

Useful Information about FRS

What is FRS (Family Radio Service)?

FRS is an unlicensed service. FRS consists of 14 UHF channels on PM. FRS channel 1 is unofficially used as the common call channel. It shares channels 1 through 7 with GMRS, and many FRS radios are also GMRS radios.

The maximum allowable power for a FRS radio is .5 watts.

FRS usage

FRS is mainly utilized for very short range two radio service for recreational activities. FRS is good choice for casual radio users who are not ready to step up and get an FCC license for GMRS.

Do I need to purchase a license from the FCC?

No! The FRS (Family Radio Service) radios do not require you to purchase a license.

Do I get charged for airtime?

No! There are NO charges for using 2-way radios. You can use them as long as you like, or as long as the batteries last.

FRS frequencies:

Channel	Frequency in MHz	GMRS Shared?
1	462.5625	Yes
2	462.5875	Yes
3	462.6125	Yes
4	462.6375	Yes
5	462.6625	Yes
6	462.6875	Yes
7	462.7125	Yes
8	467.5625	No
9	467.5875	No
10	467.6125	No

11	467.6375	No
12	467.6625	No
13	467.6875	No
14	467.7125	No

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.

Which FRS channels may I use?

You may use any of the 14 CB channels on a "take turns" basis with other users that may be operating in your immediate area. No FRS channel is assigned to any specific individual or organization.

What are Sub-Codes/privacy codes? (CTCSS)

Some models of Cobra FRS radios use a feature called CTCSS, which stands for "Continuous Tone Controlled Squelch System". Cobra calls this feature "subcodes" or "Privacy Codes".

Technically, sub codes are not extra channels. It is a feature that allows sharing a channel with other people, without any annoying interference. Most Cobra models offer 38 subcodes on each main channel. Here's how it works:

- ? Each sub code represents a special tone.
- ? When you transmit on a subcode, the special tone is also transmitted (you cannot hear the tone).
- ? Your radio will only receive messages from people using the same tone (the same subcode).

In essence, subcodes allow you to share a channel with other people, without having to listen to their transmissions. You will only hear messages from the people in your group.

Using a subcode of 00 means that subcodes are turned off. With subcodes turned off, you will hear all transmissions on that channel.

It is important to note that CTCSS does not really provide any measure of privacy -- all it does is limit the number of signals your radio will allow you to hear. Your transmission can be received by any other radio on the same channel.

What is the range of an FRS radio?

1. Range is specified as UP TO 2 miles, which will occur only under ideal conditions. Ideal conditions are:
 - Fresh batteries.
 - Flat, open terrain (no hills, trees, buildings, or tall vegetation between radios)
 - Both radios are outside (not indoors).
2. These conditions will reduce the operating range:
 - The batteries are wearing-out.
 - There are hills, trees, or buildings between radios.
 - One or both radios are inside a building.
 - One or both radios are inside a car.

The amount that your range is reduced will vary depending on the combination and severity of the above factors.

GUIDELINES ON RANGE

Following are approximate numbers for typical range under various conditions.

Remember, these are average values. Actual range will depend on the operating conditions (for instance a neighborhood with tall apartment buildings will have shorter range than a neighborhood of single-story homes).

OPERATING CONDITIONS	APPROX. RANGE
Outside, clear flat terrain	1.5 - 2 miles
Suburban Neighborhoods (low population density)	1 - 1.5 miles
Urban Areas(higher population, more/taller buildings)	1/2 - 1 mile
Inside buildings or malls	1/2 mile or 5 floors
Between buildings or houses	1/8 - 1/2 mile
Woodlands, moderate vegetation	1 - 1.5 miles
Woodlands, thick vegetation	1/2 - 1 mile