

SC 610M horn speaker sound pressure level chart

When transmitting voice or music through a speaker it is necessary to transmit at a level that is higher than the ambient noise level. In the case of voice transmission it should be transmitted at a level 5 to 10dB higher than the noise level, background music 3 to 5dB higher and foreground noise 15 to 20dB higher.

As an index to express the intensity of sound from a speaker sound pressure level (dB) is generally used. The sound pressure level rises as the electrical input to the speaker increases and falls as the distance from the speaker increases.

The below chart shows the approx sound pressure level achieved at varying distances and electrical inputs (w)

Distance from speaker (m)		1	2	5	10	15	20	30	40	60	80
Electrical input (w)	1	110dB	104dB	96dB	90dB	86.5dB	84dB	80.5dB	78dB	74.4dB	70dB
	1.5	112.6dB	106.6dB	98.6dB	92.6dB	89.1dB	86.6dB	83.1dB	80.6dB	77dB	74.5dB
	3	114.8dB	108.8dB	100.8dB	94.8dB	91.3dB	88.8dB	85.3dB	82.8dB	79.2dB	76.7dB
	5	117dB	111dB	103dB	97dB	93.5dB	91dB	87.5dB	85dB	81.4dB	78.9dB
	6	117.8dB	111.8dB	103.8dB	97.8dB	94.3dB	91.8dB	88.3dB	85.8dB	82.2dB	79.7dB
	10	120dB	114dB	106dB	100dB	96.5dB	94dB	90.5dB	88dB	84.4dB	81.9dB