

## CTCSS (Continuous Tone Coded Squelch System)

CTCSS is a sub audible tone in the range of 67 to 254 Hz. The FM deviation level of CTCSS tones should be in the range of 500 to 800 Hz. These tones are transmitted with the voice audio at all times during the transmission. Any one or more of the 50 tones can be used to gain access to a repeater or for other purposes. 1, 2, 3 or up to all 50 CTCSS tones can be used to operate different functions in a repeater. You can even use CTCSS tones and Digitally Coded Squelch (DCS) codes on the same channel.

The CTCSS encode deviation level can be adjusted up and down remotely over the air or telephone interconnect. The received or incoming CTCSS tones may be passed to the repeater transmitter, or filtered (removed with a high pass filter, with no tone going out to the repeater transmitter). Under normal conditions, you will filter out incoming tones and re-encoding a new CTCSS tone either on the same or a selected different frequency.

The following is a table of standard and non-standard CTCSS tones.

67.0 Hz	69.3 Hz	71.9 Hz	74.4 Hz	77.0 Hz
79.7 Hz	82.5 Hz	85.4 Hz	88.5 Hz	91.5 Hz
94.8 Hz	97.4 Hz	100.0 Hz	103.5 Hz	107.2 Hz
110.9 Hz	114.8 Hz	118.8 Hz	123.0 Hz	127.3 Hz
131.8 Hz	136.5 Hz	141.3 Hz	146.2 Hz	151.4 Hz
156.7 Hz	159.8 Hz	162.2 Hz	165.5 Hz	167.9 Hz
171.3 Hz	173.8 Hz	177.3 Hz	179.9 Hz	183.5 Hz
186.2 Hz	189.9 Hz	192.8 Hz	196.6 Hz	199.5 Hz
203.5 Hz	206.5 Hz	210.7 Hz	218.1 Hz	225.7 Hz
229.1 Hz	233.6 Hz	241.8 Hz	250.3 Hz	254.1 Hz

### Motorola CTCSS Code Equivalents

<u>CTCSS - Motorola</u>	<u>CTCSS - Motorola</u>	<u>CTCSS - Motorola</u>	<u>CTCSS - Motorola</u>
69.3 - WZ	97.4 - ZB	136.5 - 4Z	192.8 - 7A
71.9 - XA	100.0 - 1Z	141.3 - 4A	203.5 - M1
74.4 - WA	103.5 - 1A	146.2 - 4B	210.7 - M2
77.0 - XB	107.2 - 1B	151.4 - 5Z	218.1 - M3
79.7 - WB	110.9 - 2Z	156.7 - 5A	225.7 - M4
82.5 - YZ	114.8 - 2A	162.2 - 5B	229.1 - 9Z
85.4 - YA	118.8 - 2B	167.9 - 6Z	233.6 - M5
88.5 - YB	123.0 - 3Z	173.8 - 6A	241.8 - M6
91.5 - ZZ	127.3 - 3A	179.9 - 6B	250.3 - M7
94.8 - ZA	131.8 - 3B	186.2 - 7Z	254.1 - 0Z