

Useful Information about 2 way Radios

What is a two-way radio?

A basic two-way radio is comprised of a receiver to pick up signals and a transmitter to send signals.

How does it work?

Radio systems can be composed of portable handheld style radios, mobile or truck mounted radios, and/or a base station located at your office/home.

Will it save me money?

Most Definitely! Two-way radios can save any company money, especially if you are using cell phones as your present form of communications. While the initial costs are higher than cellular or ESMR systems, the payback is realized in the lower flat-rate airtime commonly found in wide area two-way radio systems. Two-way radios can eliminate wasted employee time and fuel/vehicle expenses. They can increase employees' billable hours and raise revenues.

What kind of range can I expect?

Systems can range from in-building coverage only to wide area coverage trunking systems capable of reaching multiple states. While direct unit to unit range is dependent on local topography, portable units can expect 1-2 mile direct range, and mobiles can expect 10-25 miles direct. The addition of a base station will enable increased mobile/portable range to the base station depending on location and antenna height.

Q: How should I charge my portable radio?

All portables require a battery to supply power to the unit. If the batteries are charged correctly, the units will provide a longer period of operation. Plus the life of the battery will be increased. It is always best to turn off the radio prior to charging and, when possible, drain the battery prior to charge. Never transmit when the portable is in the charger. Charge the battery for a full cycle, typically meaning a normal charge time of 10 hours for standard charger and one hour for rapid chargers. Never leave the battery in a charger for extended periods.

What is the difference between UHF and VHF?

Due to the characteristics of radio waves, UHF radios generally offer better building penetration and therefore are ideally suited for indoors as well as for areas of high building density (cities). VHF radios are better suited for areas where there is vegetation, where the signal can pass through objects. For this reason VHF radios are ideal for outdoor use. Where the application requires a combination of indoor and outdoor use, a UHF radio is preferable. Your sales consultant will know by your specific application which radio will best fit your needs.

Q: What are the benefits of a two-way radio versus a cell phone?

A: Cost and dispatch capabilities. Push a single button and be connected to one or one hundred individuals. Two-way radios are easy to use with a push-to-talk feature, which enables the user to communicate instantly with anyone on the network. They are designed to be utilized in extreme conditions and offer rugged features, unlike delicate cellular units. Two-way also offers a low, flat monthly fee with unlimited talk time and no per minute airtime cost.

Q: What is the talk range of the radio signals?

A: Two-way radio coverage range is approximately 1-mile outdoors. Indoor coverage varies based on construction of the building where the equipment is being used. Large convention centers are normally covered within a given hall. In hotel applications, at least multiple floors are covered.

What is a Channel? Do I need a multi-channel radio?

A multi-channel radio allows the user to store multiple frequency/code combinations on the radio which enables you to switch between workgroups with ease. Typically, a manager will use a multi-channel radio while the employees will use a single-channel radio.

How much power/wattage do I need?

Power/Wattage is a major factor in achieving the range and coverage of a particular structure or region. The higher the wattage, the better the coverage and the crisper and clearer the communications will be.

Why you need a Federal Communications Committee (FCC) license?

The FCC requires that users, who communicate with certain radios which operate on designated radio frequencies, be licensed.

How do I apply for an FCC license?

You can download the application forms directly from the FCC website at: www.fcc.gov. You can also request them through the FCC forms hotline at 1-800-418-FORM.

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