

Instructions for G5 backplate replacement and motherboard mounting.

Kit contents:

Aluminium backplate;

Inner I/O plate in grey acrylic;

2 standoffs and M3 screws for mounting the I/O plate;

Drilling/cutting template for mounting the inner I/O plate to fan holder;

5mm Acrylic motherboard tray complete with brass inserts and standoffs for mATX mounting;

12 x M3.5 screws and washers for mounting motherboard tray to cut-down / original standoffs

10x M3 countersunk screws, nuts and washers for fixing backplate to G5

An assortment of acrylic 3mm washers.

Instructions.

The case should be stripped of all electrical items and fittings prior to kit installation so as to avoid problems with drilling swarf. The directions below do not detail the full stripping process.

BACKPLATE

1. With the G5 stripped and fans removed, offer up the backplate to the rear of the G5 and do a test fit. Test fitting means simply laying the backplate against the rear of the G5 and ,using the PCI slots as a reference and starting from the upper right hand corner place the short M3 screws through aligned holes in the G5 backplate.



2. With the new backplate lying against the G5 back, this will show you where you will need to cut away material. I suggest scribing around the inside of where the fan holes will be, as well as around the I/O cut out. REMEMBER you must keep the material of the G5 backplate that you are going to secure the screws to, so it is a good idea to mark with a pen or similar the position of the mount holes.
3. Once you have marked up the areas to be removed, you can start cutting the G5 back. If in doubt under cut and then go back and cut more later - you can always remove material, but putting it back is not so easy...

The Picture below shows an example of the material to be cut away. Note that the mesh needs to be cut right up to the wall of the PCI compartment, one full column of holes needs to be left on the right hand side and five columns of holes on the left hand side. Also make sure one row of holes remains above the top of the power plug outlet. Generally leave as much material of the original back intact as you can.



4. Once you have made the cuts test fit the new back. This time, once you have loosely fastened the new back plate into place offer up the G5 fan plate (with the tongue facing inwardly - i.e. the opposite way to the original G5 fitment) to the rear of it and see if all fits well. If there is too much of the original back to allow the fan assembly to fit, then make a note of where the problem is, take the backplate off and do any needed extra cutting.
5. Now that everything fits, it is time to modify the fan assembly.



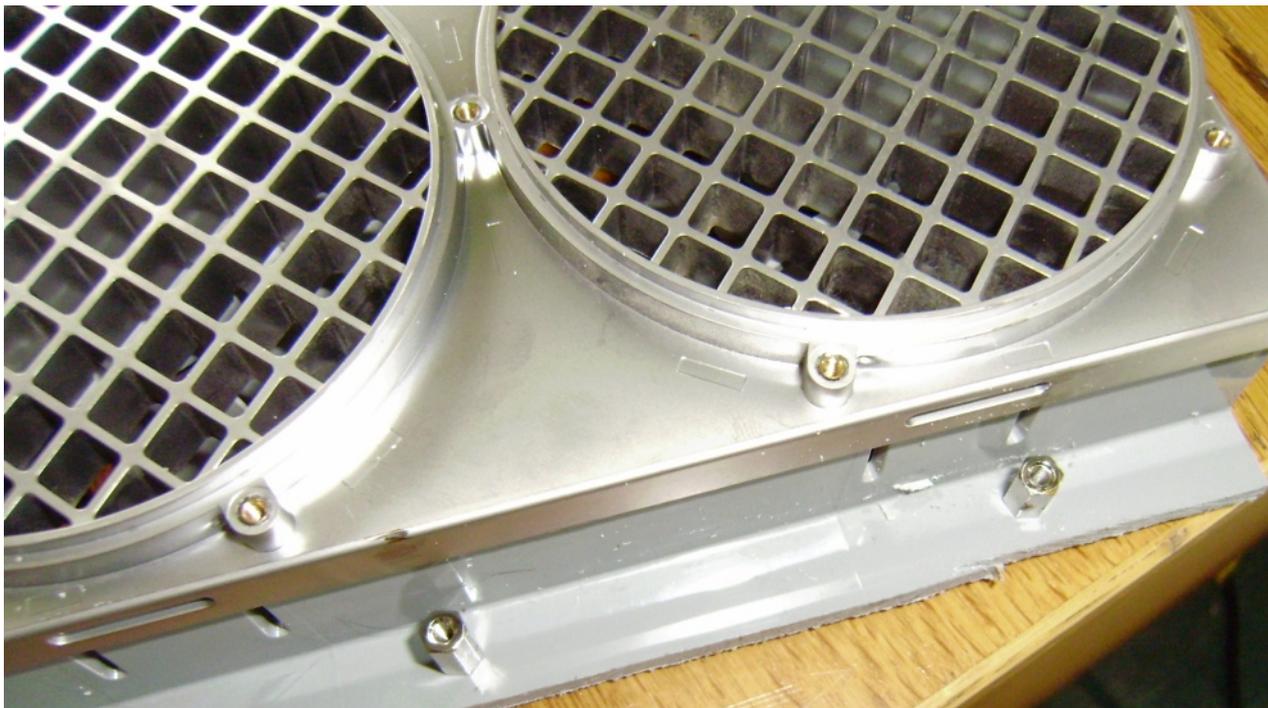
6. In your kit there is a template marked "LEFT RIGHT" and with a pair of holes in it. Align the template as shown above with the right hand end of the template flush with the right hand edge of the tongue portion of the fan holder. Fix the template in position with some sticky tape and then using a 2.8mm to 3mm drill bit drill two holes in the tongue portion in the positions marked by the template holes:



7. After that then saw the tongue along the bottom line of the template (all the way from end to end so you have this left:



8. Now insert the two standoffs into your drilled holes. If you used a 2.8mm drill then the standoffs will cut their own thread when twisted, if you used a 3mm drill then you will need to secure the standoff stem with an M3 nut. Now the fan holder looks like this:



9. Finally, fit the acrylic grey bracket like this (note production models do not have the extra hole shown below left):



10. You have now finished all the adaptations to the back of the G5 and can fix the main backplate into position tightly with the countersunk screws and nyloc nuts provided. If however you are going to now fit the motherboard tray do not put the fan assembly into position yet.

MOTHERBOARD TRAY

1. Turning to the inside of the G5 we come to the fitting of the motherboard tray. First though, there are some “non” standoffs that need to be removed from the G5 case completely. These are the button headed (i.e. not threaded) standoffs that were used to locate the original motherboard and which allowed the motherboard to slide in elongated slots. The photograph below shows one example of these standoffs - all similar standoffs to these should be removed.

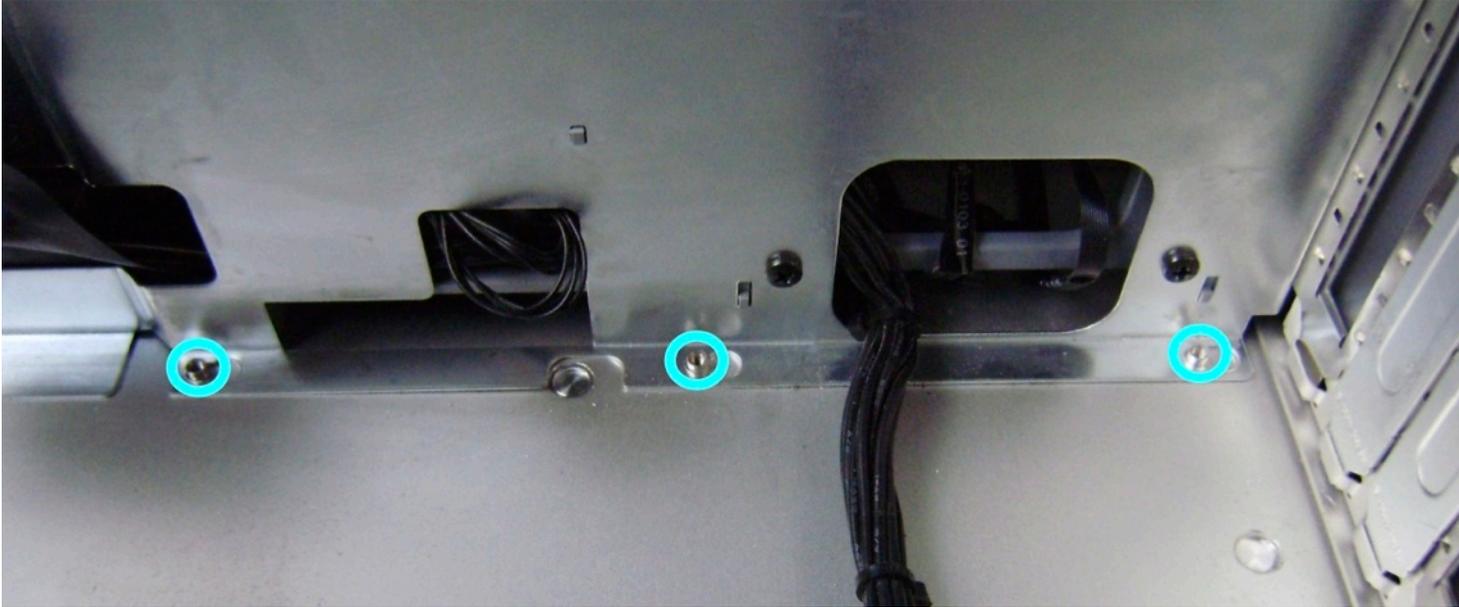


2. Now is a good time to just do a quick test fit of your motherboard tray into the G5. Take the tray and place the tray in the G5 as shown below.



Note that each of the red circled original standoffs shown above will need to be removed but that you will want to keep the blue circled standoffs because you will be using them to fix the bottom of the tray into position.

The top of the tray will be fixed in position by using these shelf mounting points:



3. Having done the test fit, now take the board out of the G5, detach the red circled standoffs (you can simply remove them by tapping them lightly with a hammer to give a sideways jolt), peel off the protective film from both sides of your motherboard tray and put it back into the case.

4. You can now secure the top of the tray by screwing in the supplied black countersunk M3 screws to the three top mounting points shown (use one steel washer for each) , while the board is secured in place at the bottom by putting three of the supplied acrylic 3mm washers over each standoff and then using the supplied M3.5 screws to hold the board securely in place.

[Note: If you bought an ATX board, fitting is exactly the same except there are two additional top mounting points and two more M3 black screws supplied.]

5. If the mATX (or ATX) standoffs have not yet been screwed into the brass inserts on the motherboard tray you should do so now to match the pattern of mounting holes present on your motherboard - note that for ATX trays all mounting points for ATX/mATX and ITX boards have been provided with threaded inserts and that for the mATX trays, mounting points for mATX and ITX are provided.

Mounting your motherboard.

With the tray in position and the backplate secured, you can proceed with your buildup.

If you are re-using the power supply case from the G5 then put that into position, as well as the top metal plate without the rear fan holder in place. Only once the PSU is fixed and metal plate in final position should you replace the fan holder complete with the acrylic grey trim.

When fitting the motherboard, it is suggested that you do so with the rear fans and trim plate already in position.

Loosely associate the metal I/O shield with the rear ports of the mobo and feed the mobo into position on the tray.

Screw the motherboard to the tray with the rest of the M3 countersunk screws that have been supplied. The picture on the right illustrates how the fan holder and metal trim plate above the PSU are a close fit.



Finally, you will need to adjust the metal I/O shield and/or the grey trim plate to get everything sitting in the correct position as the upper (right hand) end of the I/O shield actually is held/wedged in place by the end of the PCI slot area. This is inevitable due to the design of the G5 - this will give an appearance as shown on the right:



Sit back and admire your handiwork!



For all queries, please email Dave: info@thelaserhive.com