

RADIO COMMUNICATIONS DURING RUNS

BACKGROUND

Car to car communication during a run is extremely helpful. Communication between the lead car and sweep(s) can be crucial, but also great for any driver to just listen and stay connected. While cell phones offer some means of communication, service is often not available on twisty mountain canyon roads. For years, CB radios have been the solution to this problem and the CB antenna was easily integrated into the existing radio antennas for NA, NB, and NC models. Integrating the CB antenna into the existing ND antenna has proved to be a very difficult challenge. Most active Miata clubs and overland drivers use the more modern GMRS radio. GMRS radios are plentiful and work better technically and can be operated at higher transmit power levels. SOCALM uses GMRS radios during every run.

If you are interested in further info, here are a couple of other clubs' discussion of this topic.

[Sahuaro Miata Club \(Phoenix\) GMRS Discussion](#)

[Miata.net discussion from 2016](#)

And a more comprehensive discussion on this overland blog page.

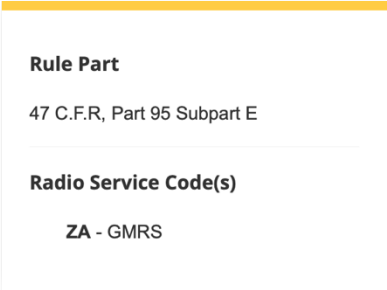
[Ordealist Overland Driving – GMRS Radio Basics](#)



GMRS RADIO LICENSING

General Mobile Radio Service (GMRS) is a licensed radio service that uses channels around 462 MHz and 467 MHz. GMRS channels are generally used for short-distance, two-way voice communications using hand-held radios, mobile radios and repeater systems. The GMRS radio technically requires a license from the Federal Communications Commission. There is no test required to get a license. The license costs \$35 for 10 years.

- 1) To begin the licensing process, you will need an FRN (FCC Registration Number) [Setup account and receive FCC Registration Number](#)
- 2) After you have the FRN, apply for the GMRS license. Be sure to select the GMRS license type which is code ZA and will be at the bottom of the list. [FCC Universal License System](#)
- 3) Be patient, and continue with the FCC site workflow as you transition to the Commission Registration System (CORES.) The front page of the CORES site will have options to select FRN Management and Bill Pay which will lead to a second page will be given an option of FRN Financial which will finally bring you to a payment page.



GMRS RADIO OPTIONS

For the radios themselves, there are plenty of choices. Two choices listed below are used by SOCALM members.

- 1) The simplest turnkey of the choices is (about \$100):
[Midland MicroMobile 5 Watt GMRS – Amazon Link](#)
- 2) A handheld solution is (about \$50) and includes accessories:
[BaoFeng UV-82 Radio – Amazon Link](#)



CHANNEL PROGRAMMING

The radios usually come with preassigned channels and do not need to be programmed. While standard GMRS channels are pre-defined, the default channel mapping may not match between different radio models and brands. And some radios do not ship with channels preconfigured. The BaoFeng model can be easily reprogrammed using CHRIP.

[CHRIP Programming Utility](#)

Here is a CSV file that defines the channel setup that many SOCALM members use in their BaoFeng UV-82.

[SOCALM GMRS Channel Programming List File Download](#)

Follow the CHRIP instructions in the link above and your radio manual instructions for programming procedure. Or ask for help from a SOCALM member at an upcoming social event.