

Technical Information & Data for the MCK

The **Kinetronics** Memory Card Cleaning Kit (**MCK**) is intended primarily for exposed, external contacts. It provides two separate beneficial actions:

- 1) Cleaning action
- 2) Corrosion inhibiting action

The cleaning action of the solvent is most effective when applied with a cloth in a rubbing motion. The solvent will loosen most contaminants and the cloth will absorb these contaminants along with the majority of the solvent.

The second action of this solution is that a protective residue is left on the contact which acts as an anti corrosion agent, preventing contact problems presented by corrosion products. (Most oxides are non conductive, and can prevent electrical contact from being made if present) Oddly enough, this action is fairly important on gold plated contacts since the gold plate is quite thin and soft enough to be damaged (scratched) in normal use. Depending on what material the gold was deposited on the scratched area is prone to oxidation. The oxide formed in this situation can protrude above the contact surface and actually hold the mating contact away from the remaining gold plated area. This problem is more common on the exposed, wide area contacts, such as the ones illustrated on the package. The reason for this is that these contacts mate with a much lower force per unit area than the enclosed contacts.

Enclosed contacts use spring pressure to produce a high contact pressure on a much smaller contact area. This higher pressure coupled with the wiping action of the insertion process is more effective in physically removing oxide contaminants from the pins. Thus, these connectors are more oxide tolerant. At the same time however, the higher contact pressure causes greater plating displacement creating the opportunity for more corrosion.

For the above reasons, the cleaning function of the solution is most applicable to the open contact form connector, since the solution cannot be rubbed onto the contacts of the enclosed connector.

The corrosion inhibiting action is useful for either type of connector, but will be most effective on the enclosed connector if the product use is begun early in the connector's life, as it is a preventer of corrosion rather than a fix for a connector that is already corroded.

Our tests have not shown any adverse chemical compatibility problems with memory cards that we are familiar with. That is not to say that our tests are all inclusive. The most aggressive chemical in the product is mineral spirits. This is structurally harmless to most plastics and all metals and electronic components present in these devices. If applied sparingly to the connectors no problems should be anticipated. If applied excessively or sloppily, I expect that some labels could suffer damage.