

Electronic Product Production.

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a. PCB Assembly.

First Inspect PCB for hairline shorts and cuts and also traces of unwanted copper in the edges and repair them. Also Check if all Drill holes & Slots are proper size and PCB is Fitting in its Place properly, This is because Drilling and Filing should not be done after assembly as it causes serious reliability problems.

Second populate all the resistors, Jumpers, Diodes and Ceramic Capacitors these are tough components. Then Insert all Transistors, LEDs, Displays, Electrolytic Capacitors and IC s (Bases), Here care should be taken not to overheat any component as it may damage them. Lastly Solder Connectors, Relays, Coils and Transformers which may require a high wattage Iron.

b. Precautions during Production.

- ◆ Observe Polarity for Diodes, EI-caps, Connectors, etc.
- ◆ Make sure of Pin 1 for IC s, Regulators, Transistors and Mosfets before insertion.
- ◆ Avoid bases for IC s in production as these fail on use.
- ◆ Make use of Electrostatic protection for CMOS devices.
- ◆ When Cutting Leads use protective Goggles and do it in a separate place as the cut leads fly all over the place.
- ◆ Use Iso Propyl Alcohol (IPA) as degreasing agent on PCB.
- ◆ Water & Detergent wash is very good but only if coils, Transformers, Relays are hermetically sealed- Impregnated.
- ◆ Use a Lacquer-Varnish or RTV rubber coat on both sides of PCB including on the components to prevent corrosion and also it helps maintain accuracy-precision.
- ◆ Lead is highly poisonous, use gloves or wash hands with soap after work is over. Flux, IPA, Thinner Fumes can cause respiratory health problems. Work in a ventilated area use Exhaust Fans and Open Windows.
- ◆ Dispose of Metal, Plastic and Chemical waste separately and well packed as these can contaminate the environment and also cause Injury.

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