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## JARGON BUSTER

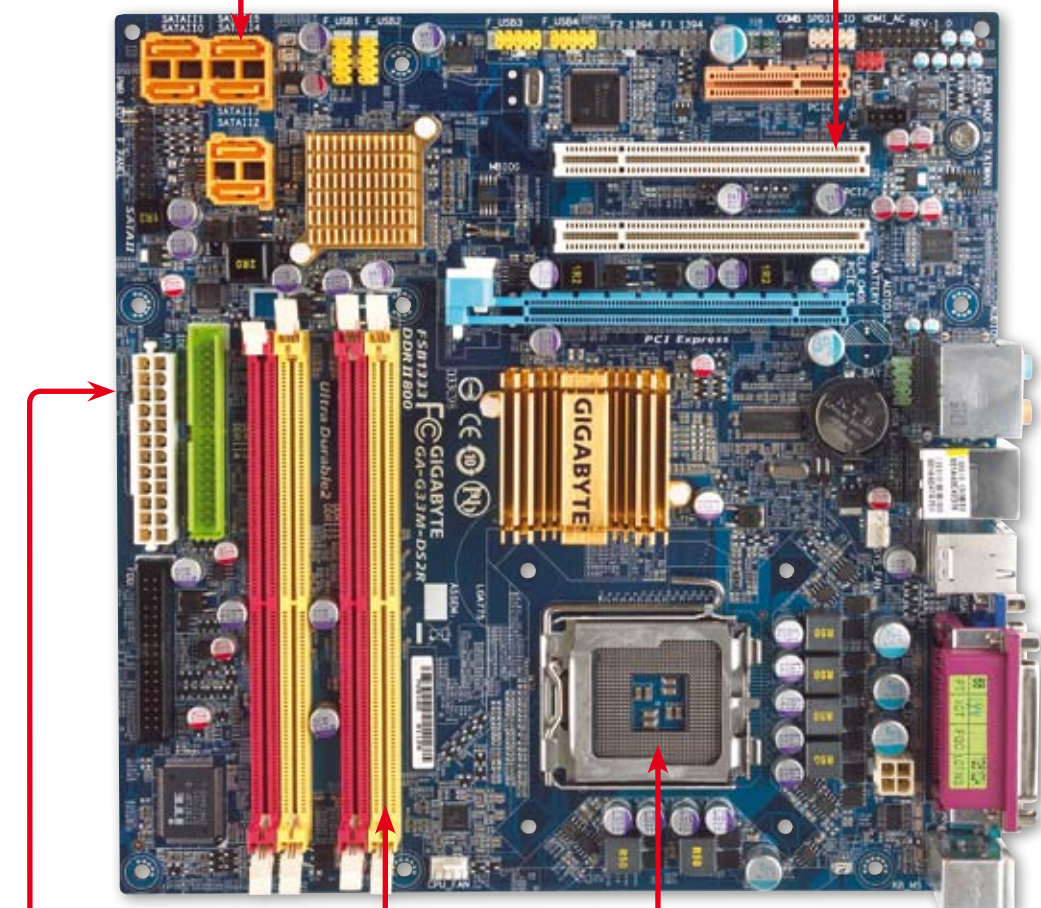
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All the buzzwords and technology explained.

# Installing the motherboard

**SATA PORTS** These are for hard disks, newer DVD writers and Blu-ray drives.

**EXPANSION SLOTS** These are used for internal peripherals such as TV tuners and graphics cards.

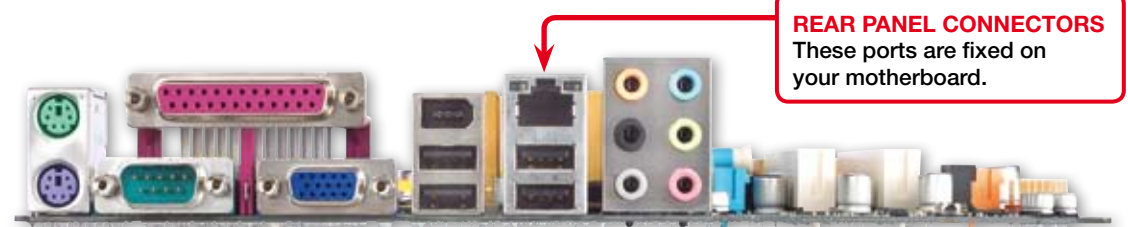


**IDE PORT** This is for attaching a DVD writer or old hard disk.

**MEMORY SLOTS** These are for your PC's memory.

**PROCESSOR SOCKET** For your processor.

**REAR PANEL CONNECTORS** These ports are fixed on your motherboard.



**TIP** Blanking plates can be difficult to fit. Push them in until they click, but don't worry if they're not entirely level around the sides.

## HOW TO... Install the motherboard

**1 UNPACK THE BOARD**  
Open your motherboard's box. You'll see lots of cables, a driver CD, a metal blanking plate with holes cut out and a manual. Take these components out and put them to one side, as you'll need them later on.

The motherboard will be inside an anti-static bag and resting on top of anti-static foam. Slide the motherboard out of the bag, but leave it attached to the foam for now. Place the motherboard and foam on top of the anti-static bag, and take out the metal blanking plate.

**2 MEASURE BLANKING PLATE**  
The blanking plate fits into the case, and gives you access only to the ports that your motherboard has. However, some motherboard manufacturers use generic blanking plates that fit their entire range of boards. With these, you may need to remove some metal covers to give access to your motherboard's ports.

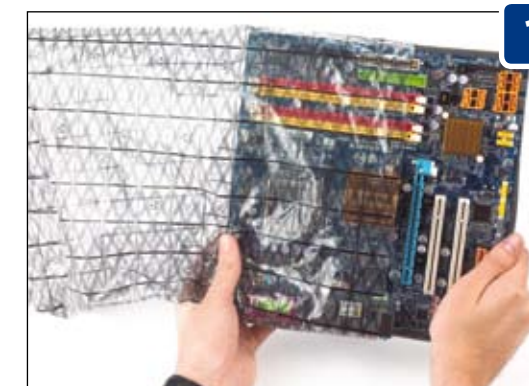
The easiest way to see is to hold the blanking plate up to the motherboard until the cutouts

match the ports on your board. The blanking plate should be pushed against the motherboard with the ridge pointing out, so any text is readable. It will only fit one way, so manoeuvre it until it's the right way. Make a note of any ports that are covered.

**3 REMOVE UNNECESSARY BITS**  
If you need to remove any parts of the blanking plate, you should do that now. You'll have two options for doing this. First, you may have to remove a bit of metal, in a similar way to the metal blanking plates on your case. These should be rocked gently out until the metal snaps.

Second, some ports may be covered by a flap. In this case, the flap should be bent inwards (towards where the motherboard will be). Make sure that you bend it far enough for the motherboard's port to be given enough clearance to pass underneath.

**4 INSTALL THE BLANKING PLATE**  
From the inside of the case, you need to take the blanking plate and push it into the gap at



**TIP** Motherboards can require a bit of force to be inserted. Push from the sides of the board; don't force any components, as this could cause damage.

the rear of the case. Remember to align it so that it's the same way up as when you measured it against your motherboard.

The ridge round the outside of the plate should clip into the hole. Be warned that this can be really fiddly and the blanking plates don't always fit perfectly. It should, however, clip into place and remain stable without any support.

**5 MEASURE WHERE THE MOTHERBOARD GOES**

Next, you need to see where the screw holes for the motherboard will go. Lie the case flat on the desk and make sure that all the internal cables are out of the way. When you've got a clear case, take the motherboard off its foam backing and slide it gently into the case. Make sure that its rear ports are pushed up against the blanking plate correctly. Take a note of where the screw holes in the motherboard go, and remove the board. Place it back on its foam.

**6 FIT THE RISERS**

You need to fit risers where you noted the screw holes. These will be included with the case and look like tall copper screws. Their job is to hold the motherboard off the bottom of the case, so it isn't shorted out when its contacts touch the metal. The risers simply screw into the pre-drilled holes in

the case. Use as many risers as there are screw holes in the motherboard, making sure that you screw them tightly into position with your fingers.

**7 SLIDE THE MOTHERBOARD INTO PLACE**

Put the motherboard back in the case, making sure that all its screw holes have risers underneath. If some are missing, check to make sure that you haven't screwed the risers into the wrong place. You'll probably notice that the motherboard has a tendency to be slightly off from the risers. This is normal, and is caused by pressure from the backplate pushing against the motherboard. Simply line up the motherboard's ports with the backplate and push the motherboard towards it until the screw holes line up. This will take a bit of gentle force.

**8 SCREW THE MOTHERBOARD DOWN**

With the motherboard in place, you can start to screw it in. Start with the corners, holding the motherboard firmly, so that its screw holes line up with the risers that you put in.

When screwing the screws in, don't use too much pressure as you don't want to break the motherboard. Ideally, you want the screws tight enough for the board to be secure, but not so tight that it feels as though the board is going to start cracking.

Once you've done the corners, you can put screws in the other holes. How many you put in is up to you, but you shouldn't need to do all of them to make the motherboard secure. Keep going until the motherboard is firmly in place.

**9 IDENTIFY ATX CONNECTORS**

With the motherboard in place, you're ready to connect it to the power supply. There are two connectors that you'll need to plug in. The first is the ATX connector. On modern motherboards, you need a 24-pin connector. There's only one of these on the power supply. However, as older motherboards only required a 20-pin connector, there's usually a four-pin connector that can be detached. Make sure that this is connected and that you have an unbroken 24-pin connector.

**10 PLUG IN ATX CONNECTOR**

You need to plug this 24-pin connector into the matching connector on the motherboard. This should be easy to find, but it's usually located by the IDE ports on the right-hand side of the motherboard.

The ATX connector will only plug in one way, so you can't get it wrong. Once it's lined up the connector should plug in smoothly. There's a clip on it to hold it in place. This will require gentle pressure to get it to clip in, but no more. If you're

having to force the cable, then the chances are that you've got the connector the wrong way round. Once the cable is in place, give it a gentle tug to make sure that it's secure.

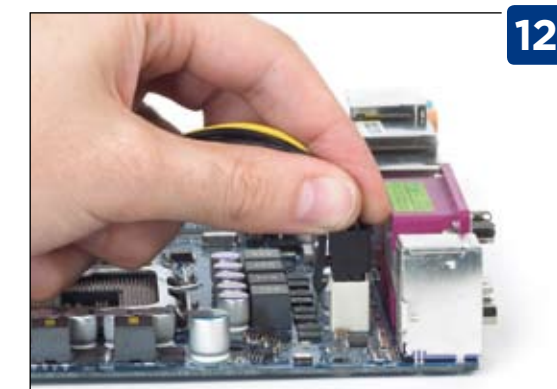
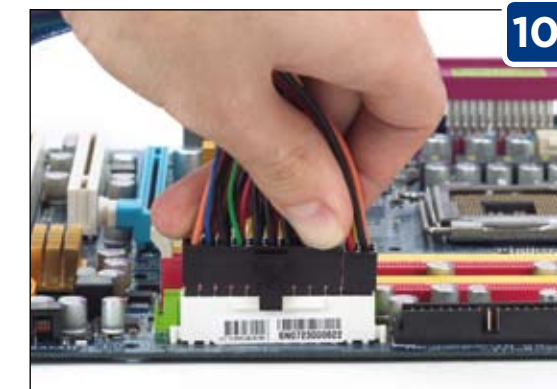
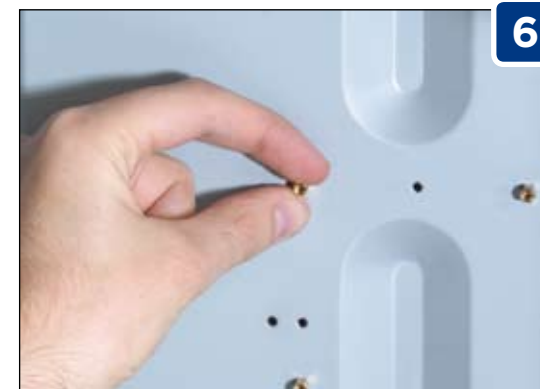
**11 IDENTIFY SECONDARY CONNECTOR**

Modern motherboards also have a secondary power connector. On most boards this is a single four-pin connector, but some require eight-pin connectors. Check to see what your power supply has, as you may need to buy an adaptor.

In a similar way to the 24-pin connector, the eight-pin connector on power supplies can be split into two. If your motherboard only has a four-pin connector, you'll have to split it into two halves. Only one of these will plug into the motherboard.

**12 CONNECT SECONDARY CONNECTOR**

Locate the secondary motherboard power connector. Your board's manual will tell you exactly where it's located, but on most motherboards it's near the processor socket. Next, plug the power supply's secondary connector into it. This plug will only go in one way, so there's no chance of getting it wrong. The connector should slide gently into the plug. You'll need to apply a bit of force in order to get the clip to lock into place, and you should hear it click when it's in properly.



**TIP**  
Make sure that the power connectors are in properly by giving them a gentle tug.