

Useful Information about GMRS Radios

What is GMRS (General Mobile Radio Service)?

GMRS is a licensed radio service. GMRS consists of 16 UHF channels on FM, plus 7 channels that are shared with FRS. 462.675 is the unofficial channel for emergencies and assistance. GMRS radios are allowed to transmit on the channels they share with FRS at 5 watts, ten times the power of FRS radios.

The maximum allowable power for a GMRS radio is 50 watts. The GMRS channels which are shared with FRS are limited to 5 watts of power.

The use of repeaters is allowed on GMRS. Most GMRS repeaters use CTCSS (Controls Tone Coded Squelch).

Where did GMRS come from?

GMRS spectrum was once the old Class A Citizens Radio Service. There are folks still using GMRS that have been using this radio spectrum for many years.

What is the Range of a GMRS Two-Way radio?

A GMRS radio has a range of up to 5 miles or more. The range is relative to the obstacles around you. On an open field, or water the range is greater. Urban development may reduce the range to 2 miles or less. If you are in a tall building the range is about 20 floors. This is very common with two-way radios.

I am not getting up to a 5 Mile range on the First 7 Channels.

The First 7 channels are shared FRS channels. The Last 8 Channels are exclusive GMRS channels. You will often have more users on the FRS channels causing interference and reducing your range. The range between your GMRS radio and a FRS radio will be set by the range of the less powerful FRS radio

Will different models of radios (from the same or different manufacturers) work together?

Yes! All you have to do is match frequencies and coded squelch settings (if equipped) of all the radios. That information is contained in the user's manual.

How come I can't get a 5 Mile Range?

Range Varies on Terrain, condition, and battery power. In an open unobstructed area (open field) the range reaches up to 5 miles.

How long should rechargeable batteries last in my radio after being fully charged?

Rechargeable batteries should perform for approximately 15 hours if the radio use is 5% of the time transmitting, 5% receiving and 90% in standby

Do I need a license to operate GMRS radios?

YES. The FCC grants five-year renewable licenses for GMRS Systems. The individual licensee is responsible for the proper operations of the licensed GMRS system at all times.

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.

What Kinds of Stations May Operate in the GMRS?

As implied by the name, the General Mobile Radio Service is intended *primarily* for communications by *mobile* stations or between mobile stations and *base* stations.

A **repeater station** is a special kind of base station that receives signals on one frequency (in the 467 MHz band), and automatically (and usually, nearly simultaneously) retransmits that signal on another frequency (in the 462 MHz band).

A conventional base station can also be set up as a repeater by receiving a signal in the 462 MHz band, and then retransmitting that same signal after a slight delay on the same frequency. This requires attaching an inexpensive "store-and-forward" device to the base station, but also requires using another device to shut the station off if it is operated from a remote location.

Repeater stations are often located on tall buildings or towers, or on hilltops, in order to extend the range for mobile communications.