if not, that means the jumper is "open".









Pin Closed

Pin 1-2 Closed

2Pins Clear CMOS Procedure

- Remove AC power line.
- Set the jumper to "Pin 1-2 close", you can use a metal object like a screwdriver to touch the two pins.
- · Wait for five seconds.
- After clearing the CMOS values, be sure the jumper is "Pin 1-2 open".
- Power on the AC.
- Load Optimal Defaults and save settings in CMOS.

3Pins Clear CMOS Procedure

- Remove AC power line.
- Set the jumper to "Pin 2-3 close".
- Wait for five seconds.
- Set the jumper to "Pin 1-2 close".
- Power on the AC.
- Load Optimal Defaults and save settings in CMOS.

🥏 Driver & Manual 🥏

After you installed your operating system, please insert the Full Setup Driver CD into your optical drive and install the driver for better system performance. You will see the following window after you insert the CD.

Display the Driver page and automatically detect your system to find the corresponding driver to install.



Step 2

Click on Install and the program will begin to install the proper driver for your system.



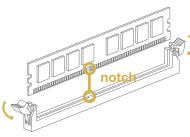


When the driver installation completes, there will be a dialogue appears asking you to restart the system. Please click on YES to restart your computer.

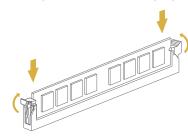
Memory Installation

- The motherboard support 2-4 memory module slot.
- Dual-channel introduction (If you do not support dual-channel motherboards, there is no such rule)
- Dual-channel operation will improve system performance.
- Dual-channel operation requires the following conditions: Both channels must have the same capacity of memory and have the same type.
- Dual-channel memory slots are the same color to help you identify pairs of slots. For better performance, plug the memory into the same color slot. (Based on actual object)

Unlock a DIMM slot by pressing the retaining clips outward. Align a DIMM on the slot such that the notch on the DIMM matches the break on the slot.



Insert the DIMM vertically and firmly into the slot until the retaining clips snap back in place and the DIMM is properly seated.





The motherboard used in the illustrations may not resemble the actual board. These illustrations are for reference only.

Power Connection

CPU Fan Power

CPU Fan Power: It supports 4-pin connector. When connecting fan cable into this connector, please note that the black wire is Ground and should be connected to pin#1(Ground).

24-pin ATX Power

24-pin ATX Power: The main power supply connector is located along the edge of the board next to the DIMM slots. Firmly plug the power supply cable into the connector and make sure it is secure.

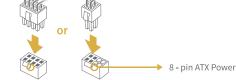


CPU Fan Power

4 or 8-pin ATX Power

4 or 8-pin ATX Power: The 4 or 8-pin ATX 12V power connector is used to provide power to the CPU. Align the pins to the connector and press firmly until seated.





Q & A of Technical Support

Q: How to get a guick response for my request on technical support?

A: Please carry out a simple troubleshooting before sending "Technical Support Form" on our website

Q: Is the motherboard dead? Do I need to return it to where I bought from or go through an RMA

A: After you have gone through the troubleshooting procedures, yet the problem still exists, or you find an evident damage on the motherboard. Please contact your reseller shop to get the

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This document contains materials protected under International Copyright Laws. All rights reserved. No part of this manual may be reproduced, transmitted or transcribed without the expressed written permission of the manufacturer and authors of this manual.

If you do not properly set the motherboard settings, causing the motherboard to malfunction or fail, we cannot augrantee any responsibility.

50-BIOINTEL-OB1-V5





 Serial ATA Cable x2 Rear I/O Panel for ATX Case x1

 Installation Guide x1 Fully Setup Driver DVD x1

Note: The package contents may be different due to area or your motherboard version.





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MOTHERBOARD INTRODUCTION

SOCKET 1150/ 1151

■ The motherboard supports Pentium®, Celeron® and Core processors in the Intel® LGA1150/1151 socket.

CHIPSET

■ The motherboard uses Intel® chipset, which has stable and innovative technology features.

PCI-EXPRESS (PCI-E) 2.0/ 3.0

■ Data transfer speed of PCI-E 3.0 is double the speed of PCI-E 2.0, can be 32Gb/s in both directions.

DDR3/ DDR 3L (BASED ON ACTUAL OBJECT)

■ DDR3/ DDR3L memory provides faster speed, higher data bandwidth, and lower power consumption.

DDR 4 (BASED ON ACTUAL OBJECT)

■ DDR4 memory provides faster speed, higher data bandwidth, and lower power consumption.

DUAL CHANNEL

Supports dual channels, providing double data bandwidth for higher system performance.

10/100 LAN

■ The motherboard integrates a 10/100 BASE-T Ethernet controller for Internet connectivity.

GBE LAN (OPTIONAL)

■ The motherboard integrates a Gigabit LAN card with maximum transmission rate of 1,000 Mbps.

SERIAL ATA II/ III

■ SATA II/ III is new-gen SATA interface, providing a transfer rate of 3Gbp/sec or 6Gbp/sec respectively.

SATA RAID (OPTIONAL)

■ SATA II/ III port provided in the chipset can use the RAID function.

USB 2.0/ 3.1(GEN1)

■ The USB2.0/ USB3.1(Gen1) interface with faster data transfer rate is compatible with older USB devices.

6/8 CHANNELS AUDIO (OPTIONAL)

■ The motherboard is equipped with a 6/8-channel audio card. The mainboard's audio interface can be set to 2/6/8-channel mode or 6-channel mode.

M.2 SLOT (OPTIONAL)

■ The M.2 slot supports the M.2 Type 2242/2260/2280 SSD module.

MOTHERBOARD INTERFACE INTRODUCTION

Control OSense OH12V OGND	CPU_FAN/CHA_FAN/SYS_FAN CPU fan/CHA fan/system fan power connector: Connect the CPU fan/CHA fan/system fan power to this connector.	VCC VCC DATA- O DATA- DATA+ O DATA+ GND O GND O NC	USB2.0 USB2.0: 4 additional USB 2.0 interfaces. The motherboard provides additional on-board USB connectors. To use this additional USB interface, you need a USB expansion interface bracket. Please contact your dealer or reseller for more
Sense — ○ +12V — ○ GND — ■	CHA_FAN/SYS_FAN System fan power connector: If you want to add another fan to the system, connect the fan interface to this connector.	MIC_L GND MIC_R O GPIO LINE_R O MIC_JD	FAUDIO Front HD audio connector: The front panel audio interface is connected to this connector. Please
DCD RXD TXD DTR	COM Serial port connector: The serial port	JACK O LINE_JD	refer to your main chassis manual for wiring the front HD audio.
GND O DSR RTS O CTS	can be used to connect modems, serial printers, remote display terminals, and other serial devices.	Speaker 00	Front Panel Host shell front panel control: HDDLED
+3.3V	ATX ATX: The 24-pin ATX power interface plug is designed to be inserted only in one direction. ATX and ATX_12V power interfaces must be used simultaneously	HDD + OO + Power LED Cool On/Off	■ PWR_LED ■ RESET ■ On/Off ■ Speaker
GND GND GND GND FS-ON GND -12V +3.3V +3.3V		GND TX+ TX- GND RX- RX+ GND	SATA Serial ATA interface: These interfaces are used to connect Serial ATA hard drives or SATA devices.
GND	ATX_12V ATX_12V: The 4/8-pin ATX 12V power interface power plug is designed to be inserted only in one direction. ATX and ATX_12V power interfaces must be used simultaneously	VBUS1 0 0 0 SSRX1- SSRX2- 0 0 GND GND SSTX1- SSTX2- 0 0 GND	USB3.0/USB3.1 (Gen1) (Optional) USB3.0/USB3.1 (Gen1): 2 additional USB 3.1(Gen1) interfaces. The motherboard provides additional on-board USB connectors. To use this additional USB interface, you need a USB expansion interface bracket. Please contact your dealer or reseller for more information.

MOTHERBOARD SPECIFICATIONS

(BASED ON ACTUAL OBJECT)

PROCESSOR

■ Support LGA1151 package Intel® Core™, Intel® Pentium®/ Celeron® processor.

MEMORY

 DDR3 1600/ 1333/ 1066 SDRAM DIMM memory socket. DDR3L 1866(OC)/ 1600/ 1333 or DDR4 2400/ 2133/ 1866 SDRAM DIMM memory socket. Supports DDR3/ DDR3L/ DDR4 memory dual channel architecture. Supports single or double sided, no buffering, no ECC check, 512MB/ 1/ 2/ 4/ 8/ 16GB.

EXPANSION SLOT

■ PCI slots that comply with the PCI V2.3 specification. PCI Express 2.0/ 3.0 PCI-E(x16)/ PCI-E(x8)/ PCI-E(x4)/ PCI-E(x1) slots.

USB

■ Integrated USB controller provides USB interface for the USB 2.0/3.1(Gen1) connectors.

ETHERNET LAN DEVICE

• Gigabit/ 100M Ethernet cards are provided by the onboard PCIE NIC controller.

SATA RAID

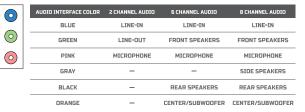
■ Provides SATA II/ III interfaces supporting high bandwidth RAID formation.

HD AUDIO

■ The onboard audio decoder chip provides 6 or 8 channel audio.

Please refer to one of the following tables for audio configuration on back panel:

AUDIO INTERFACE COLOR	2 CHANNEL AUDIO	6 CHANNEL AUDIO	8 CHANNEL AUDIO	
BLUE	LINE-IN	REAR SPEAKERS	REAR SPEAKERS	
GREEN	LINE-OUT	FRONT SPEAKERS	FRONT SPEAKERS	
PINK	MICROPHONE	CENTER/SUBWOOFER	CENTER/SUBWOOFER	
GREEN (FRONT PANEL)			SIDE SPEAKERS	L



I/O INPUT AND OUTPUT INTERFACE (OPTIONAL)

■ Supports traditional PS/2 keyboard and mouse, floppy disk, serial interface devices. Supports hardware monitoring function such as fan speed and CPU temperature.

FEATURES (OPTIONAL)

- Support Wake-on-Lan.
- O.N.E Bios Overclocking
- -Ability to fine tune the CPU output frequency in steps.
- -Support BIOS to adjust memory frequency, etc.
- -Support BIOS to adjust CPU/ Memory/ chip voltage, etc.

BIOS

■ Flash EEPROM Provides Award Plug & Play BIOS. Support Boot for quick selection of boot devices.

FRONT PANEL HEADER

 Support restart and Power button. Support Hard Disk and Power Indicator. Support PC Speaker.

SUPPORTED OPERATING SYSTEMS

■ Windows 7/ Windows 8.1(64bit)/ Windows 10(64bit)

BIOS FEATURES

ADVANCED MENU

■ Intelligently monitor and control processor temperature, fan speed, USB Configuration and Network.

BOOT MENU

■ Boot menu can be set to boot related functions and protection mechanisms.

O.N.E MENU

■ Supports full overclocking settings via the BIOS, including: CPU/ chip/ memory voltage.

