

SMALL RESISTANCES PRODUCE LARGE VOLTAGE DROPS

Where 200 amps is flowing through a resistance of only 0.01 ohm. That much resistance is too small to be read with most digital ohmmeters yet produces a large voltage drop of 2.0 volts. A two volt drop is a 16% voltage loss of the original 12.6 volts.

$$**E = 200 \text{ amps} \times 0.01 \text{ ohms}**$$

$$**E = 2.0 \text{ volts dropped}**$$

If the resistance increases from a mere 0.01 ohms to only 0.02 ohms and the same 200 amps of current is flowing the voltage drop doubles to 4.0 volts.

$$**E = 200 \text{ amps} \times .02 \text{ ohms}**$$

$$**E = 4.0 \text{ volts dropped}**$$