

Oric Maintenance and repair - PSU

INTRO.

Our poor old Orics are getting on a bit. Inevitably there are things that will go wrong. Sometimes this is natural. Electronic components can fail through lack of use as well as fail through repeated use. Fluff and dust find their way into the most inconvenient places. Moisture is serious bad news for electrical equipment. And then there's accidental damage.

It sounds a bit of a nightmare, and maybe it is if you can't deal with it. This series is an attempt to show you some of the ways to fight back and keep your Oric up and running.

PROJECT.

Recently I've had one or two enquiries about power supplies. Oric's sold on Ebay, (the internet auction company), have been sold without a PSU or with a damaged one. The problem is that the original Oric PSU has a plastic earth pin which gets snapped off. The mains plugs rely on the earth pin being inserted first, opening a flap covering the more dangerous connections. So whilst the PSU still works, you can't get it into the wall socket.

SOLUTION.

What we are going to do is replace the broken pin with a brass one from an ordinary 13A plug. If you are at all like me you will have a mess of electrical bits and pieces which is bound to have an earth pin amongst the chaos, so you don't need to go out and buy a new plug. If not then You'll just have to go and buy one. !

EQUIPMENT.

You'll need:-

Needle files, (not those £1.50 a packet ones - proper ones please), drills of various sizes, a hand-drill or battery operated drill, (Mains ones will be too fierce for this), junior hacksaw, Philips screwdriver and maybe some superglue or araldite.



METHOD. First read this. Electricity is dangerous and you shouldn't mess around with it ! We accept no responsibility if you get injured - and you don't get your subscription refunded if you die. So be careful !!! Having said that this is perfectly safe - as long as you don't do something silly.

First job is to chop the remainder of the plastic pin off. Lay the hacksaw blade flat on the body of the PSU and gently pull it back and forth so that you cut the pin off flush. I necessary smooth off any excess with a file. (And make sure you use a handle on you file ! Safety first !!!)

Next problem is to remove the little plastic plugs covering the screws holding the PSU together. This can be tricky. I don't recommend using knives and such to lever things. They have a tendency to snap. An instrument screwdriver may do the trick , but they can also snap. It isn't worth risking your eyes for. ! The safest way to get these things out, is to just drill a hole in them. They should then come out easily enough, if not you can pass the screwdriver through the hole and undo the screws the little blighters are trying to cover up.



Inside the PSU you'll see the electronics are safely shielded behind plastic. Replacing the earth pin with a metal one is therefore no problem because it isn't going to come into contact with anything that it shouldn't. Now we need to make a hole to fit the new pin. The best way is to drill out the rectangular piece that you cut off. You may need to use a centre punch to make sure the drill doesn't slip. You may also wish to use a small pilot hole before drilling a larger one. Using a drill bit of 3mm or 3.5mm, make a hole close to the top of the rectangle and one to the bottom. As you may have found, the wires connecting to the pins make things a little awkward, so take things slowly and carefully.

With a hole through the plastic you can then use needle files to open the hole to the correct shape. Impatient sods like me may try and heat the end of the brass pin a little and insert that in the hole so that it melts the plastic just enough to open the hole. Don't try it ! The chances are this will go wrong. (OK, I did it and it worked fine for me - but I'm a professional repairer , and I've got spare PSUs!) Just keep filing and checking to see if the pin fits yet. Checking is the key. If you don't keep trying you can end up over filing the hole and have a pin that doesn't fit properly.

So once you've got the pin through the hole you'll find that the PSU screws back together without anything else needing doing really. Make sure the cable goes back in the slot !

You may like to use a drop of superglue to hold the pin in place. Make sure it fits into a socket properly before you do this. If you have over-filed a bit and have gaps then use a little araldite around the hole to fill it in. It may be worth pushing the PSU part way into a socket to make sure the pin glues into the right position. (Push it all the way in and you'll stick your PSU into the mains permanently – don't !!!)

Here's a little trick for you if you use araldite. You can colour the glue using a TINY amount of Rotring stylus pen ink, or water colour paint from a tube. (Different types of epoxy glue accept different types of colour or dye – powder paint can be quite good with most kinds) Use too much and it may make the glue very soft. File off any excess when the glue is dry.

CONCLUSION.

Well that's it done. One useless bit of kit restored to a working PSU. It is easier to do than it might sound here. I've had to be a bit cautious telling you not to do anything that might cause you to bleed all over the place, because people tend to sue at the drop of a hat, but there isn't anything really dangerous here. (Honest).

