FAMILY RADIO · STEP-BY-STEP GUIDE

Setting Up Your GMRS Radio and Using a Repeater

From a new radio in the box to your first call through the Nashville repeater, with what to say at every step.

WRITE YOUR GMRS CALL SIGN HERE

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1. Your license

Item	Details
Call sign	Issued by the FCC, for example WABC123 (four letters and three numbers). Write yours on the cover.
Service	GMRS (General Mobile Radio Service), FCC radio service code ZA
Who may use it	You and your immediate family: spouse, children (grown ones too), grandchildren, parents, siblings, in-laws and more. Everyone uses the same call sign.
Term	10 years from the grant date; renew online at the FCC

Saying it on the air: your call sign as plain letters, or phonetically: WABC123 would be "Whiskey Alfa Bravo Charlie One Two Three." Family members add their name if they like: "WABC123, this is Mary."

2. Know your BaoFeng UV-5G Plus

The UV-5G Plus is locked to GMRS, so it can't transmit anywhere it isn't allowed. It holds 22 regular GMRS channels, 8 GMRS repeater channels, 10 NOAA weather channels and many more memory slots you can program yourself.

Key or control	What it does
Top knob	On/off and volume
PTT (big side button)	Hold to talk, release to listen
SK1 (side, upper)	Press: FM broadcast radio on/off. Hold: emergency alarm
SK2 (side, lower)	Press: flashlight. **Hold: monitor** (opens squelch to hear weak signals)
VFO/MR	Switches between **channel mode** (channel number shown) and **frequency mode** ("VFO" shown)
A/B	Switches between the top (A) and bottom (B) lines of the display
MENU	Opens the menu; also confirms (saves) a choice
▲ / ▼	Change channel or frequency; inside the menu, scroll
EXIT	Backs out of the menu without saving
*** (hold 2 sec)**	**Keypad lock** on/off. If the keys won't respond, look for a key symbol on screen
0 (hold)	NOAA weather radio
# (hold)	Scan channels

The menu items you'll use

Shortcut: press **MENU**, type the number, then press **MENU** again to open that item. Scroll with ▲/▼, press **MENU** to save, **EXIT** to leave.

No.	Name	Use
2	TXP	Transmit power: HIGH (about 5 W), MIDDLE, LOW (0.5 W)
10	R-CTCS	Receive tone, so you only hear the repeater (set 141.3)
12	T-CTCS	**Transmit tone, the one the repeater needs** (set 141.3)
28	SFT-D	Offset direction: OFF, + or − (GMRS repeaters use +)
29	OFFSET	Offset amount (GMRS repeaters use 5.000)
30	MEMCH	Save the current settings to a memory channel
31	DELCH	Delete a memory channel

Menu numbers are from the BaoFeng UV-5G Plus user manual (2023). If your screen shows a different name at a number, go by the name.

2b. Getting the radio ready

1. **Charge the battery fully**
   It ships uncharged. Charge with the radio **off** using the USB-C cable; the light turns green when full (about 4 hours from empty).

2. **Screw on the long antenna**
   Finger-tight and fully seated; a loose antenna is a common cause of repeater trouble. Never transmit without an antenna.

3. **Turn it on and set the volume**
   Turn the top knob clockwise past the click.

4. **Make sure you're in channel mode**
   If the display shows "VFO", press **VFO/MR** once.

5. **Set power to High**
   MENU, 2, MENU, choose **HIGH**, press **MENU**, then **EXIT**.

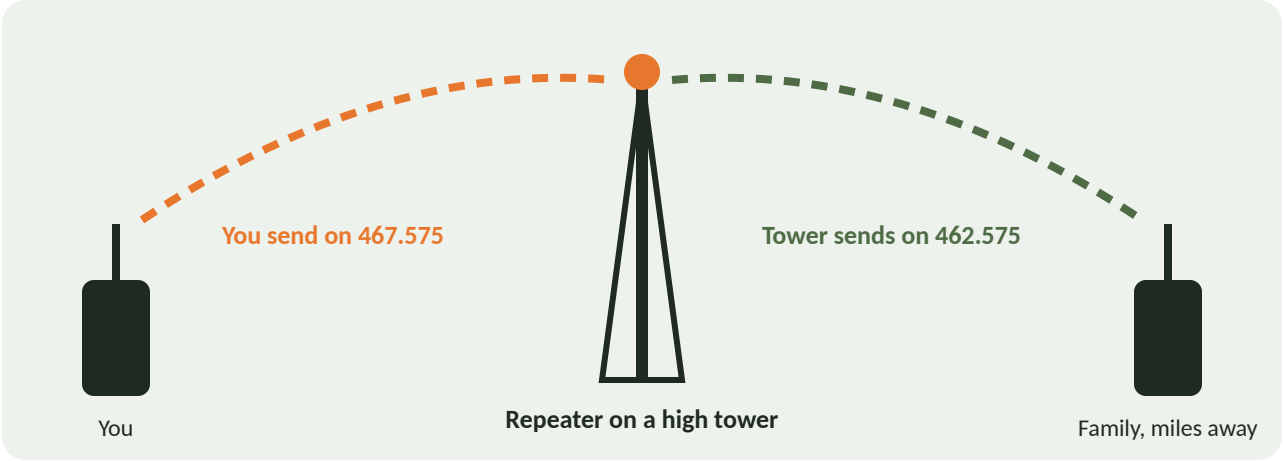
6. **Turn on the keypad beep and backlight if you like**
   Menu 8 (BEEP) and menu 6 (ABR) make it easier to see what you pressed.

Your license on the air

The radio does not send your call sign by itself. **You** say your call sign at the end of each conversation and every 15 minutes.

3. How a repeater works

A repeater is a radio on a tall tower. It **hears** your small handheld on one frequency and instantly **re-sends** what you said on another frequency, with more power and from much higher up. That can turn a 2-mile handheld into a 20-to-50-mile radio.



The two things a repeater needs from you

The right channel
A *repeater channel* listens on 462.575 and sends on 467.575, a 5 MHz split. On GMRS radios these are the repeater ("RPT") channels, not the ordinary channels 1 to 22.

The right tone
A quiet tone (CTCSS) rides along with your voice. The repeater only opens for its own tone, so other users on the same frequency don't set it off.

Your repeater: Nashville 575 (Ch. 16), call sign WQZI220, on Love Circle. **Output 462.575 MHz · input 467.575 MHz · tone 141.3 Hz in and out.** Listed as an **open** repeater on myGMRS.com, so no access request is needed.

Repeater listings can change. Check myGMRS.com before relying on it.

4. Setting the radio for the Nashville repeater

There are three ways. **Way A** is quickest. **Way C, CHIRP from the computer** (section 5), is the most reliable and lets you name the channel "NASH575."

Way A: use the built-in repeater channel

1. **Find the repeater channel for 462.575**
   In channel mode, step through the channels with ▲/▼ until the screen shows **462.575** with a "+" (the repeater shift). On BaoFeng GMRS radios the 8 repeater channels usually come right after the 22 regular ones, so 462.575 repeater is **usually channel 24**. (myGMRS lists the repeater as "Ch. 16", the standard GMRS number for 462.575; your radio's own number may differ.)
2. **Set the transmit tone**
   MENU, 1, 2, MENU (T-CTCS). Scroll to **141.3**, press **MENU**.
3. **Set the receive tone**
   MENU, 1, 0, MENU (R-CTCS). Scroll to **141.3**, press **MENU**, then **EXIT**.
4. **Check it stuck**
   A small "CT" should appear on the display. Change channel and come back; if "CT" is gone, the radio won't save tones on preset channels; use Way B or C.

Write it down: my repeater channel number: _____ tone **141.3** power **High**

Way B: build your own repeater channel from the keypad

1. **Go to frequency mode**
   Press **VFO/MR** until "VFO" shows, and press **A/B** so the top line (A) is selected.
2. **Type the frequency**
   Key in **462575**.
3. **Set the shift**
   MENU, 2, 8, MENU → choose **+** → MENU. Then **MENU, 2, 9, MENU** → enter **05000** (5.000 MHz) → MENU.
4. **Set both tones**
   Menu **12** (T-CTCS) and menu **10** (R-CTCS) to **141.3**.
5. **Save it**
   MENU, 3, 0, MENU → choose an empty channel, such as **031** → MENU.
6. **Back to channel mode**
   Press **VFO/MR** and go to channel 31.

5. Programming with CHIRP

CHIRP is free Windows software that reads the radio's channel list into a spreadsheet you can edit and send back. You'll need the BaoFeng programming cable (USB on one end, a two-pin K-plug on the other).

One-time setup

1. **Install the cable driver**
   Most BaoFeng cables use a **CH340/CH341** chip. Windows 10/11 usually installs the driver automatically when you plug the cable in. If not, get the CH341 driver from the chip maker, **WCH** (wch-ic.com), not from a random download site.

2. **Find the cable's COM port**
   Plug the cable into the laptop. Right-click Start → **Device Manager** → **Ports (COM & LPT)**. Note the number, for example **COM3**.

3. **Install CHIRP-next**
   Download the newest Windows installer from **chirpmyradio.com** (Downloads → CHIRP-next). Use a recent build; support for this radio was added in March 2024.

Read the radio

1. **Connect**
   Radio **off**. Push the cable plug **firmly all the way** into the radio's side jack; the deep jack on this radio often stops the plug short. Turn the radio on, volume about halfway.

2. **Download from Radio**
   In CHIRP: **Radio → Download from Radio**. Port: your COM number. Vendor: **Baofeng**. Model: **GM-5RH**. (CHIRP's driver for the UV-5G Plus is listed under the GM-5RH, which is the same radio inside. If your CHIRP lists "UV-5G Plus", choose that.) Click OK.

3. **Save a backup right away**
   File → Save As → "UV-5G Plus original.img". If anything goes wrong later, you can upload this to put the radio back exactly as it was.

If the download fails: check the COM port; press the plug in harder and hold it there during the transfer; make sure the radio is on and not transmitting; try another USB port; unplug and replug the cable, then try again.

5b. Adding the Nashville repeater in CHIRP

Find an empty row after the preset channels (for example row 31) and fill it in like this. Click a cell to change it; drop-down cells give a list.

CHIRP column	Enter
Frequency	462.575000
Name	NASH575 (up to about 6–8 letters show on screen)
Tone Mode	**TSQL** (tone on both transmit and receive)
Tone / ToneSql	**141.3 / 141.3**
Duplex	**+**
Offset	**5.000000**
Mode	FM (wide)
Power	High

You can also add the tone to the radio's built-in 462.575 repeater row instead: set Tone Mode to TSQL and both tones to 141.3, and leave Duplex/Offset as they are.

Send it to the radio

1. **Save the file**
   File → Save As → "family radios.img".
2. **Upload to Radio**
   Radio → Upload to Radio, same port and model. Keep the plug pressed in until it says it's finished.
3. **Check on the radio**
   Turn it off and on, go to channel 31: you should see **NASH575** with "+" and "CT".
4. **Program the rest of the family's radios**
   Upload the same "family radios" file to each radio, so channel 31 is the Nashville repeater on every one.

Good extras to add while you're there

Family simplex channels (20 and 22) named FAM1 and FAM2; Arkansas repeaters near the ranch when you find them on myGMRS.com; the NOAA weather channel for your area.

BaoFeng also offers its own free programming software (CPS) on baofengradio.com. CHIRP is easier and works for many brands.

6. Making your first call

1. **Listen first**
   Wait 10 to 20 seconds. If someone is talking, let them finish.
2. **Press and hold PTT, wait one second**
   The repeater needs a moment to switch on, or your first word is lost.
3. **Speak clearly**
   Hold the radio a few inches from your mouth, across your mouth rather than straight in front.
4. **Release PTT and listen**
   When you let go you should hear a short burst or "kerchunk" as the repeater drops. That means it heard you.

What to say

> Testing: **"[your call sign] testing on the Nashville 575."**

> Looking for anyone: **"[your call sign] monitoring."**

> Calling family: **"Mary, this is Tom, [your call sign]."** ... **"Go ahead, Tom."**

> Signing off: **"[your call sign], clear."**

7. Repeater manners and the rules

Say your call sign
At the end of each conversation and at least every 15 minutes while talking. (FCC rule.)

Pause between turns
Leave a second or two so someone with an emergency can break in.

Keep it short
Repeaters are shared and many time out after a few minutes of talk.

Plain language
No profanity, no music, no codes meant to hide meaning, no business advertising.

Emergency: say **"Break, break, emergency, [your call sign]"**, then where you are first and what happened second. Anyone may use any radio to call for help when life is at risk.

8. When it doesn't work

What happens	Try this
No "kerchunk" after you let go	Check the tone is 141.3 for transmit; confirm you're on the repeater channel (462.575 with "+"/RPT); set power to High; step outside or upstairs.
You hear the repeater but nobody answers	It's working; try again at a busier time, or ask a family member to listen.
You hear other people but they can't hear you	You're probably out of range on transmit: move higher, use the long antenna, use High power.
Broken-up, scratchy audio	You're at the edge of coverage; move a few feet, or hold the radio upright.
Keys don't respond	Keypad is locked: hold * for 2 seconds.
"CT" disappears after changing channel	The tone didn't save on that preset channel; build your own channel (Way B) or use CHIRP.
Still can't tell if you're getting in	Have a family member set a second radio to **467.575** (the repeater's input), tone 141.3, and listen while you talk. If they hear you but the repeater doesn't answer, it's your tone or the repeater; if they don't hear you, check your radio.
Nothing at all	Battery charged? Volume up? Keypad locked (key symbol on screen)? The repeater may be off the air; check myGMRS.com.

9. Quick-reference card

Cut out and keep with the radio.

Call sign	_____
Repeater	Nashville 575 (Love Circle) · WQZI220 · open
Frequencies	Out 462.575 · In 467.575 (+5 MHz)
Tone	141.3 transmit and receive
Family simplex	Channel 20 (backup 22), no repeater
How to talk	Listen · hold PTT · wait 1 sec · speak · release · listen
ID rule	Your call sign at the end and every 15 minutes

Repeater details from myGMRS.com, October 2026. GMRS rules: FCC 47 CFR Part 95, Subpart E. Menu names follow BaoFeng GMRS radios and may differ slightly on other models.