

Power Wire Spec Sheet

Model	Outer Dia	Strand Gauge	No. Of Strands / Material	Surface Area	Diameter	AWG Equivalent
KOL1/0	0.625"	36 AWG	5145 Tinned OFC	66.885mm^2	10.659mm	2/0 AWG
KOL4	0.4375"	36 AWG	2058 Tinned OFC	26.754mm^2	6.741mm	2.97 AWG
KOL8	0.3125"	36 AWG	805 Tinned OFC	10.465mm^2	4.216mm	7.04 AWG
KOL10	0.1875"	36 AWG	462 Tinned OFC	6.006mm^2	3.194mm	9.46 AWG
eKo1/0	0.5625"	36 AWG	3920 OFC	50.96mm^2	9.304mm	0.23 AWG
eKo4	0.375"	36 AWG	1568 OFC	20.384mm^2	5.884mm	4.18 AWG
eKo8	0.250"	36 AWG	559 OFC	7.267mm^2	3.513mm	8.65 AWG

Reading this Graph:

Outer Diameter – Diameter of entire cable including jacket in Inches.

Strand Gauge – The gauge of copper used for each individual strand in our cable.

Surface Area – The number of strands, multiplied by the gauge in decimal (0.013)

Diameter - The diameter of the complete copper cross section.

AWG Equivalent – American Wire Gauge (AWG) Standards based on Surface area in Square Millimeters (mm^2). The lower the number, the larger the cable. Example the eKo1/0 rates at 0.23 AWG meaning its surface area meets AWG standards to be considered 0 or 1/0 Gauge cable. Our KOL4 is bigger then AWG standard for 3 Gauge!

Wire Gauge Load Limit Table

Amperage							
300-350	0AWG	KOL1/0	KOL1/0	KOL1/0	KOL1/0	KOL1/0	KOL1/0
250-300	0AWG	0AWG	0AWG	0AWG	0AWG	KOL1/0	KOL1/0
200-250	0AWG	0AWG	0AWG	0AWG	0AWG	0AWG	0AWG
150-200	KOL4	KOL4	KOL4	0AWG	0AWG	0AWG	0AWG
125-150	4AWG	4AWG	4AWG	KOL4	KOL4	0AWG	0AWG
105-125	4AWG	4AWG	4AWG	4AWG	4AWG	KOL4	KOL4
85-105	8AWG	4AWG	4AWG	4AWG	4AWG	4AWG	4AWG
65-85	8AWG	8AWG	8AWG	4AWG	4AWG	4AWG	4AWG
50-65	8AWG	8AWG	8AWG	8AWG	8AWG	4AWG	4AWG
35-50	10AWG	10AWG	10AWG	8AWG	8AWG	8AWG	8AWG
20-35	10AWG	10AWG	10AWG	10AWG	10AWG	8AWG	8AWG
0-20	10AWG	10AWG	10AWG	10AWG	10AWG	10AWG	10AWG
	3Ft	3-6Ft	6-9Ft	9-12Ft	12-15Ft	15-18Ft	18-21Ft



What Gauge Cable Does My System Require?

Using the chart on the previous page, add up your system's total fuse rating. Each amplifier will have a "current draw" or "fuse rating" in its owners manual or a fuse on the amplifier itself. This is the TOTAL amount of current your system is capable of consuming. It is also equal to the fuse rating you should place on the main power cable at the battery.

What about Watt Output?

The amount of watts an Amp Kit/Power Cable can handle is really not a valid measure. Since so many companies lie about the amplifiers output, the best way is to check the amps fuse rating or current draw. Since companies like Pyramid claim 1200 watts out of an amp that only draws 40 amps (obvious BS) you have to take this with a grain of salt.

Watts = Volts x Amps

So your car operates between 13.8 – 14.4V DC and fuse ratings on amplifiers indicate max amperage value. 14.4V x 50A = 720Watts... *IF* your amp is 100% efficient.....No amp is 100% efficient....period

To Determine Amperage from watts:

System Total Watts / Voltage (14.4) = Amps (At 100% efficiency, which, again is not possible)

Now if you have an amp that "claims" 2000 watts with a 50A fuse, PLEASE understand, your amp is not capable of actually making anything more then 625 watts or so as on average amps are 70-85% efficient

Do I need to add a ground at the main battery?

When installing a 4 Gauge cable or larger as your main positive cable, you should upgrade your factory ground from battery to the chassis with the same gauge as your main positive cable. From the factory your vehicle at best uses 8 gauge for its main ground to the chassis. That becomes a limiting factor if you install 4 gauge power wire to your amp and a 4 gauge ground in the rear of the car. By NOT upgrading you still pass through the 8 gauge factory ground, thus defeating the purpose of the 4 gauge ground cable in the rear and the large positive wire you have just installed.

What to consider when installing multiple amps:

Often we get asked about distribution blocks that have one 4 gauge input and multiple 4 gauge outputs. There is a flaw to this approach, ONE 4 gauge wire can not support the capacity double its size. When installing multiple amps, refer to the wire gauge chart on the previous page. If you have a main 4 gauge cable 15 feet long connected to a distribution block that is 2 feet from your amplifiers, 8 Gauge cable can be run from the distribution block. Even though your amp may accept 4 gauge, at that point it is not required. The amplifier manufacture has provided that 4 gauge input IN CASE it is used as the sole amplifier in the system. At that point they recommend a single 4 Gauge to be connected directly to the amp as such that it will most like have a 17-20 distance from the power source.

When using our KND/KNF blocks, we recommend using 1/0 Gauge input if you are connecting 4 gauge to multiple amplifiers UNLESS the total system current draw is 120A or less.