

For your convenience, please feel free to fill in the boxes below with the relevant information. That way should you need any technical assistance on **0871 222 1212** in the future, any information that our technical support team should require will be to hand.

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| Order Number: |  |
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## Novatech Barebone Bundle Build Guide . . .

- **Always remember to backup your data before carrying out any kind of upgrade or maintenance on your PC**
- **Please check that the heat sink is still attached on to the CPU socket securely. It has been known on occasion for one to come loose during transit. To avoid damage to CPU please make sure it has not come loose before powering up**

### Tools Needed . . .

We recommend at least the following in order to complete the task of fitting your new bundle.

- **Posidrive and Philips head screw drivers** - Most useful, as most fixings in your PC should use these.
- **Cable Ties** - Helps airflow inside the machine by keeping all your cables neat and tidy. Remember to use plastic ties only!
- **Small Wire Cutters** - Handy for cutting off excess of cable ties.
- **Long Nose Pliers** - For when fingers are too big, these will help deal with the smaller parts of PC's such as configuration jumpers.
- **Anti Static Device** - This is a must for anyone building PC's. Static can cause harmful damage to PC components. As you are handling these you must take precautions. The most convenient of these is the Anti Static Strap.  
And lastly and most importantly . . .
- **Plenty of Time** - Things never go according to plan and a rushed job has a higher chance of going wrong.

### Preparation

- (1) Your new Barebones will already have the motherboard fitted in to the case. The required connection from the Power Supply Unit (PSU) to the motherboard will also have already been connected along with the wiring from the front switches and LEDs.
- (2) In order to complete your barebones so that it is ready for use you will need to install an optical drive, a hard drive and depending on the barebones purchased a graphics card as well. These are the minimum requirements to get the system up and running. You may also have additional hardware you wish to fit.

In order to correctly use your barebones you will need to make sure that the hardware you are going to use in it is compatible with the barebones hardware.

This will require some identification on your part either by reading the motherboard specification or a visual inspection.

### Expansion Slots

- (3) Expansion cards such as Modems, Network, Graphics cards are fitted to the motherboard via a slot. Now depending on the device, this will determine what slot is required.

Currently the following slots are used today on motherboards. Figure 1 shows a PCI slot.

Figure 1



PCI Slot

These slots are used for items such as Modems, LAN cards, Sound cards and many more.

The slot in Figure 2 is used for AGP based graphics cards only. You will notice in the picture above that slot is divided in to two sections. This is to make sure the card fits in the correct way and also to make sure that your AGP card is of the correct type.

Older AGP graphics cards do not work with newer motherboards, as they do not meet current standards. The partitioning prevents these old cards from being fitted and causing damage.

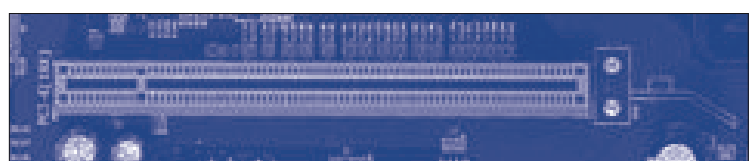
Figure 2



AGP Slot

PCI Express is a brand new design of interconnects to provide more bandwidth for devices. The 16x Slot shown on figure 3 is designed for PCI Express Graphics cards only. These are only found on motherboards designed for PCI Express.

Figure 3

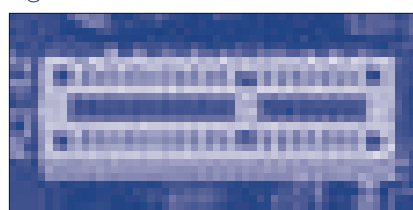


PCI Express 16x Slot

PCI Express is a brand new design of interconnects to provide more bandwidth for devices. The 1x Slot shown on figure 4 is designed for PCI Express based Modems, Network Cards etc. Hardware for these connectors is not commonplace yet.

There are also a 2x, 4x and 8x PCI Express slot, however these are not as common place as the other two and are hardly implemented on motherboards yet.

Figure 4



PCI Express 1x Slot

## Fitting Expansion Cards

- (4) Having identified the card slots that you have and sorted out any expansion cards you wish to use, you will now need to fit these cards to the motherboard.
- (5) You will need to line the card up with the slot it is going in to and remove the blanking plate from the back of the case that covers the card slot your expansion card lines up with. These are normally held in with one screw.

With the blanking plate removed insert the card in to the slot. It is best to insert the card, remove it and place it in again. This will help clear any dirt that may have got in to the slots. Secure the card using the screw that your removed from the blanking plate. If your system came without the blanking plates fitted. Locate the bag of accessories and use a case screw from there to secure the card.

- (6) Check that your cards do not require additional power from the PSU. Some cards especially high-end graphics cards require additional power, which is provided by connecting one of the power connectors from the PSU to the connector on the card.

## Fitting Optical/Floppy Drives

- (7) The next step is to fit the drives you will require. Optical drives and floppy drives are fitted in to the 5 1/4 and 3 1/2 inch bays respectively. In order to fit these will require you to remove the plastic blanking panel from the front of the case and also the metal emission shield behind that.
- (8) With this done there should now be a hole for you to slide the drives in to. Depending on your case the drives will either slide in and be screwed in to place from inside the case. You will see inside the case that the frame the drive slides in to have holes in. Once the drive is lined up with the front of the case, these holes should line up with screw holes in the side of the drive in order to allow you to secure the drive in place with 4 screws. The other way sometimes seen is by rails that are screwed to the drive before sliding it in. The rails lock the drive in place.

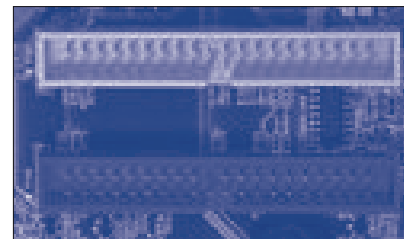
## Fitting Hard Disk

- (9) The Hard drive goes in from inside the case normally sliding in to an internal 3 1/2 inch bay, as it requires no front of case access. Once in place secure with 4 screws.

## Cabling

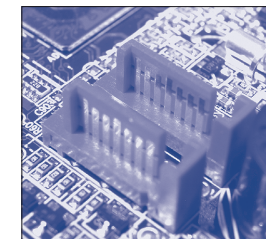
- (10) Drives use two types of data connection. They use IDE or SATA which are shown on Figure 5 & 6. Which connection is right for you will depend on the additional hardware that you have fitted.

Figure 5



IDE Interface

Figure 6



SATA Interface

SATA is mostly commonly used on hard drives. If you have one of these types of hard drive, you will need to connect the SATA data lead from your HDD to the SATA port on your motherboard.

Optical drives and IDE HDD will require you to make connections from your drives to the IDE ports on the motherboard using ribbon cables. Floppy drives will require you to make a connection from your drive to the floppy port on the motherboard using a floppy ribbon cable.

- (11) Each IDE port can support two drives by connecting them to the connectors on the ribbon cable. In this setup make sure that if you have two devices on one cable, that one is set to master and the other slave. Jumpers on the back of the drive do this. Refer to the documentation with your drive if in doubt to this setting.
- (12) Once you have made these connections, connect a power connector to each of the drives you have fitted.
- (13) You should now be able to power on your system and begin installing your chosen operating system.

## FAQ . . .

This section will provide answers to some of the more common questions we get asked with regard to motherboard bundles.

### Q. Floppy drive light remains constantly on.

A. This is caused by the floppy cable being fitted to the drive incorrectly. Please check that you have lined up and fitted the cable the correct way round.

### Q. What does P.O.S.T. mean?

A. P.O.S.T. stands for 'Power on self test' This is performed by your system every time the system is booted to check that all hardware is in place and detected correctly.

### Q. I have upgraded my old PC with a barebones and my operating system will not boot or I get a Blue Screen error.

A. Please make sure that you have performed a complete format and re-install of your operating system. When changing the motherboard you cannot use a previous install from another system.

### Q. I have installed Windows but some of my hardware is not working or I have unknown devices listed in device manager.

A. Windows does not contain drivers for all hardware and the drivers it does have are only basic generic drivers. Please install your hardware drivers from the CD's that were provided with the hardware. This will allow the device to work and provide its full functionality.

### Q. During the install of Windows my system is halted with a Virus Warning.

A. This is because your system BIOS believes a virus may be on your system. This is a false alarm caused by the fact that Windows is writing new MBR and FAT information to your HDD. Please make sure Virus warning is disabled in your BIOS should this error arise.

### Q. I have built my system but it will not power on / P.O.S.T.

A. Please check that all your hardware is fitted correctly. Try reseating the hardware such as Cards, RAM and CPU. Make sure that you have not shorted the motherboard out by fitting metal standoff's in wrong position. Make sure you have fitted all cables needed and that they are the correct orientation. Consult documentation if in doubt.

### Q. I am using a SATA hard drive and windows reports that it is not detected during install.

A. This is normally caused by the fact windows install does not have an inbuilt driver for your SATA controller. If needed you will normally have a floppy disk with this driver on. At the beginning of Windows install it asks you to press F6 to install additional drivers. Press F6 at that time. Windows install will continue for a few moments and then ask you for the additional drives. Follow on screen instructions at that time. You should then be able to install windows.

### Q. Should I update my BIOS / If it fails will it invalidate my warranty.

A. You should only update your BIOS if the new BIOS will fix a problem. If your system is working fine there is no need to upgrade. An incorrect BIOS flash will damage the board and will invalidate your warranty. Please only perform this if advised to do so by our Technical Support. All Bundles are shipped with the most up to date BIOS available.

### Q. I already own a copy of Windows XP that I have used and activated on a previous system. Can I use it with my new system?

A. Due to licensing limitations with regard to Window XP this may not be possible. Certain upgrades of a previously used version of Windows XP will breach the user licence agreement and in this circumstance a new copy of XP would need to be purchased.

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