

Sound Pressure Chart

Lower the volume and listen for life

	dB SPL		AMPLIFIER POWER	EFFECT ON BODY	SOUND EXPOSURE
Sound becomes shock wave	190				
Rocket take off	180			Death At 200 dB from shockwave	The most common hearing problem is the ear loses the ability to hear high frequencies
	170			Vibration deep within body	
	160			Nausea, Sound felt in joints	Loud music now means no high notes in a few months or years
Jet engine close up	150	Peak rock amplifier Trumpet, snare drum		Choking, giddiness, Chest wall vibrates,	
Jet take off 25m	140	Singer screams into microphone		Pain threshold	Daily maximum permissible noise exposure per day before permanent damage occurs
Shotgun, artillery 100m	130	Very loud car radio Loudest human scream	700-40,000W	Throat and vocal chords vibrate	
Jack hammer	120	Cymbals, Rock amplifier	70-4,000W	Body feels low frequencies	4 minutes 8 minutes 15 minutes 30 minutes
Loud car horn, propeller plane		Very loud headphones			
Helicopter	110	Typical nightclub	7-400W		1 hours 2 hours 4 hours 8 hours
Power tools, unsilenced motorbike		Loud headphones			
	100	Trombone, Bagpipes Clarinet	700mW-40W		
Heavy truck 15m, lawn mower	90	Piano fortissimo Loud shout, Violin	70mW-4W		
Busy city street	80	Cello Acoustic guitar	7mW-400mW		
Vacuum cleaner, electric shaver	70	Noisy office Loud conversation	700µW-40mW		
Washing machine Light car traffic	60	Small orchestra, piano			
Refrigerator	50	Average office Quiet conversation			
	40	Quiet office			
Countryside at night	30	Very quiet lounge Whisper			
	20				
Recording studio	10				
	0	Threshold of hearing			

HEADPHONE OUTPUT

Headphone output is rated in dB/mW (SPL) sound output for 1mW power input. Many headphones can handle power levels 100 times greater than this.

TYPICAL HEADPHONE LOUDNESS

Open-air headphone: 95-110dB/mW
Bud earphone: 90-105dB/mW

Recommended maximum 90dB/mW is about 30-50% of the maximum volume setting