



**LIGHTHOUSE
COMMUNICATIONS**

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Do you know about radios?

Two Way Radios are electronic devices that send and receive signals. The AM/FM radio in your car or at home is a one way radio. These radios can only receive a signal. You can listen to your AM/FM radio but you can't talk back to the radio station. Two-way radios let you listen and talk. Radios (this could be a popular radio station or a hand held two way radio) broadcast on a specific frequency. A popular radio station is known by its frequency; Talk **790 AM** or Sunny **95.5 FM**. **790** and **95.5** are these stations' frequencies (measured in kilo hertz for AM radio or mega hertz for FM radio.) Likewise every two way radio broadcasts on a specific frequency broadcast in the Two Way Radios VHF range (very high frequency) or UHF range (ultra high frequency). The difference between VHF and UHF is like the difference between AM and FM for public radio stations. The second factor in broadcasting is the power of the signal measured in "watts." A commercial radio station might broadcast at 5000, 10000 or 50000 watts. The more wattage or power the further the signal will travel. Hand held two-way radios usually broadcast at 1-5 watts and mobile radios (the kind you might find in a fleet of delivery trucks) broadcast at up to 50 watts. The third factor in broadcasting is those things that might block a radio signal. If a radio signal is block by buildings, walls, trees or mountains the signal won't reach the receiving radio. To solve this problem commercial radio stations broadcast from towers. This way the signal is beamed out and down to people wanting to listen to the station. It doesn't take much power if a receiving radio doesn't have anything between it and the sending radio tower or antenna. For example the radios that the astronauts used on the moon broadcast with less than 5 watts because there is nothing between the moon and earth to block the signal. We usually sell UHF radios because the signal that is produced has better ability to travel around objects like trees and buildings. We sell VHF radios when they are going to be used in an airplane, on a boat, or outside where there is little between the sender and the receiver. Under these conditions VHF travels further than UHF. Because some facilities are quite large and have a limited Two Way Radios range special amplifiers (called repeaters) can be used to extend range. Generally speaking have a range o Two Way Radios f a couple of miles. The use of a repeater can extend the range or provide better reception in areas with a lot of obstacles. Two Way Radios can have multiple channels just like an AM or a FM radio can be tuned to different stations. The two-way radios we sell might have anywhere from 1 to 16 or as many as 256 different channels. Each channel has a different frequency so people listening and talking on channel 1 won't hear people talking on channel 2 or one of the other channels. This is particularly important to our customers that want a group of employees to be able to talk to each other without interfering with other groups of employees. For example in a production location people can use one channel, the crew can use another channel and the coordinator can use a third channel without everyone hearing everything that is being transmitted. **Would you like some help** in solving your communications problems? Would like to learn more about how Two Way Radios can help your company, school or hospital become more productive and safe through effective communications?

Call 1-818-571-9738

www.CommunicationsEquipment.net