



Amherst Walkie Talkie Centre

CTCSS Radio Tone Frequencies and CTCSS Numbers Cross-Reference

CTCSS (Continuous Tone Controlled Squelch System) is a method of allowing different groups of radio users to use the same channel (frequency) without overhearing each other's messages.

It works by transmitting an audio tone along with every transmitted message, and then setting all the radios in a particular group so that they only respond to transmissions with the appropriate CTCSS tone set.

All other transmissions are ignored, so that the different groups are not disturbed by radio messages not intended for them.

They ARE all still using the same frequency though, so if two users even in different groups happen to transmit at exactly the same moment, their transmissions will interfere with each other.

On most "consumer" PMR446 walkie-talkie radios, the 38 CTCSS tones are referred to as numbers from 01-38. If CTCSS is off, this is sometimes referred to on some walkie-talkies as CTCSS code "00".

When programming professional radios, the CTCSS tones are usually referred to by the audio tone frequency in Hertz.

The table below shows the relationship between CTCSS codes (often incorrectly called "Sub Channels") and the actual audio tones in Hz.

CTCSS Code	Tone Frequency (Hz)	CTCSS Code	Tone Frequency (Hz)
1	67.0Hz	20	131.8 Hz
2	71.9 Hz	21	136.5 Hz
3	74.4 Hz	22	141.3 Hz
4	77.0 Hz	23	146.2 Hz
5	79.7 Hz	24	151.4 Hz
6	82.5 Hz	25	156.7 Hz
7	85.4 Hz	26	162.2 Hz
8	88.5 Hz	27	167.9 Hz
9	91.5 Hz	28	173.8 Hz
10	94.8 Hz	29	179.9 Hz
11	97.4 Hz	30	186.2 Hz
12	100.0 Hz	31	192.8 Hz
13	103.5 Hz	32	203.5 Hz
14	107.2 Hz	33	210.7 Hz
15	110.9 Hz	34	218.1 Hz
16	114.8 Hz	35	225.7 Hz
17	118.8 Hz	36	233.6 Hz
18	123.0 Hz	37	241.8 Hz
19	127.3 Hz	38	250.3 Hz