WHY WE BUILD A PC?

A NOT-THAT-LONG STORY ABOUT WHY ON EARTH WE BUILD OUR OWN PC.

You will never know how far you can go when you start to build a PC.
You will never know how cool it can be when you know how to build a great PC.
Grab your parts and start to build now! #YesWeBuild
PART 3 : HOW TO BUILD A PC

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WHY ON EARTH DO WE BUILD OUR OWN PC?

We choose whichever component we want that perfectly fits our needs.
We make the most use of our limited [or unlimited] budget
We can upgrade and maintain our PCs with ease.
In a nutshell...
Build-it-yourself is just simply cooler!
PART1:

INTRO TO PC COMPONENTS

WHAT DO I NEED TO BUILD A PC?

Building a PC is just so fun as building Lego. However, you should know the bricks before building a beast. While the builds can be in various styles and usages, there are indispensable computer parts that come together to make a PC work. Come learn the basics of each part.
CPUs are the brains of computers, mainly responsible for interpreting computer instructions and processing the data in computer software. There are two major CPU product series available in the market: Intel and AMD. The two manufacturers have their own advantages, but the important thing to note is that different motherboards have different corresponding CPU sockets. For example, the Intel X299 platform works only with Intel processors that use the LGA 2066 socket. In general, high-end CPUs have higher model numbers. Aside from price, the difference in performance is reflected in the number of cores, clock frequency, overclocking ability and cache size.

Here is a list of the mainstream sockets and processors currently available on the market:

**Intel**

Intel main CPU series are as follows:

- **Celeron series**: One of Intel’s cheaper models, providing entry-level performance, suitable for budget PCs mainly used for watching videos, word processing and surfing the web.
- **Pentium series**: Offers higher performance than the Celeron, but weaker integrated graphics performance and smaller cache than the Core i series.
- **Core i series**: The current mainstream CPU series on the market.
  - **Core i3**: Does not support Turbo Boost, suitable for light gamers.
  - **Core i5**: Supports Turbo Boost, suitable for mid- to high-end gaming.
  - **Core i7**: Support Turbo Boost, with pricing depending on the number of cores. Suitable for hardcore gamers who want high quality graphics, or users who frequently run image or video editing software.
- **Xeon series**: Normally used on workstations and servers, does not typically include integrated graphics.
Here is a list of the current mainstream Intel CPU series compatible with motherboards:

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<th>Processor</th>
<th>Socket</th>
<th>Compatible Motherboard (Chipset)</th>
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<td>Core i7-77XX/76XX</td>
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<td>Core i7/i5/i3/Pentium/Celeron</td>
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<tr>
<td>Core i7/i5/i3/Pentium/Celeron/XEON 1200 V3</td>
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<td>XEON E3-12XX V5/</td>
<td>LGA 1151</td>
<td>B85/H81 Chipset</td>
</tr>
</tbody>
</table>

**AMD**

- R7/R5/R3/7th A-Series/Athlon AM4→X370/B350/A320 Chipset Motherboard
CPUs produce a lot of heat. High temperatures can cause the system to shut down in order to protect important components, and may even cause permanent damage. Fans and heatsinks are therefore necessary in order to keep the CPU running cool. Except for some high-end CPUs, most boxed CPUs are bundled with a corresponding CPU cooler which can meet basic demands for heat dissipation.

For better system performance, it is suggested to buy a better CPU cooler.

The cooler can be classified in terms of heat dissipation medium into two types: liquid cooling and air cooling. Air coolers can be further classified into tower-style, downdraft and updraft coolers, depending on their appearance and airflow direction. Users should choose a cooler that fits their product and circumstances.

When choosing a CPU cooler, take into account the following considerations:

- Coolers need to provide corresponding brackets, as bracket positioning may vary slightly depending on the socket on the motherboard.
- Each CPU cooler supports a different thermal design power (TDP), indicating the upper range of heat output that it can handle. More powerful CPUs need better coolers to ensure stable operation.
- Choose a cooler that fits your case. Powerful coolers often have large heat sinks, so it is important to choose a cooler that can fit into your case without obstructing other components.
The motherboard is a platform that holds all the parts and components in a computer. It links the various components of a computer, including expansion cards, hard drives, memory and peripherals such as keyboard and mouse, as well as handling communication and transmission between these devices.

The following considerations should be taken into account when choosing a motherboard:

**Motherboard Dimensions:**
Just like clothes, motherboards come in different sizes. Common sizes include:

- ATX (30.5cm x 24.4cm)
- Micro-ATX (24.4 cm x 24.4 cm)
- Mini-ITX (17 cm x 17 cm)

Chipsets
Chipsets affect the motherboard’s price, as well as its functions and specifications.
For easy identification by users, chipsets from the same maker generally have model numbers that correlate with functionality. Here we will introduce chipsets from the two main makers, Intel and AMD.

**Intel**
- Users who have a high budget and want the very best can choose the Intel X299, which supports both processor and memory overclocking.
- If you want an unlocked K-series processor, that is, a processor with the -K suffix (e.g. the Intel® Core™ i7-7700K), you should choose the Z370 chipset, which supports overclocking in conjunction with -K CPUs.
- Users who do not need overclocking can choose from the H270, B250 and H110 chipsets, with B250 considered the best in terms of price-performance.
- If you choose the E3-1230 V5 processor, your only options are the C236 or C232 chipsets.

**AMD**
- Overclockers will need the X370 or B350 chipsets. The biggest difference between the two is that the X370 supports NVIDIA’s SLI multi-GPU technology.
- If you do not need overclocking, we recommend the A320 chipset, or the B350 chipsets which supports more storage devices.
In simple terms, memory is used to store data temporarily, increasing the speed at which the CPU can access data from the hard drive. Both memory capacity and frequency affect computer performance. The higher the memory frequency, the faster it is. Having more memory means more space for temporary storage, and better performance as a result.

DDR4 is the current mainstream, starting at DDR4-2133 for entry-level computers. Higher frequencies such as DDR4-2400 and DDR-3000 are typically targeted at hardcore gamers and overclockers.
The graphics card takes data from the computer and outputs it as text, images and colors on a display monitor.

At present, the two main graphics manufacturers are NVIDIA and AMD.

NVIDIA is the choice of many gamers because it has better compatibility on the current market.

Here are the mainstream products currently on the market:
- NVIDIA: 1030/1050/1060/1070/1080/1080 Ti
- AMD: 460/470/480/550/560/570/580

The higher the model number, the better the performance. In addition to the above, be sure to note the amount of VRAM available on the graphics card.
The hard drive is the computer’s storage device.

Generally, a traditional hard disk drive (HDD) is used in conjunction with a solid state drive (SSD) to get the best of both worlds in capacity and performance, with the latter serving as the operating system’s boot drive.

**SATA interface**
- Traditional hard disk drive (HDD):
  - Inexpensive and offers higher storage capacity (typically 1TB or 2TB), but relatively slow and large in size
- Solid state drive (SSD):
  - Lower capacity (typically 256GB or 240GB), medium size, price and performance

**M.2 interface**
- SATA-based SSD:
  - Lower capacity (typically 256GB or 240GB), medium size, price and performance
- PCI-E SSD:
  - Lower capacity (typically 256GB), smaller size, expensive but fast

**U.2 Interface**
- PCI-E SSD:
  - Lower capacity (typically 400GB), smaller size, expensive but fast
The power supply converts AC power into DC power for computer components.

The following considerations should be taken into account when choosing a power supply:

**Wattage**
- 550W or higher is recommended when using a discrete graphics card
- 750W or higher is recommended when running two graphics cards, such as in SLI.

**Energy Efficiency**
The 80 Plus certification program for power supply units offers 80 Plus, 80 Plus Bronze, 80 Plus Silver, 80 Plus Gold, 80 Plus Platinum and 80 Plus Titanium certification levels. The most efficient (and most expensive) Titanium tier offers more than 90% energy efficiency.

**Power Supply Design**
1. General Design
2. Modular Design. Modular cables are typically found in high-end PSUs and makes it easier to organize cables.
In addition to performance, component layout is also an important consideration when building a computer. Be sure to take into account the following when buying a computer case:

**Material**
1. Most computer cases use SECC or SGCC galvanized steel. Steel cases are cheap and sturdy, but heavy.
2. Aluminum-magnesium alloy cases are more expensive.
3. Another option is a combination of materials (SECC or SGCC for the main body, aluminum-magnesium alloy for side panels). In recent years, some makers have even turned to materials such as glass and wood.

**Dimensions**
1. ATX motherboards will only fit in ATX cases.
2. Micro-ATX or Mini-ITX motherboards can fit in ATX cases, but Micro-ATX or Mini-ITX cases are recommended, respectively.

**Air flow design, tool-free installation and expandability**
The amount of expansion room available is an important consideration if you plan to upgrade your system in the future, such as adding more hard drives or graphics cards. Upgrading your computer also means higher cooling requirements, another factor to consider.
**PERIPHERALS**

**Keyboard**
The keyboard is mainly used for text input. Keyboards use the USB or PS/2 interface.
USB keyboards are the norm, with only a few high-end or low-end products employing PS/2.

The mechanism and actuation method on a keyboard determines its tactile response when typing.
The two main switch types are membrane and mechanical.

- Mechanical keyboards are actuated by an independent physical switch. Different mechanical switches have different tactile responses; the main types are brown, blue, black and white.
- Membrane keyboards are cheaper and make up a majority of the market. One problem that membrane keyboards may encounter is registering simultaneous key presses, so competitive gamers may want to choose keyboards that support N-Key Rollover (NKRO).

**Mouse**
Mice are typically classified according to their method of connection - wired or wireless. They can also be classified according to their sensor type, depending on whether they employ optical or laser sensors.

Wired mice typically connect via a USB port, while Bluetooth and 2.4GHz WIFI are the norm for wireless mice. For gaming, we recommend using a wired mouse to avoid wireless signal and battery life issues.

**Monitors**
Monitors can be classified as flat or curved according to their shape. When buying a monitor, pay attention to the panel type, brightness, contrast and refresh rate. At present, IPS panels are the most popular type. In addition to your personal needs, you should also take into account your graphics card when choosing a display. High-end gaming monitors may support NVIDIA G-Sync or AMD Freesync, both of which help reduce screen tearing. Monitors typically receive display output through D-Sub/DVI/HDMI interfaces.
PART 2: PLAN YOUR PC BUILD

HOW TO CHOOSE PARTS FOR MY BEST PC BUILD?

The best part of building your own PC is to customize your rig that suits your need. Do you build a PC for intense gaming or for heavy multimedia production? Here are some tips you need to take into consideration when choosing your components.
A POWERFUL STREAMING PC IS ALL YOU NEED.

You may be a fresh or pro streamer who craves a dedicated streaming PC that can deliver and capture high-quality stream. You are seeking the kind of PC that can get your game on while broadcasting your game adventure smoothly at the same time. Building a streaming PC is the best solution for you.
HOW TO BUILD A STREAMING PC

Live streaming has become an indispensable form of new media in the Internet Age, enabling you to share your gaming skills and experiences with friends remotely. Building a streaming PC may sound professional, but don’t let it intimidate you. Here are some useful advice you should know before you start.

WHAT SHOULD I KNOW TO BUILD A STREAMING PC?

Gameplay and Streaming Quality
Every game has its minimum and recommended hardware requirements. Based on your budget and your desired stream quality, you can choose the display quality of 720P or 1080P, as well as 30 or 60 FPS. In most cases, this will be influenced by your CPU/Memory/GPU. This is the most effective way to recommend computer hardware.

Is your Internet fast enough?
A 20Mb/s connection is more than enough for most streaming purposes. With a stable signal, you can even get a smooth streaming experience just by tethering a connection through your phone. In most cases, network instability and poor streaming quality is the result of improper hardware or software settings, resulting in excessive network usage by other programs. We suggest to install a network manager or restricting bandwidth used by other applications to give preference to the game and live stream, thus delivering better streaming quality.

Reference Link http://beta.speedtest.net/
Graphics cards vs. capture cards

First, let us understand why we need a capture card. If you just want to share your gameplay footage, without looking for top streaming quality and stability, a mid- to high-end PC should work just fine.

What a capture card does is that it can help reduce graphic glitches, as well as reduce CPU usage during recording and streaming. It also allows the user to embed webcam footage and voice commentary in the live stream, while maintaining 1080P resolution during gaming. Therefore, capture cards are suitable for those who want to be professional streamers. If you just share your gameplay occasionally, a mid- to high-end graphics card will suffice.

Choose a Quad-core or Higher CPU

A dual-core CPU is enough to handle most games, since gaming doesn’t require multi-threaded processing. But as we Some good choices are Intel’s i5/i7 series or AMD’s Ryzen 5 series/ Ryzen 7 series

PRO TIPS

Choose a 8GB or more memory

Twitch recommends at least 8GB DDR3 for live streaming.
**GAMING PC**

**TRUE GAMER DESERVES A MONSTROUS GAMING PC.**

It is all about ultimate gaming experience for you. There is nothing you would ask for more than gaming at the highest resolution possible. You gaming spirit is lit with realistic, theater-like sound. What a true gamer needs is a mighty PC that runs game smoothly and deliver immersive game scenarios.
HOW TO BUILD A GAMING PC

The big advantage that a gaming PC offers is a sense of immersion during intense gaming. They typically have more powerful display output and CPU, as well as better audio. Gaming PCs come in different tiers too, with configuration and budget determined by the game and the desired graphics quality. Here, we will teach you how to build your own gaming computer, through some tips, methods and websites.

WHAT SHOULD I KNOW TO BUILD A GAMING PC?

What Type of Game Do You Play?
Each game has its own requirements. For example, MMORPGs place great importance on graphics and sound quality, while FPS games may be less demanding on those, but emphasize good connection quality. Before building a computer, visit the right websites to learn about your game’s system requirements, in order to avoid spending too little or too much.

Reference Link: http://gamesystemrequirements.com/

Choose the right graphics card
Games are increasingly demanding on performance, and graphics cards are more powerful than ever. Finding the right graphics card is the key to building a good gaming PC. There are two graphics card brands, Nvidia and AMD. We recommend that you pick your graphics card based on your game’s recommended hardware requirements. The high FPS that players look for is mainly determined by the specifications of the graphics card. Therefore, you should choose your graphics card based on your game and the level of graphics quality that you want to see. Graphics cards of come in reference (official) and custom versions by brands such as MSI. The latter is often equipped with better cooling systems.

Increase loading speed of games with a SSD
Loading times are an issue for many players. It is affected by network speed, as well as the time it takes to read the game from the hard disk. Therefore, another way to improve gaming performance is to use an SSD (Solid State Drive) or an M.2 / U.2 SSD device which supports read speeds at up to 32Gb/s.
Buy a proper headset or speaker, or use gaming-grade professional audio software

Almost all gaming motherboards are built with middle- or high-level onboard audio chip. A quality headset or speaker can work well with the motherboard to achieve the expected sound effect. Good sound effect software can also improve the gaming experience. For example, MSI motherboards come with Nahimic 2 software. With high-quality immersive sound, this helps you track the position of other players through sound, a very useful tool to have.

Improve game performance via overclocking

Overclocking technology has become increasingly mature, and some motherboard manufacturers even provide one-click overclocking, turning what used to be a complicated process into the simple matter of a single mouse click. MSI’s Game Boost allows you to quickly setup overclocking in your BIOS and increase CPU/graphics performance anywhere from 15%-25% depending on your CPU.

PRO TIPS

Choose the right motherboard

A good gaming motherboard not only supports further upgrades, but also provides low-latency voice communication for an enhanced gaming experience. The MSI official Best Of The Best website can help you find the best motherboard for gaming that perfectly suits your gaming requirement.

Reference Link:
https://www.msi.com/Landing/2017-best-motherboard-for-gaming-pc-build
HOW TO CUSTOMIZE YOUR PC

In addition to high performance, lots of PC users are also paying more attention to customizing their own PCs, from its appearance to its accessories. Want your very own personalized rig? A few simple steps are all you need to make your gaming computer truly unique.

WHAT SHOULD I KNOW TO BUILD A GAMING PC?

Start with the color scheme
In recent years, various manufacturers have begun releasing products with special color schemes, such as MSI's all-white Arctic motherboard series, the all-black SLI PLUS series, and the silver Titanium series. As a starting point, getting matching components from the same series helps maintain consistent color throughout your rig.

Add RGB Lighting
Nowadays, many computers are equipped with RGB lighting devices. You can add RGB lighting by installing a LED strip, or choosing components that come equipped with lighting. Proper mixing and matching is the key to getting good lighting effects. MSI's Mystic Light Sync allows you to connect and control RGB devices inside and outside the case, delivering a brand new visual experience through a variety of color and mode settings.

While RGB lights typically run on 12V power, digital LEDs that run on 5V power are also available. Digital LEDs offer greater potential for customization by allowing the user to adjust lighting color on an individual basis. The user is free to configure lighting effects according to their own taste.

Reference Link: https://www.msi.com/Landing/mystic-light-motherboard
**How to install RGB device**

1. Check the definition of pin headers on the purchased RGB accessory and the motherboard (for example, 12V/5V)
2. Plug the 4-pin (3-pin) RGB connector to the RGB header on the motherboard
3. Plug the power connectors additionally when connecting an RGB accessory if necessary
   Ø For fans, connect to the fan connectors on the motherboard
   Ø For non-fan products, connect to the 4-pin connectors of the power supply

**Create your own unique motherboard**

For some extra flair, you can add 3D-printed accessories to your motherboard. The latest "3D X-Mounting" feature of the MSI X299 series allows you to download exclusive 3D printing part files from a designated website. Download the 3D printing parts and create various accessories such as M.2 fan stands, graphics card holders, or Lego brackets. These accessories help provide practical functionality, while adding a touch of style.


**Custom water cooling system**

A custom water cooling solutions places higher demands on skill, but is a good way to set your rig apart from others. Custom water cooling solutions that employ pipe bending can avoid the tangle of pipes often found in AIO systems.
USEFUL TOOL: PC PART PICKER

The most important part of building a PC, is not “building” itself, but planning your component list by your specific preference. After all, what really matters to your PC’s performance is the hardware that comes together. To help you tailor-make your own build list, we recommend you one helpful resource: https://pcpartpicker.com/

PCPartPicker offers stunningly detailed product information of all components you need, including users review and where-to-buy link. By switching the website to different countries, the where-to-buy links will correspondingly link to local e-tailer site. Not only does it provide a wide selection of available products, but also give you a reference of price and place to purchase, which helps you save up lots of time and money. All you need to do is to enter https://pcpartpicker.com/list/ and you can choose your parts.
When you finish creating your ideal build list, there are a few functions you can leverage:

Save. Simply save the planned build list first if you haven’t yet decided to purchase your rig at the moment. Take your time to compare and consider.

Share. You can share the build list with your friends or to the forum for more opinion on your PC build.

Buy. An easy button for you to buy the product on the e-tailer sites with ease.

**CHOOSE THE RIGHT PSU FOR YOU: MSI POWER SUPPLY CALCULATOR**

One big question many builders encounter when buying components is that “How much wattage do I need in my PSU to make my PC work?” Don’t underestimate this issue, for buying a PSU with an unfitted wattage can affect the upgradability of your PC in the future. If you buy PSU with insufficient power supply, it might not have enough output cables for other component such as GPU. Also, your computer may encounter hiccups and system crashes from time to time. For some cases, it may cause. MSI Power Supply Calculator can help you with this problem. Check out here:

https://www.msi.com/power-supply-calculator

**FILL IN YOUR CONFIGURATION**

By filling in your PC configuration, MSI Power Supply Calculator (https://www.msi.com/power-supply-calculator) will automatically calculate the wattage your PC needs to run the system stably. User can just buy the PSU accordingly.
HOW TO BUILD A PC
STEP-BY-STEP BUILD GUIDE IN 11 STEPS

Time to get your hands dirty! With hands-on PC building instruction, even first-time builder can build up a great custom PC. Grab the screwdriver, keep your passion, and you are good to go!
STEP 0. PREPARATION

Before start, some simple things to be prepared:

1. A magnetic screwdriver.
2. Some zip ties /velcro strips and a pair of scissors.
3. A clean non conductive surface to build your PC onto.
4. Take a deep breath, read the manuals first and you are good to go!

Caution:

Pins on the back of the motherboard are very fragile. Do not place your motherboard directly onto the surface to avoid pins from bending.
**STEP 1. CPU INSTALLATION**

1. Unlatch the lid of the CPU socket
2. Line up the notch printed on the CPU with the guiding notches marked on the socket; carefully insert it inside the socket.
3. Make sure the CPU is placed properly then resecure the lid and lock it onto the processor.

**Caution:**
Be careful with the CPU socket pins (or CPU pins), as it is made of gold, which is soft material. They are exceedingly fragile, any slight collision can bend the pins, which might cause functional errors.
STEP 2. INSTALL THE MEMORY

1. Pressing down on the lock/ejector tabs that are located at the ends of the memory socket.
2. Check the memory module installation order outlined in the motherboard manual, and make sure which the suggested matching memory slots to insert first.
3. Push the modules down until you hear a “click” as the retention clips are pushed upwards and lock the module.

Tips:
The suggested sequence of which memory slots to be installed first may differ due to different motherboards. Take MSI motherboards as example, you are suggested to insert the memory kit into Dimm1 slot first.
STEP 3. M.2 DRIVES INSTALLATION (OPTIONAL)

1. Move and fasten riser screws on the M.2 standoffs.
2. Take your drive and gently insert it into the connector at a 45 degree angle.
3. Push it down towards the standoff and secure it with the little screw.

Tips:
Some high-end motherboards come with special cooling solution for M.2, such as M.2 shield and M.2 FORZR. You can refer to motherboard manual for additional installation steps.

WATCH THE VIDEO
STEP 4. CPU COOLER INSTALLATION

1. Mount the back-plate onto the back of the motherboard. (If you have one)
2. Apply a drop of thermal paste onto the surface of the processor.
3. Connect CPU Fan Cable to CPU Fan Header on the motherboard.
4. Lower the cooler vertically and place it onto the CPU.
   Secure it evenly tightening opposite screws progressively.

Caution:
Make sure you apply thermal paste with the right amount. Too little or too much will cause bad contact or get paste into the socket relatively.
Make sure the screws are tightened properly, and the pressure applied at the corners is even to avoid CPU damage and cooling performance degradation.

WATCH THE VIDEO
STEP 5. MOTHERBOARD INSTALLATION

1. Install I/O shield onto the back of the case.
2. Take your motherboard and gently lower it at a 45 degree angle into the case.
3. Match the mounting holes on the motherboard with the stand-offs in the case.
4. Secure the board with each of the supplied screws.

Tips:
Don’t leave out screws - a solid mount will be very helpful to secure the motherboard in place to avoid unsteady movement.
STEP 6. GRAPHICS CARD INSTALLATION

1. Remove rear PCI-e bracket from the case.
2. Unlock the PCI-e slot by pushing back the small plastic lock located at the rear of the slot.
3. Hold the card with two hands, lower the graphics card into the case and install into the PCI-e slot of the motherboard.
4. Secure the graphics card with the required screws to the back of the chassis.

Caution:
Some high-end cards are longer or use up even more PCI space. Make sure to check that beforehand to choose the appropriate case that could fit the graphics card.
STEP 7. STORAGE INSTALLATION

1. Connect one end of the SATA cable to the SATA ports on the motherboard, and the other end to the storage devices (2.5” inches / 3.5” inches) itself.

Caution:
Make sure you mount the hard drive tight to avoid damage.

WATCH THE VIDEO

HOW TO BUILD A PC

STEP 7: STORAGE INSTALLATION
STEP 8. POWER SUPPLY INSTALLATION

1. Mount the Power Supply (PSU) into the chassis and secure it with all the screws.
2. Connect 24-pin power connector into the socket on the motherboard.
3. Connect 8-pin CPU power connector to motherboard.
4. Connect 6+2 Pin PCI-E Cable to graphics card (it may vary by graphics card products).
5. Clip in your SATA power connector to hard drive.
6. Connect other Molex connectors (with 4 horizontal pins) to extra devices (e.g. DVD/CD Optical Drives).

Tips:
Choosing the appropriate wattage for a Power Supply is essential. You can use online PC build simulators such as PC Part Picker or MSI Power Supply Calculator tool to get an estimation of the power required by your build. Make sure to purchase a Power Supply with a little headroom to account for future upgrades.
STEP 9: FRONT PANEL CONNECTORS

1. Connect Power switch / Reset switch / Power LED / HDD (Hard Drive) LED Cable to motherboard JFP1 Pin header.
2. Connect front USB cables to USB pin headers on the motherboard.
3. USB 3.0 / USB 2.0 Cable to USB 3.0 / USB 2.0 Pin Header.
4. Front USB Type-C Cable to Front USB Type-C Pin Header.
5. Connect the Audio (Speaker) Cable to the motherboard JAUD1 Pin header.

Tips:
Check the maximum amount of USB ports on the motherboard before purchasing a PC case. Make sure the case you want to purchase also support enough USB ports as the motherboard does.

STEP 10. CABLE MANAGEMENT

1. Use zip ties or velcro strips to secure the cables in tight bundles to the back of the case.

STEP 11. OPERATING SYSTEM AND DRIVE INSTALLATION

1. Insert the OS device (CD / USB)
2. Follow the OS installation steps
3. Download the latest device driver from the website and Install.

Tips:
If your system can’t be booted from the installation devices, enter the BIOS and prioritize the boot sequence.
ABOUT MSI
AS A WORLD LEADING GAMING BRAND, MSI IS THE MOST TRUSTED NAME IN GAMING AND ESPORTS. WE STAND BY OUR PRINCIPLES OF BREAKTHROUGHS IN DESIGN, THE PURSUIT OF EXCELLENCE, AND TECHNOLOGICAL INNOVATION. THE DETERMINATION TO SURPASS PAST ACHIEVEMENTS HAS MADE MSI A ‘TRUE GAMING’ BRAND WITH GAMING SPIRIT THROUGHOUT THE INDUSTRY.

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