

Keeping in Touch Using Personal Radio Services

FCC Consumer Facts

Background

Have you ever been in a place where you can't use your wireless telephone—like skiing at higher altitudes, camping in a remote area, or even shopping at the mall? There are other wireless services that allow you to keep in touch—personal radio services.

A personal radio service is a short-range, low power radio transmission using a device or devices that operate much like walkie-talkies. Personal radio services include one and two-way voice services, data transmission, and transmissions that operate equipment by remote control. The most popular types of personal radio services are Citizens Band Radio Service (CB), Family Radio Service (FRS), General Mobile Radio Service (GMRS), Low Power Radio Service (LPRS), and Multi-Use Radio Service (MURS). Of these types of personal radio services, only GMRS requires an FCC license to operate.

Personal radio services offer several benefits over other services. Devices generally are not very expensive, usually can be hand-held, and work without the need for transmission towers or other equipment. Some types of personal radio services, generally those that are authorized in the very high frequency (VHF) and ultra high frequency (UHF) portions of the radio spectrum, do not suffer from the static, noise, and fading that you may encounter using CB service or walkie-talkies. In addition, using a personal radio service requires no service contract or monthly fee.

Here's more information about each of the most popular types of personal radio services.

Citizens Band Radio Service (CB)

- CB service allows private, two-way radio communications for personal or business use. Communications (or attempts to communicate) with stations over 250 km (155.3 miles) away are prohibited. The maximum authorized power levels vary depending on whether the station is transmitting a single side band (SSB) or an AM signal. SSB transmissions are authorized up to 12 watts Peak Envelope Power (PEP), while AM transmissions are permitted up to four watts carrier power.
- CB radios, used most frequently in vehicles and by truckers, can be purchased for between \$70 and \$200.

Citizens Band Radio Service (CB) (cont'd.)

- You must use an FCC-certified CB unit in the United States. FCC-certified CB units have an FCC-certified label placed by the manufacturer.
- There is no minimum age requirement to operate a CB radio.
- CB service operates on 40 shared channels on a "take-turns" basis, meaning no CB channel is assigned to any specific individual or organization. Users must never talk with another station for more than 5 minutes continuously, and must wait at least one minute before starting another communication.
- You may not raise the power output of your CB unit, attach any type of power amplifier, or modify the unit internally.

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Family Radio Service (FRS)

- FRS allows two-way voice communications over very short distances, generally less than one-half mile. It is generally used by families or small groups to communicate while on group outings when group members are fairly close together, but can also be used in business-related settings.
- An FRS unit looks and works much like a walkie-talkie. Prices for FRS units vary depending on features and quality.
- If you have a dual-use, FRS-General Mobile Radio Service (GMRS) unit, you may legally use only the FRS channels unless you have a GMRS license. The label on the unit or the operations manual should indicate the service the unit is certified for. FRS-only units transmit at lower power levels and have antennas that are integrated with the unit; GMRS units transmit at higher power levels and may have detachable antennas.
- You can operate your FRS unit anywhere in the U.S. and its possessions. Before using FRS in other countries such as Canada and Mexico, check to see if that country allows operation of FRS units. There is no minimum age requirement for operating an FRS unit.

General Mobile Radio Service (GMRS)

- GMRS is a land-mobile radio service available for short-distance, two-way communications to facilitate the activities of an adult (18 years or older) and his or her immediate family members, including a spouse, children, parents, grandparents, aunts, uncles, nephews, nieces and in-laws.
- A GMRS system may legally be operated only with a license granted by the FCC. The individual licensee is responsible for the proper operation of the GMRS system.

General Mobile Radio Service (GMRS) (cont'd.)

- A GMRS system is made up of station operators and a mobile station consisting of one or more mobile units. It may also include one or more land stations. Some land stations operate as repeaters, thereby extending the range of GMRS mobile units.
- New GMRS licenses are granted only to individuals, but GMRS licenses granted to non-individuals (such as businesses) before July 31, 1987, can be renewed if certain conditions are met. You can apply for a GMRS license on-line at wireless.fcc.gov/uls/, or by filing FCC Form 605, available at wireless.fcc.gov/index.htm?job=all_wireless_forms. The FCC sets license filing fees annually, and current filing fees, now \$85, can be found at wireless.fcc.gov/feesforms/feeguide/WTB_Fee_Filing_Guide.pdf. Licenses are granted for five years.

Low Power Radio Service (LPRS)

- LPRS is a private, one-way short-distance communication service that allows stations to transmit voice data or signals for auditory assistance to people with disabilities, people who require language translation, and certain individuals in educational settings. LPRS also allows stations to transmit voice, data, or tracking signals for health care-related communications and certain law enforcement activities. Two-way communications are prohibited. LPRS can also be used for network control communications in the Automated Marine Telecommunications System (AMTS).
- LPRS transmitters can be operated anywhere in the United States. There is no minimum age requirement to operate an LPRS transmitter.

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Multi-Use Radio Service (MURS)

- MURS is a private, two-way short-distance voice or data radio communications service used for personal or business activities. The service operates on five Very High Frequency (VHF) channels, originally set aside for business use, but subsequently made available for personal use.
- MURS users must cooperate in using the five channels to reduce interference to other users. No user has priority over any other user, but all users must yield to emergency communications. A MURS station may not operate as a repeater station, including store-and-forward packet radio operation, or a signal booster.
- Maximum allowable transmitter output power for a MURS unit is two watts. Transmission range between two hand-held units varies depending on the unit's antenna height, terrain, and weather.

Unlicensed Radio Operation

Be aware that if you operate a radio transmitter that requires a license, or use a radio that is authorized for use only in a specific service, in another service, you may be fined or imprisoned, and/or the equipment may be confiscated.

For More Information

For more information about personal radio service, visit the FCC's Wireless Telecommunications Bureau Web site at wireless.fcc.gov/services/index.htm?job=service_home&id=personal_radio. For information about other communications issues, visit the FCC's Consumer & Governmental Affairs Bureau Web site at www.fcc.gov/cgb, or contact the FCC's Consumer Center by e-mailing fccinfo@fcc.gov; calling 1-888-CALL-FCC (1-888-225-5322) voice or 1-888-TELL-FCC (1-888-835-5322) TTY; faxing 1-866-418-0232; or writing to:

Federal Communications Commission
Consumer & Governmental Affairs Bureau
Consumer Inquiries and Complaints Division
445 12th Street, SW
Washington, D.C. 20554.

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