

# Speaker wire gauge chart

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This chart displays the max. recommended speaker wire length for each wire gauge depending on the speaker impedance (Ohms load).

Max. lengths are based on a wire power loss of 5% or less at maximum power to the speaker.

## Copper speaker wire chart<sup>1</sup>

Wire AWG	2Ω Speaker	4Ω Speaker	6Ω Speaker	8Ω Speaker	16Ω Speaker
24	2 ft (0.6 m)	4 ft (1.2 m)	6 ft (1.8 m)	8 ft (2.3 m)	15 ft (4.7 m)
22	4 ft (1.1 m)	7 ft (2.2 m)	11 ft (3.3 m)	14 ft (4.4 m)	29 ft (8.8 m)
20	6 ft (1.8 m)	12 ft (3.6 m)	18 ft (5.3 m)	23 ft (7.1 m)	47 ft (14.2 m)
18	9 ft (2.8 m)	18 ft (5.6 m)	28 ft (8.4 m)	37 ft (11.2 m)	73 ft (22.4 m)
16	12 ft (3.6 m)	23 ft (7.2 m)	35 ft (10.7 m)	47 ft (14.3 m)	94 ft (28.7 m)
14	20 ft (6.2 m)	40 ft (12.3 m)	61 ft (18.5 m)	81 ft (24.7 m)	162 ft (49.4 m)
12	31 ft (9.4 m)	62 ft (18.9 m)	93 ft (28.3 m)	124 ft (37.8 m)	248 ft (75.5 m)
10	48 ft (14.6 m)	96 ft (29.2 m)	144 ft (43.8 m)	191 ft (58.3 m)	383 ft (116.7 m)
8	72 ft (22 m)	144 ft (44 m)	216 ft (65.9 m)	288 ft (87.9 m)	577 ft (175.8 m)

## Copper clad aluminum (CCA) wire chart<sup>2</sup>

Wire AWG	2Ω Speaker	4Ω Speaker	6Ω Speaker	8Ω Speaker	16Ω Speaker
24	1 ft (0.4 m)	3 ft (0.9 m)	4 ft (1.3 m)	6 ft (1.7 m)	11 ft (3.4 m)
22	3 ft (0.8 m)	5 ft (1.6 m)	8 ft (2.4 m)	11 ft (3.2 m)	21 ft (6.4 m)
20	4 ft (1.3 m)	9 ft (2.6 m)	13 ft (3.9 m)	17 ft (5.2 m)	34 ft (10.4 m)
18	7 ft (2 m)	13 ft (4.1 m)	20 ft (6.1 m)	27 ft (8.2 m)	54 ft (16.3 m)
16	9 ft (2.6 m)	17 ft (5.2 m)	26 ft (7.8 m)	34 ft (10.5 m)	69 ft (20.9 m)
14	15 ft (4.5 m)	30 ft (9 m)	44 ft (13.5 m)	59 ft (18 m)	118 ft (36 m)
12	23 ft (6.9 m)	45 ft (13.8 m)	68 ft (20.7 m)	90 ft (27.6 m)	181 ft (55.1 m)
10	35 ft (10.6 m)	70 ft (21.3 m)	105 ft (31.9 m)	140 ft (42.6 m)	279 ft (85.2 m)
8	53 ft (16 m)	105 ft (32.1 m)	158 ft (48.1 m)	211 ft (64.2 m)	421 ft (128.4 m)

**TIP:** For lower power everyday use (50-60% of max. amp or stereo power), one size smaller wire gauge can be used.

<sup>1</sup>Based on stranded copper wire at normal temperature.

<sup>2</sup>Estimates made using lower conductivity factor for CCA wire.