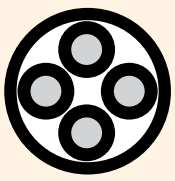
ONE Speaker Cable Guide

kordz®

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Speaker Cable Options				Rating	Jacket Colour		
Model	Configuration	Cross Section to scale	Spool Length metre-marked	LSZH	Purple	Yellow	Black
ONE-SP122	12AWG (65/30) 2 core OFC 7.5±0.2mm OD		152.5m 500ft	✓	✓	✓	✓
ONE-SP142	14AWG (82/33) 2 core OFC 7.5±0.2mm OD		152.5m 500ft	✓	✓	✓	✓
ONE-SP144	14AWG (82/33) 4 core OFC 8.8±0.2mm OD		152.5m 500ft	✓	✓	✓	✓
ONE-SP162	16AWG (65/34) 2 core OFC 6.0±0.2mm OD		305m 1000ft	✓	✓	✓	✓
ONE-SP164	16AWG (65/34) 4 core OFC 7.0±0.2mm OD		152.5m 500ft	✓	✓	✓	✓

Internal Conductor Colours		
Model	Pair A	Pair B
2 core	Black, Red	—
4 core	Black, Red	Green, White

✓ - Available

- All models in plastic spool box 340H x 265W x 335D (mm).
- 12 cartons per pallet layer, maximum 3 layers per pallet.

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Speaker Cable Reference

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Selected American Wire Gauge (AWG) Conductor Sizes					
Solid Conductor	**10AWG**	**12AWG**	**14AWG**	**16AWG**	**18AWG**
Cross-section (actual size)					
Diameter (mm)	2.588	2.053	1.628	1.291	1.024
Area (mm^2)	5.261	3.309	2.081	1.309	0.823

Formulae

$$d = 0.127mm \times 92^{\frac{36-AWG}{39}}$$

$$A = \pi \times \left(\frac{d}{2}\right)^2$$

For inches, substitute 0.127mm with 0.005in

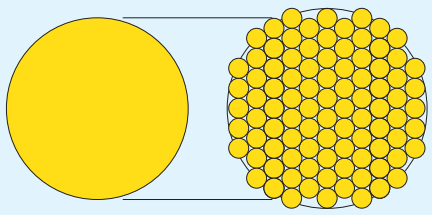
Stranded Cores vs. Solid Cores

Speaker cable is often labelled with solid core AWG sizes while actually being constructed with multiple smaller conductor strands to improve flexibility and handling. The combined strands have the same cross-sectional area of conductor material as the equivalent solid core.

Solid Core	Stranded Equivalent	Common Labelling	Area (mm^2)
12AWG	65 × 30AWG	12AWG 65/30	3.309
14AWG	82 × 33AWG	14AWG 82/33	2.081
16AWG	65 × 34AWG	16AWG 65/34	1.309

Real-World Measurements

Stranded diam. ≈ 105% solid diam.
Stranded area ≈ 110% solid area



ONE-SP Electrical Characteristics - Power loss by cable length

Cable Gauge	4Ω Speaker				8Ω Speaker				16Ω Speaker			
	10m 32ft	20m 65ft	40m 131ft	80m 262ft	10m 32ft	20m 65ft	40m 131ft	80m 262ft	10m 32ft	20m 65ft	40m 131ft	80m 262ft
16AWG	6%	12%	22%	35%	3%	6%	12%	22%	2%	3%	6%	12%
14AWG	4%	8%	15%	26%	2%	4%	8%	15%	1%	2%	4%	8%
12AWG	3%	5%	10%	18%	1%	3%	5%	10%	<1%	1%	3%	5%

Above figures are based on copper resistivity at 20°C (68°F). Resistivity and cable power loss both increase with temperature. For example, driving a 4Ω speaker over 80m of 16AWG cable loses 35% power (-1.9dB) at 20°C (68°F) and 39% (-2.1dB) at 75°C (167°F).

16AWG ≤ 13.7 Ω/km
14AWG ≤ 8.62 Ω/km
12AWG ≤ 5.64 Ω/km

Power loss % to dB conversion	5%	10%	15%	20%	25%	30%	35%	40%
	-0.2dB	-0.5dB	-0.7dB	-1.0dB	-1.2dB	-1.5dB	-1.9dB	-2.2dB

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