

Solutions for the poor conductivity of interlock devices.

Problems:

- 1st. Modern electronics may not work well with the mechanical contacts. The current for a computer input is far below the requirement for contacts to conduct.
- 2nd. Oxidation is also another contributing factor for the poor conductivity of interlock devices.
- 3rd. Sanding contacts by emery paper or filing devices may compound the poor conductivity problems after times.

Solutions:

- 1st. Increasing the current to 40mA by connecting a resistor in parallel with the input based on the applied voltage.

Example:

Applied Voltage = 120VAC

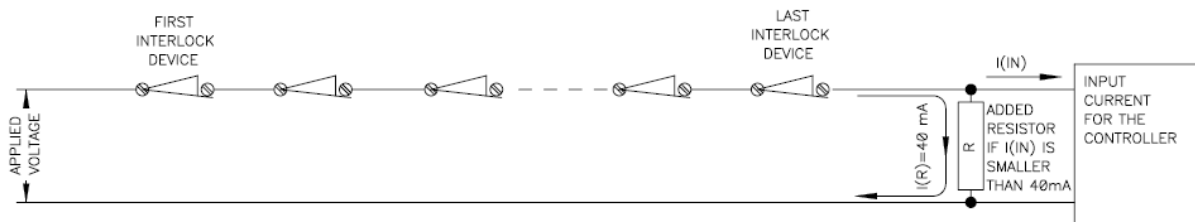
The Resistor Value will be:

$$\text{Resistor Value} = \frac{120}{0.040} = 3000 \Omega = 3K\Omega$$

The minimum wattage of the Resistor is calculated as shown:

$$\text{Resistor Wattage Value} = 3000 \times 0.040^2 = 4.8 \text{ Watts}$$

Practically, a resistor of 3K Ω , 20W should be used in this example.



2nd. The contact cleaner, DeoxIT DN5 Spray DN5S-6N, from CAIG Laboratories, Inc. (USA) should be used to spray on the contacts. The link to CAIG Laboratories, Inc. is provided here for convenience:

<http://www.caig.com>

DeoxIT® DN5 Spray Contact Cleaner & Rejuvenator

Part No.: DN5S-6N

Container Size: 163 g

Product Description:

Unique contact cleaner, rejuvenator, conductivity enhancer and lubricant; dissolves oxidation and corrosion on metal surfaces, fills in microscopic gaps and reseals surface for better contact to enhance flow of electricity. Improves connector performance/reliability. Temperature range: -34 to +200°C.



Features/Benefits:

Spray - Quick Dry, Non Drip and Safe on Plastics.

DeoxIT® D100L concentrate has approximately 20% chemical cleaning action. Excellent cleaning/deoxidizing, good protection, no ozone depletion. Improves conductivity and reduces intermittent connections. Reduces arcing, RFI, wear and abrasion.

Cleaner Audio - Clearer Video - Reliable Data.

Formulation:

5%	DeoxIT® D100L
70-74%	1,1,1,3,3-PENTAFLUOROPROPANE (460-73-1)
1-5%	isopropyl alcohol (67-63-1)
20%	hydrocarbon propellant (75-28-5, 74-98-6)

3rd. If contacts were sanded prior to the problem of poor conductivity of the interlock devices, then the old sanded interlock contacts should be replaced with the new un-sanded interlock contacts.

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