

# For Your Information



## Wire and cable carrying capacities

Cable Gauge	Light circuit cable (Continuous duty)	Battery cable (Intermittent)	Welding cable (Up to 50 feet)
18	3 amperes		
16	6 amperes		
14	15 amperes		
12	20 amperes		
10	25 amperes		
8	35 amperes		
6	50 amperes	90 amperes	60 amperes
4		125 amperes	150 amperes
2		150 amperes	200 amperes
1		200 amperes	250 amperes
1/0		225 amperes	300 amperes
2/0		275 amperes	400 amperes
3/0		325 amperes	
4/0		400 amperes	

## Recommended cable gauges

Ampere load	To 10ft.	To 20ft.	To 30ft.	To 40ft.
3	18 awg.	16 awg.	14 awg.	12 awg.
6	16 awg.	14 awg.	12 awg.	10 awg.
15	14 awg.	12 awg.	10 awg.	8 awg.
20	12 awg.	10 awg.	8 awg.	6 awg.
25	10 awg.	8 awg.	6 awg.	4 awg.

## Voltage drop

Cable gauge	Cable load	Voltage @ 25ft.	Voltage @ 50 ft.
16	6	11.34	10.69
12	20	11.14	10.31
8	35	11.41	10.83
2	125	11.48	10.93
2/0	225	11.51	11.02

## Recommended A.T.A. color coding

white	Ground return to towing vehicle
Black	ICC required marker and clearance ramp
Yellow	Left hand directional signal
Red	Stop lamp
Green	Right hand directional signal
Brown	Tail lamp, 3 bar marker lamps and clearance or marker lamps other than ICC required
Blue	Auxiliary circuits

## Conductivity and resistance of metals

Element	Electrical Conductivity	Resistance in Micro-ohms
Aluminum	64.9%	2.83
Cadmium	22.7%	7.60
Copper	101.0%	1.72
Gold	71.2%	2.44
IrQU	17.6%	10.00
Lead	8.4%	22.00
Nickel	25.2%	7.80
Silver	106.0%	1.59
Tin	15.0%	11.50
Zinc	29.1%	5.80

## Wire gauge conversion

American wire gauge	Circular mil area
26-24	230-451
26-22	230- 700
24-20	451- 1200
22- 18	639- 1909
18- 14	1909-4208
14- 12	2409-4208
12- 10	3830- 6695
8	6088- 10550
6	22880 - 26813
4	38910-42613
2	60990 - 66832
1/0	81807- 105800
2/0	124900- 133800
3/0	157600- 168000
4/0	198700-212200