

FIELD CLEANING INSTRUCTIONS

Keys & Tokens

In Datakey Electronics' experience, the vast majority (>90%) of "failed" keys or tokens actually just need cleaning. Also, in many cases, apparent "key failures" are actually a result of worn or damaged Keyceptacles® or Receptacles. We recommend that all users implement a proactive Keyceptacle/Receptacle replacement program that is appropriate to the rigors of their environment.

You should clean keys and tokens if you are experiencing any of the following:

- If any of the key/token contacts are not highly visible, bright, and shiny when viewed under a bright overhead light or reading lamp
- If the key/token is non-functional or works intermittently
- If the key/token is oily, sticky or greasy – visually and/or to the touch
- If the key/token has an overall accumulation of dirt, grime or foreign material

Cleaning Procedure:

1. Mix 1/2 - 1 level teaspoon of a *good quality dish detergent* in 1 - 2 cups of warm water.
2. Scrub contacts briskly with a stiff bristled toothbrush or any industrial brush with fine, stiff plastic or nylon bristles. Dip the brush in the soap solution, then scrub contacts vigorously, two or three times, end-to-end. The key/token can also be immersed in the solution while being scrubbed. Most keys or tokens can be cleaned in 5 to 10 seconds per side. Scrub until all contacts appear bright and shiny under an overhead light. NOTE: If device is oily, scrub entire item.
3. Rinse well in hot, running water until key/token is free of soap residue. Dry immediately and thoroughly with paper or cloth towel.
4. Evaluate cleanliness, verify key/token and all contacts are clean using a good overhead light. Worn contacts may appear to have a dark surface on the edge caused by the outer contact plating having worn through. Blocked contacts may have damaged teeth or foreign material lodged in them. NOTE: a key/token that is very dirty may take two or three cleaning cycles.
5. Test the key/token through several read/write cycles to assure that it functions properly. If not, repeat cleaning process. (Often a key/token that does not function after cleaning may still have a thin film that is difficult to see, so re-cleaning and re-testing are essential.)
6. If, after completing all of the above steps, the device is still non-functional:
 - a. Even after repeated cleaning, a key/token that is very dirty may still have oil residue inside the key that can cause intermittent operation. If this is the case, soak key/token in isopropyl alcohol (available in drug stores or chemical supplier) for two to three hours, shaking or stirring periodically. Allow to dry and retest. If still intermittent, soak overnight (with some agitation), allow to dry and retest.
 - b. If key/token is still non-functional, oven bake for one to two hours at 125° Fahrenheit (52° C). Allow key/token to cool thoroughly and retest. This will often fix the problem by drying the trapped residue causing leakage paths.
 - c. If the key/token is still non-functional, consult the factory.

