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Inverter System Cable Size Guide

		Recommended Minimum Cable Gauge Size -- Voltage Drop of .5 volt with 125C Temperature Rated Cable							
Inverter Rated	**Fuse Size**	**Cable Length 4 Feet***	**Cable Length 7 Feet***	**Cable Length 10 Feet***	**Cable Length 13 Feet***	**Cable Length 16 Feet***	**Cable Length 19 Feet***	**Cable Length 22 Feet***	**Cable Length 25 Feet***
1000 Watts	125 Amps	6 ** =.25VD	6 = .44VD	4 = .41VD	2 = .33VD	2 = .40VD	2 = .48VD	1 = .45VD	1 = .50VD
1250 Watts	150 Amps	4 ** = .22VD	4 = .36VD	2 = .31VD	2 = .41VD	2 = .50VD	1 = .48VD	0 = .44VD	0 = .49VD
1500 Watts	175 Amps	4 ** = .27VD	4 = .44VD	2 = .37VD	2 = .48VD	1 = .48VD	0 = .45VD	00 = .42VD	00 =.47VD
1800 Watts	200 Amps	4 ** = .31VD	2 = .31VD	2 = .44VD	1 = .47VD	0 = .46VD	00 = .43VD	00 = .49VD	000 = .45VD
2000 Watts	225 Amps	2 ** = .20VD	2 = .35VD	2 = .49VD	0 = .41VD	00 = .40VD	00 = .48VD	000 = .44VD	000 = .48VD
3000 Watts	350 Amps	0 ** = .13VD	0 ** = .31VD	0 = .44VD	00 = .45VD	000 = .44VD	0000 = .40VD	0000 = .46VD	00+00 = .43VD

* The total cable length must be factored into cable length (ground and positive cable length combined).

** This cable gauge calculation uses AMPACITY and RESISTANCE to determine wire gauge.

1. The above cable chart provides a cable gauge size and length of cable that will provide a .5 volt drop between the inverter voltage and battery voltage at full rated output of the inverter. The resistance of two terminal connections has been added to the total cable (VD) voltage drop (.00001 per connection).

2. Cable identified as 00+00 indicates two 00 cables are run in parallel.

3. Cable gauge of larger size is acceptable as a sustitude for the inverter cable.

Example

Microwaves are generally rated by cooking power, for example, 800 watts. The input energy required to generate 800 watts of cooking power could be as high as 1400 watts. If your inverter is rated at 1000, this 1400 watts of power required could cause the inverter to be in an overload condition and shut off.

How to calculate how much power your inverter pulls from the batteries:	**Inverter Rated:**	**Typical Inverter Efficiency:**	**Power Required from Batteries:**	**(Amp = Watt / Volt)**
	1800 Watt	x 90%	= 2000 Watts	/ 12.0 Volts = 167 Amps