

ENAMEL & PORCELAIN DIAL REPAIR KIT INSTRUCTIONS

Contents : Resin (2 parts), powdered clay, colour pigments - blue, white & yellow, Numeral ink, pen, glaze, thinners, abrasive paper and brush.

First examine the dial to be repaired. The dial will fall into one of two categories, chipped or hair line cracks.

Firstly, let us take the chipped dial and assess the colour of it. A lot of dials are not pure white, so if you take a piece of pure white paper and hold it next to the dial, you will get some idea whether or not the dial is pure white, tinged slightly blue or a cream or ivory shade. Take the epoxy resin in the tubes marked 1 & 2, and on to a piece of glass or stiff card, squeeze out a small amount of the No.1 mixed with a squeeze of No.2 hardener. Now at this stage, if you are not familiar with dial repair, it may be advisable to put only 30% hardener to the No.1 resin, which will then give you longer to effect the repair. Mixed in equal parts it will dry in about 5 minutes, mixed with only 30% hardener it will take about 20 minutes. Try not to squeeze out more than you need, because that which you don't use on the dial, cannot be used again as it goes hard. Take the powdered clay, having first smoothed out any lumps, and mix in a small quantity with the resin, using your mixer sticks to stir together. A little experimentation is called for now with the colour pigments. If the dial is cream in colour, then the powdered clay and resin together may be the correct shade, or only a minute speck of the yellow pigment may be needed. If the dial is very white, you need about 50/50 white pigment and powdered clay, plus a speck of blue pigment added to the resin should be about right. In any event, be very cautious with the blue and yellow pigments, as a little gives quite a deep colour.

Now you are ready to fill in the chip. Smooth the clay mixture into the hole and allow to dry completely, which will vary between 5 - 20 minutes depending on how much hardener you added initially. Then take a small square of lubricant paper and sand the patched hole until it is level with the rest of the dial and perfectly smooth, taking care to disturb as little of the surrounding glaze as possible. If the chip was out of one of the numerals on the dial, you will need to re-draw those back onto the dial. It is suggested that you mark out with a pencil first and then using the pen and numeral ink fill in the missing numbers. Allow to dry completely (about 1 hour). Next you need to glaze your repair. Pour out a small amount of glaze, brush in light feathered strokes over the repair. Very white dials may need a dash of white pigment added to the glaze. Allow to dry for a few hours before handling.

With the hair line cracks you can first try a fairly simple remedy. Take the dial and first assess the colour using the white paper method. Take a small quantity of glaze. Add a small amount of white colour pigment which is the base colour, and then add a minute speck of either blue or yellow to adjust the shade. Now brush this over the hair line crack. Sometimes this treatment is sufficient. However, occasionally the ageing process underneath the crack has spread too far, and then there is no alternative but to break through the old glaze along the crack, using a pin or sharp knife point or other suitable tool. From then on you follow the instructions for chipped dials.

Use water to clean your pen after the numeral ink. Use the thinners supplied to clean your brush after using the glaze.

N.B. For the best results with the pigments and powdered clay, it is best to grind the powders as finely as possible. This can be done in a pestle & mortar, or between two spoons.