

## PUTERZ MOTHERBOARD BUNDLE INSTALL GUIDE.....

### TOOLS NEEDED

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

- **Posidrive and Philips head screwdrivers** - 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 . . .**

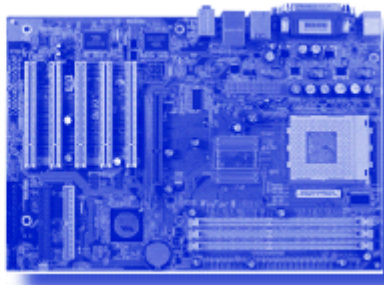
- **Plenty of Time** - Things never go according to plan and a rushed job has a higher chance of going wrong.

### HAVE I GOT THE RIGHT CASE?

*MATX Mainboard*



*ATX Mainboard*



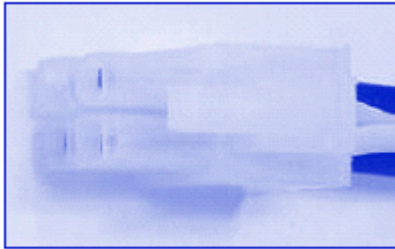
(1) Depending on which particular bundle you have purchased, you will need a PC case that is either Micro ATX (MATX) or ATX in size. A MATX board can fit in to an ATX case. An ATX board will not fit in a MATX case.

### Have I got the right PSU?

(2) Some cases come with a power supply (PSU) already fitted. If yours does not you will need to buy one. If you're using an old case or buying a new one, your PSU must meet the following requirements.

(3) Your PSU must meet ATX 12v V1.1 and ATX V2.01 Specification or higher and we recommend 450 watts minimum or higher. New cases bought with a PSU will normally already meet this requirement. However a quick and easy way to check is to make sure you have the following connector on your PSU (See Figure A). Some newer motherboards may require additional types of connectors or adaptors. If in doubt, please consult your manual for further information.

Figure A



4 Pin 12 volt Power Line

## PREPARING THE CASE

- (4) Before fitting your motherboard bundle into your case you must prepare the case.
- (5) Firstly you must fit the I/O shield in to the hole in the back of your case (See Figure B).



Figure B

- (6) Some of the holes in the I/O shield may be blocked. They have pieces that can be snapped out. Line up the I/O shield with the various connectors on the top edge of your motherboard. Only break out blocked holes in the I/O shield if your motherboard has a connector that lines up with one of those holes. Once this is done you can fit the I/O shield in to your case. This is normally fitted from the inside of the case and is pressed into place. Also make sure it is the correct orientation.

## FITTING THE MOTHERBOARD

- (7) Next you must fit the metal standoffs that will space the back of the motherboard away from the back of your case.
- (8) There are many different types of standoffs but the most common is shown below. You may need to consult your case information if you are unsure.
- (9) Figure 1 shows the most common standoff. These must be positioned in the case by screwing them in to the preset holes drilled in to the back of your case as shown in Figure 2.



Figure 1

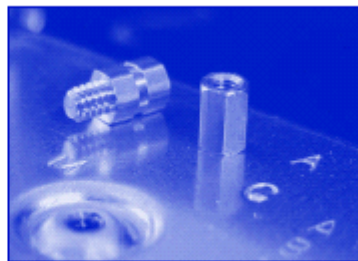


Figure 2

- (10) In order to work out correctly where these should go, locate on your motherboard all the screw holes as shown in Figure 3. Use the motherboard as a guide to the correct place for the standoffs to go. If need be put the motherboard into your case and once you can see where each locating hole is remove it again and fit a standoff at each location. Badly positioned standoffs can short and damage your bundle so it is best to double check.

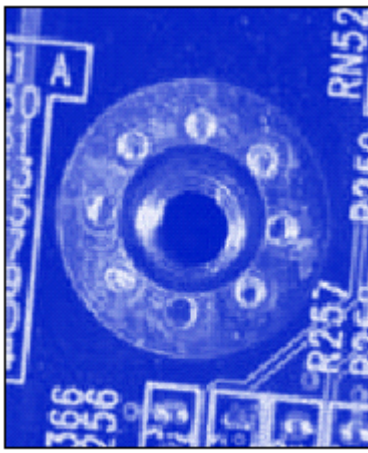


Figure 3

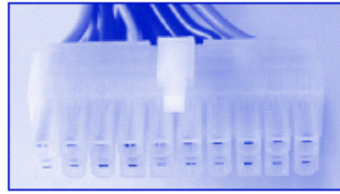


Figure 4

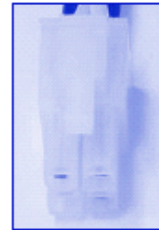


Figure 5



Figure 6

(11) Once this is complete, place your bundle into your case carefully so that the motherboard connectors line up with the holes in the I/O shield. Lift the board slightly so it does not scratch the underside on the standoffs and slide the board so that the connectors pass through the appropriate holes in the I/O shield. If done correctly the screw holes in your motherboard should now line up with the standoffs underneath. Using screws that should have come with your case, screw the motherboard into place.

## CONNECTING THE PSU

- (12) You can now connect the PSU cables for the motherboard.
- (13) You will require one or more of the following (See Figure 4, 5 & 6).
- (14) Some newer motherboards require a 24pin main power connector. This will require a 20pin to 24pin convertor for correct connection. (Please refer to Figure 6)

## FINISHING UP

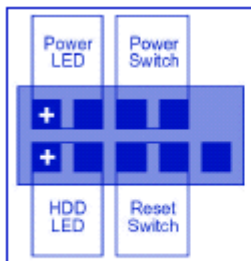


Figure 7

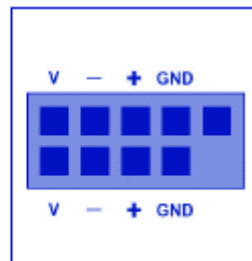


Figure 8

(15) The last thing to do is to connect the power switch, reset switch, HDD LED and Power LED. These are connected to a 9pin header on the motherboard. An example of how one is wired is shown in Figure 7. This can vary from what is shown below so if in doubt please consult your manual for correct wiring and location on your board.

(16) Some cases support front USB. Figure 8 shows the common wiring for motherboard USB pin header. **Please check carefully your specific layout for the USB header, incorrect wiring may damage your motherboard.**

(17) You have now completed Motherboard bundle install. You may add any further hardware you require before installing your system.

Figure 3

Figure 6 Figure 5 Figure 4

**Figure 4** shows main power connector, which all boards need.

**Figure 5** shows Aux power connector. Not always required.

**Figure 6** shows 20 to 24 pin power connector converter