



Positronic Industries  
**white  
paper**

# Large Surface Area Contact Mating System



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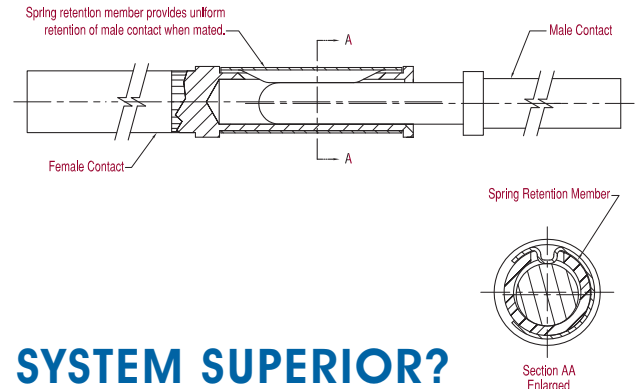


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- Separates mechanical and electrical functions for superior performance
- Low contact resistance provides energy savings and minimized voltage drop across the contact.
- “Closed Entry” design prevents damage to female contacts and will not allow misaligned or bent contacts to enter
- Precision machined from solid, high conductivity copper alloy
- Uniform insertion/withdrawal forces through repeated mating cycles



## WHY IS THE L.S.A. SYSTEM SUPERIOR?

**T**he primary function of a connector contact is electrical conductivity. Also, a mechanical function is required to provide normal force between male and female contacts.

In order to provide for proper mechanical characteristics, material that has good memory or “elasticity” must be chosen. This will ensure contact normal force in a coupled condition and allow for repeated coupling and uncoupling.

Unfortunately, many materials that have good memory characteristics have low electrical conductivity. For instance, beryllium copper is a good choice for mechanical function; however, some beryllium copper alloys are poor conductors and have relatively low conductivity rates.

The conductivity path of many contact designs goes directly through materials that have been chosen based on mechanical need. If these materials have a low conductivity rating, increased contact resistance will result.

Positronic Industries Large Surface Area Contact System separates the mechanical and electrical functions. A spring retention member provides normal forces, while the electrical conductivity path is through highly conductive contact material.