



Shop: (573) 334-2632 Toll Free: (888) 334-2632
 2210 Broadway Cape Girardeau MO 63701
 www.NationsStarterAlternator.com

WIRE SIZING CHART

Total System Length (length of positive feed + length of negative return) in inches

SYSTEM AMPERAGE

	24"	48"	72"	96"	120"	144"	168"	192"	240"	288"	336"	400"	500"	600"
10	16ga	16ga	16ga	14ga	14ga	14ga	12ga	12ga	10ga	10ga	10ga	8ga	8ga	6ga
15	16ga	16ga	14ga	14ga	14ga	12ga	10ga	10ga	8ga	8ga	8ga	6ga	6ga	6ga
20	16ga	14ga	14ga	12ga	12ga	10ga	10ga	8ga	8ga	8ga	6ga	6ga	4ga	4ga
25	14ga	14ga	12ga	10ga	10ga	10ga	8ga	8ga	6ga	6ga	6ga	4ga	4ga	2ga
30	14ga	14ga	12ga	10ga	10ga	8ga	8ga	8ga	6ga	6ga	4ga	4ga	2ga	2ga
40	14ga	12ga	10ga	8ga	8ga	8ga	6ga	6ga	4ga	4ga	4ga	2ga	2ga	1ga
50	12ga	12ga	10ga	8ga	6ga	6ga	6ga	4ga	4ga	4ga	4ga	2ga	2ga	1ga
60	12ga	10ga	8ga	8ga	6ga	6ga	4ga	4ga	4ga	2ga	2ga	1ga	1/0	1/0
70	12ga	10ga	8ga	6ga	6ga	4ga	4ga	4ga	2ga	2ga	2ga	1ga	1/0	2/0
80	12ga	8ga	8ga	6ga	4ga	4ga	4ga	2ga	2ga	2ga	1ga	1/0	2/0	2/0
90	12ga	8ga	6ga	6ga	4ga	4ga	2ga	2ga	2ga	1ga	1/0	1/0	2/0	3/0
100	10ga	8ga	6ga	4ga	4ga	4ga	2ga	2ga	1ga	1ga	1/0	2/0	3/0	4/0
120	10ga	8ga	6ga	4ga	4ga	2ga	2ga	2ga	1ga	1/0	2/0	3/0	4/0	4/0
140	10ga	6ga	4ga	4ga	2ga	2ga	2ga	1ga	1/0	2/0	2/0	3/0	4/0	2-2/0
160	8ga	6ga	4ga	2ga	2ga	2ga	1ga	1/0	2/0	2/0	3/0	4/0	2-2/0	2-3/0
180	8ga	6ga	4ga	2ga	2ga	1ga	1/0	1/0	2/0	3/0	4/0	2-2/0	2-2/0	2-3/0
200	8ga	4ga	4ga	2ga	1ga	1ga	1/0	2/0	3/0	3/0	4/0	2-2/0	2-3/0	2-4/0
250	6ga	4ga	2ga	1ga	1/0	1/0	2/0	3/0	3/0	4/0	2-2/0	2-3/0	2-4/0	2-4/0
300	6ga	4ga	2ga	1ga	1/0	2/0	3/0	3/0	4/0	2-2/0	2-3/0	2-4/0	2-4/0	
350	6ga	2ga	1ga	1/0	2/0	3/0	3/0	4/0	2-2/0	2-3/0	2-3/0	2-4/0		
400	4ga	2ga	1ga	2/0	3/0	3/0	4/0	2-2/0	2-3/0	2-3/0	2-4/0			
450	4ga	2ga	1/0	2/0	3/0	4/0	4/0	2-2/0	2-3/0	2-4/0	2-4/0			
500	4ga	1ga	1/0	3/0	4/0	4/0	2-2/0	2-3/0	2-3/0	2-4/0				
600	4ga	1ga	2/0	3/0	4/0	2-2/0	2-3/0	2-3/0	2-4/0					
700	2ga	1/0	3/0	4/0	2-2/0	2-3/0	2-3/0	2-4/0						

This table was calculated for a 12-volt system, assuming a .36 voltage drop for starting and a .44 voltage drop for charging, at a maximum operating temperature of 150°F. A larger size wire can be used to decrease the voltage drop or to operate at a higher temperature.

- For 6-volt use, multiply amperage by two.
- For 24-volt use, divide amperage by two.