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Programming the Baofeng UV-5R with CHIRP

Quick reference for the workshop. Page 2 has the full Claude or Gemini prompt.

What you need

- UV-5R, charged, antenna on, volume up a little
- Programming cable with a 2-pin Kenwood-style plug and an **FTDI or CH340** chip (skip counterfeit Prolific cables)
- CHIRP-next, free from **chirpmyradio.com** only

The six steps

1. **Connect.** Push the plug in until it seats flush. Note your port (Windows: Device Manager › Ports).
2. **Download.** `Radio › Download From Radio`, then Baofeng, UV-5R.
3. **Back up.** `File › Save As` uv5r-original.img. Do this every time.
4. **Add channels.** RepeaterBook, RadioReference, or a CSV (below). Each opens in its own tab. Copy the rows you want, click the starting row in the radio tab, and paste.
5. **Upload.** `Radio › Upload To Radio`. Hands off until it finishes. Save again.
6. **Test.** VFO/MR for channel mode. Listen, then give your call sign and say testing.

Repeater settings

COLUMN	WHAT TO PUT
Duplex	+ or - for repeaters, blank for simplex, **off** for receive only
Offset	0.600 on 2 m, 5.000 on 70 cm
Tone Mode	**Tone** to open a repeater (TSQL also filters what you hear)
Tone	PL tone from the listing, e.g. 100.0
Name	7 characters max on a UV-5R
Channels	0 to 127 (128 total)

Where to find frequencies

- **repeaterbook.com**: ham repeaters. In CHIRP use `Radio › Query data source › RepeaterBook`, or log in on the site and Export a CHIRP file, then `File › Open`.
- **radioreference.com**: weather, fire, EMS, rail and more by county. Listen only, so set Duplex to off. The UV-5R hears analog FM only, not trunked, digital, or encrypted systems.
- **Your club and coordination council**: what is actually on the air this year.
- **claude.ai or gemini.google.com**: builds a whole CSV for you (page 2).

Troubleshooting

PROBLEM	TRY
Radio did not respond	Push the plug in harder, radio on, check the port
No port appears	Cable driver or counterfeit chip; use FTDI or CH340
Model error	Check chirpmyradio.com for your variant's model
Hear it, can't open it	Tone, offset, or +/- wrong
Hear nothing on it	Tone Mode set to TSQL; try Tone
CSV: No channels found	Close it in Excel; header exact, no quotes

Stay legal. Anyone can listen. Transmitting on ham bands takes a license (Technician or higher). Give your call sign at the end of a contact and every 10 minutes. The UV-5R is not certified for FRS, GMRS, or MURS, so don't transmit there.

Undo button: open uv5r-original.img and upload it to put the radio back the way it was.

OPTION C · LET AI DO THE TYPING

The Claude or Gemini prompt

Copy it, change everything in [brackets], and paste it into claude.ai or gemini.google.com.

```
Build a CSV file I can open in CHIRP for a Baofeng UV-5R.

Include:
- The 2 m and 70 cm amateur repeaters within [25] miles of [TOWN, STATE]. Put my main repeater, [CALL SIGN on
FREQUENCY], in Location 0.
- The 146.520 and 446.000 simplex calling frequencies.
- The seven NOAA weather channels (162.400 to 162.550) as receive only.
- [Anything else: club or ARES simplex frequencies, county public service channels to monitor only.]

Format rules:
- Use exactly this header row, with no quotes:
Location,Name,Frequency,Duplex,Offset,Tone,rToneFreq,cToneFreq,DtcsCode,DtcsPolarity,RxDtcsCode,CrossMode,Mode,TS
tep,Skip,Power,Comment,URCALL,RPT1CALL,RPT2CALL,DVCODE
- Match these example rows exactly, including the number formats, Tone->Tone, 023, NN, 5.00, and the four empty
columns at the end:
0,LOCALRP,146.940000,-,0.600000,Tone,100.0,100.0,023,NN,023,Tone->Tone,FM,5.00,,4.0W,Example repeater,,,,
9,WX1,162.550000,off,0.000000,,88.5,88.5,023,NN,023,Tone->Tone,FM,5.00,S,1.0W,NOAA weather receive only,,,,
- Name: 7 characters or fewer.
- Duplex: + or - for repeaters, empty for simplex, off for anything I can't legally transmit on.
- Tone: "Tone" when a repeater needs a PL tone (put the tone in both rToneFreq and cToneFreq). Leave it empty
when no tone is needed and keep 88.5 in the tone columns.
- Mode: FM unless the listing says narrow, then NFM. Power: 4.0W or 1.0W.
- Number the rows from 0 in the order I want them on the radio.

Give me the result as a downloadable .csv file (or in one code block), then list your source for every repeater
so I can check it.
```

Getting it into CHIRP

1. If you got a file, save it as **uv5r.csv**. If you got text, paste it into Notepad (Windows) or TextEdit in plain-text mode (Mac) and save as uv5r.csv.
2. In CHIRP, `File › Open` the CSV. It opens in its own tab.
3. Select the rows, `Edit › Copy`, click the starting row in your radio's tab, `Edit › Paste`.
4. Upload to the radio and save the new image.

Check before you trust it

- Compare every repeater's frequency, +/-, and tone with RepeaterBook or the club that runs it.
- Make sure weather and public safety rows say **off** in Duplex.
- Key up on each repeater. If it won't open, suspect the tone first.
- Why the strict format: CHIRP rejects a line with a blank tone number, a missing cross mode, or power written as "High".