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Acoustic Power and Sound Pressure Levels of Typical Noise Sources[1]

Acoustic Power	Degree		Pressure Level[2]	Source
32 GW	Deafening		225 dB	12" Cannon @ 12ft in front and below
25 to 40 MW			195 dB	Saturn Rocket
100 kW			170 dB	Turbojet Engine with Afterburner
10 kW			160 dB	Turbojet Engine, 7000lb. thrust
1 kW			150 dB	4-Propeller Airliner
100 W			140 dB	Artillery Fire
10 W	Threshold of Pain		130 dB	Pneumatic Rock Drill
				?**130 dB causes immediate ear damage**
3 W			125 dB	Small Aircraft Engine
1.0 W			120 dB	Thunder
100 mW			110 dB	Close to Train
10 mW	Very Loud		100 dB	Home Lawn Mower
1 mW			90 dB	Symphony or a Band
				?**90 dB regularly can cause ear damage**
100 ?W	Loud		80 dB	Police Whistle
10 ?W			70 dB	Average Radio
1 ?W	Moderate		60 dB	Normal Conversational Voice
100 nW			50 dB	Quiet Stream
10 nW	Faint		40 dB	Quiet Conversation
1 nW			30 dB	Very soft whisper
100 pW	Very Faint		20 dB	Ticking of a Watch
10 pW	Threshold of Hearing		10 dB	
?1 pW			0 dB	Absolute Silence

[1]Space average sound pressure level at 10 meters = Pressure Level -28 dB
[2]Reference Level = 10^{-12} watts = 1 pW = 10^{-5}erg/s = 20 ?Pa = 0.00002 ?bar = 0.00002 dyne/cm^2

Conversion Table for Common Units of Sound Pressure

Units	Picowatts	erg/s	?Pa	?bar	dyne/cm^2
1 picowatt	1	1 X 10^{-5}	2 X10^{1}	2 X 10^{-4}	2 X 10^{-4}
1 erg/s	1 X10^{-7}	1	2 X 10^{2}	2 x 10^{-3}	2 x 10^{-3}
1 ?Pa	5 X 10^{-2}	5 X 10^{-6}	1	1 X 10^{-5}	1 X 10^{-5}
1 ?bar	5 x 10^{3}	5 X 10^{-2}	1 X 10^{-5}	1	1
1 dyne/cm^2	5 x 10^{3}	5 X 10^{-2}	1 X 10^{-5}	1	1

Sound Perception

Change in Sound Level	Perception
3 dB	Barely perceptible
5 dB	Clearly Perceptible
10 dB	Twice as loud