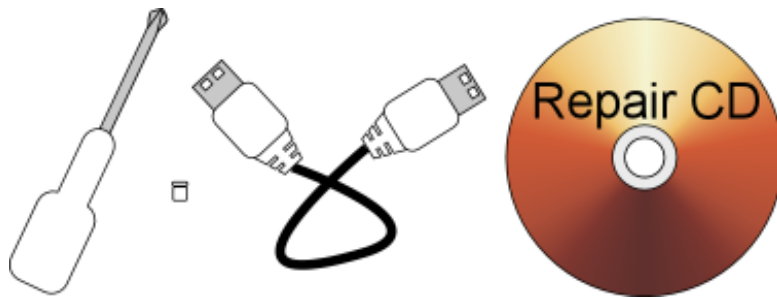


## Router Repair / Flashing Latest Firmware via USB

If the link light on your router does not stay on or flash after power on, then your router is most likely dead (meaning that the flash memory is corrupted somehow). If this is the case you will have to do a USB firmware flash in order to fix it.

Tip: You may want to print this guide out so that you can follow it while your PC is off or rebooting.

### You will need:-

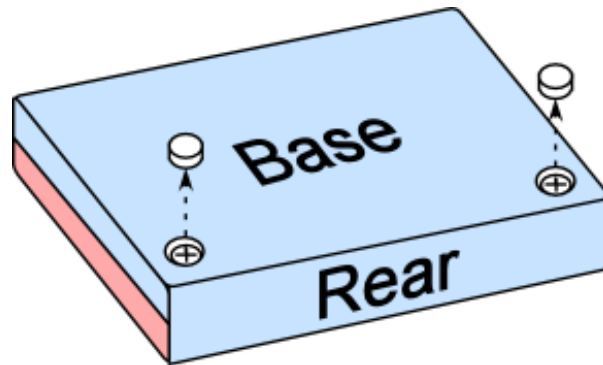


- A PC with a Intel or Via chipset (Intel is best)
- A cross/Philips head screwdriver to open the router.
- A USB cable to connect the router to the PC via the USB connector.
- A jumper like the ones used on the back of hard drives.
- Mugwump's firmware CD available from here:  
<http://www.origo-repair.org.uk/> Full instructions on how to burn the CD and make it bootable are provided on the website.

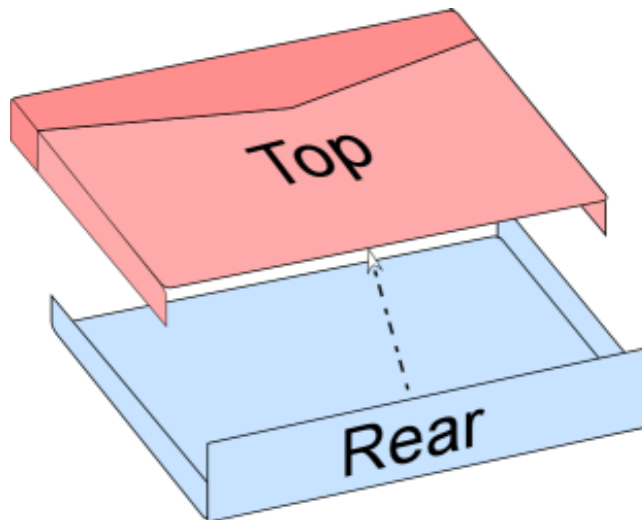
**What you do:-**

**Stage 1: Open the router**

- Switch off the router (if possible). Unplug all cables from you router. Turn the router upside down and lay it on a flat surface. If there are any small round rubber feet, gently prise them off (with a fingernail or flat-blade-screwdriver). Put the feet to one side. Unscrew any screws (usually two) and keep them somewhere where you won't lose them.



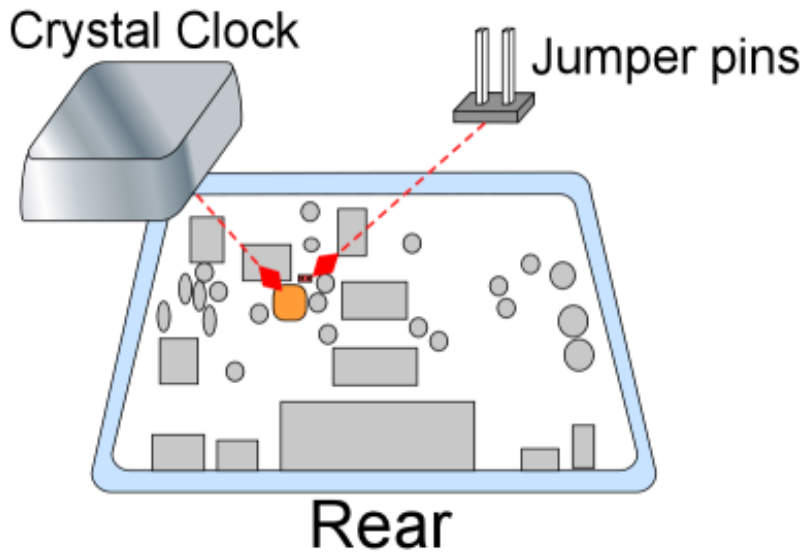
- Turn the router the right way up. Carefully pull the two halves of the router casing apart. The front panel may have a slight lip on it making it a little tricky – don't use brute force. Gentle wiggle the casing until it comes free.



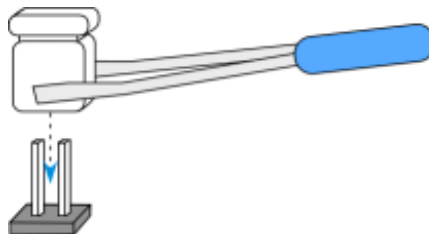
## Stage 2: Add the jumper & connect the router via USB to the PC

- You may want to discharge any static electricity you may stored in your body by touching something 'earthed' like a metal radiator.
- Locate the jumper pins (pair) on the circuit board. The pair should be situated near to the small shiny metal component (the crystal clock). Carefully place the jumper onto the pins, try to avoid touching any of the circuit. You may want to use tweezers.

### *Finding the jumper pins*



### *Placing the jumper with tweezers*



- Disconnect all USB enabled devices from your PC, including hubs (to be thorough).
- Insert a USB cable into the socket on the router and plug the other end of the cable into one of your PC's USB ports.



- Make a note of the router's MAC address. This is a unique number that identifies the router. An example would be 0009F300DB1D (it is a 12 digit number). On the circuit board look for a sticker (usually on one of the chips). You may also find the MAC address on a sticker on the underside of the case with a barcode (see diagram above).

### Stage 3: Flash the router

- If your PC is off, switch it on now. Wait for OS (Windows, Linux etc) to load.
- Insert Mugwump's CD and close any auto run's that occur.
- Reboot the PC and press F8 before bootup.
- Select to boot from the CD.
- Connect the power cable to the router at this point and ensure the PWR light comes on. The PC cannot flash the router if it isn't switched on.
- On screen, select the firmware you wish to flash with (latest at the bottom is best). Select the 'fast pc' if your PC's CPU speed is above 900MHz or 'slow pc' otherwise. Selecting the fast option will start a PC slowdown utility to slow your PC down, as flashing must be done with a processor speed of 900Mhz or less
- Type **rm\_usb.bat** once you get a prompt.
- You may be prompted to enter the "**Start MAC Address**". Type in the router's MAC address (the one you took from the label) - type it in 2 digits at a time with a hyphen, "-" between each pair of digits, e.g. 00-09-F3-00-DB-1D.
- You may also be prompted for the "**End MAC Address**", this is the same for all Origo routers and should be entered like so: **00-09-F3-FF-FF-FF**.
- When flashing is over, turn off the router by removing the power cable. Remove the jumper (carefully) and USB cable. Do the reverse of the opening procedure: replace the top half of the case and use the screwdriver to put the screws back in.

### Stage 4: Reconnect the router as before

- Connect it back up to the PC via the LAN/USB, eject Mugwump's CD, and re-insert your USB devices. Reboot your PC.
- Turn on the router again. Within 2 minutes the link light should flash, and then your router will be fixed!

#### Credits:

Illustrations and wording	-	Neo aka NeOrigo
Original wording	-	Kieran
Original guide	-	Nigel
Repair CD	-	Mugwump

For more information on Origo (and other) routers visit [www.routertech.org](http://www.routertech.org)