

# BTECH GMRS-RPT50 Repeater 1.008R Release

## New Features and Improvements in 1.008R

Release Date: 02/26/25

1. **Hand Microphone Full Transmit/Receive Functionality:** With firmware **1.008R**, the hand microphone is no longer limited to just configuration tasks—it can now be used for **both transmitting and receiving**, effectively allowing the GMRS-RPT50 to function as a **base station** in addition to its role as a repeater. This means users can key up and communicate directly through the repeater without needing an external radio, making it more versatile for base station operation in home, emergency, or mobile setups. Whether monitoring local traffic or coordinating with other stations, this feature adds convenience and flexibility to the repeater's capabilities.
2. **Streamlined Menu:** The firmware's menu system has been refined to remove unused, redundant, or rarely accessed items. This decluttering makes it quicker to navigate the settings you actually need, reducing the likelihood of user confusion or misconfiguration.
3. **CW ID On/Off:** CW ID is the Morse code identifier that can be sent automatically to comply with identification requirements. Firmware 1.008R lets you decide whether to turn this ID feature on or off, giving you the flexibility to manage IDs exactly how you prefer—either automated via CW, or handled manually or by external logic.
4. **Adjustable Squelch Level:** You can now more precisely set how sensitive the repeater is to incoming signals. This is helpful if you live in an area prone to weak signals or noisy RF environments. By raising or lowering the squelch threshold, you can reduce unwanted static triggers while still allowing legitimate signals to pass.
5. **Carrier Squelch RX/TX Mode:** Previously, many repeaters required a CTCSS or DCS tone to activate transmit or open the squelch. With 1.008R, you have the option of pure carrier-based operation, ignoring any sub-audible tones on both receive (RX) and transmit (TX). This is especially handy for simple or wide-area repeater setups where tone-based access isn't required or desired.
6. **CTCSS/DCS Transmission with Identifier:** Firmware 1.008R introduces a new configuration option that allows the CW ID to be transmitted either with or without the CTCSS/DCS tone used by the repeater. This gives users the flexibility to choose whether the station ID follows the same tone settings as regular transmissions (for systems requiring a uniform tone policy) or if it is sent without a tone, which is the standard practice for identification. This option ensures compatibility with different repeater setups while maintaining compliance with identification requirements.
7. **Password Disable Option:** For those who prefer seamless operation, the password feature can now be turned off entirely. This option removes the prompt that appears when configuration changes, ideal for shared stations in secure locations where password protection isn't needed.

# Full Update Instructions – Firmware 1.008R

This guide walks you through updating your GMRS-RPT50 repeater to firmware version **1.008R**. The process consists of two main parts:

1. **Part 1(Conditional): Loading the “.bin” file** (via the front RJ-45 mic jack using ExtraPutty)
  - a. **NOTE:** The “.bin” file upload (Part 1) is only required for first production-run GMRS-RPT50 units that do not have front mic transmit enabled by default. If you are unsure or believe your repeater is from this first run, contact BTECH (support@baofengtech.com) with a picture of your repeater’s serial number. If you do not have the RJ-45 programming cable, it will be sent to you at no charge.
2. **Part 2: Updating the main firmware** (via the rear USB port using the IAP programmer tool)

Once complete, your repeater will have all the features from previous versions **plus** several new perks described at the end of this document.

## Part 1 (Conditional): Load the “.bin” File via ExtraPutty Enables the Front Mic to Be Used as a Base Station

*Only perform these steps if your GMRS-RPT50 is from the first production run that requires enabling mic transmit on the front panel.*

1. **Contact Support (if Needed)**
  - a. If you do not have the RJ-45 to USB-A cable, email **support@baofengtech.com** with a picture of the repeater’s serial number. A cable will be provided free of charge if your unit is confirmed to need this upgrade.
2. **Install ExtraPutty**
  - a. Right-click the ExtraPutty installer, choose **“Run as Administrator.”**
3. **Put the Repeater in Upgrade Mode**
  - a. Power off the GMRS-RPT50.
  - b. **Hold** the Volume Control knob while powering it on.
  - c. Release the knob when the display lights up and shows this on the display.

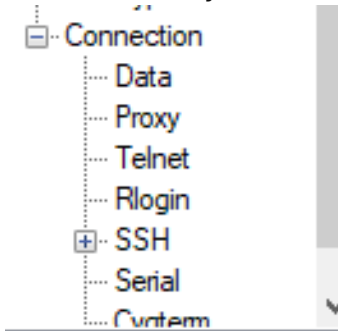


4. **Connect the Cable**
  - a. Plug the **RJ-45 to USB-A cable** into the **front mic jack** on the repeater.
  - b. Plug the USB-A end into your computer. Listen for the Windows “connected” sound.
5. **Check Your COM Port**

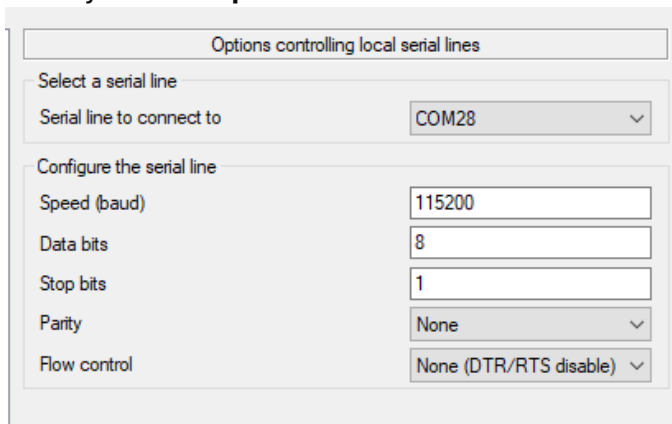
- a. Open **Device Manager** and expand \*\*“Ports (COM & LPT).”
- b. Look for “**Silicon Labs CP210x USB to UART Bridge (COMxx).**”
- c. Note the COM port number (xx).

## 6. Configure ExtraPutty

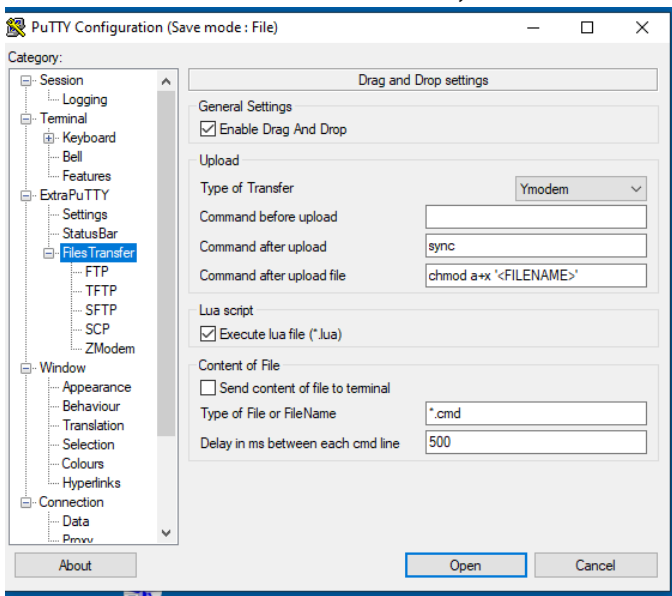
- a. Start ExtraPutty. On the left, click “**Serial**” under “Connection.”



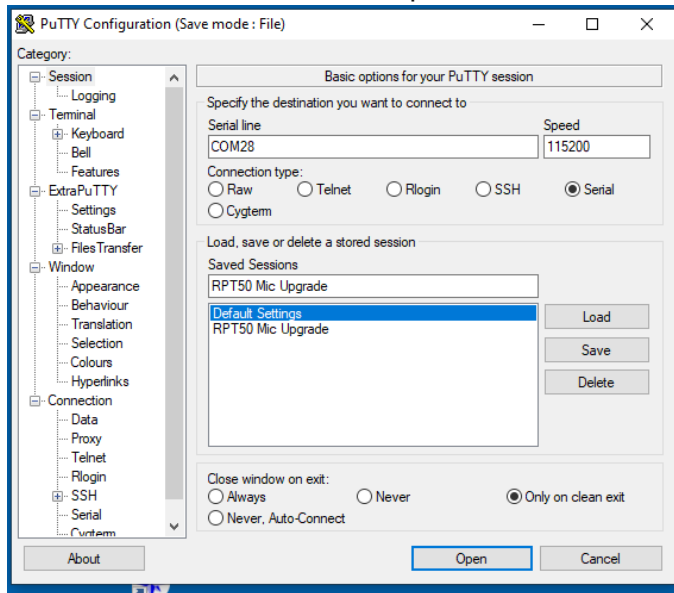
- b. Enter your **COM port number** and set as shown



- c. Click “**Files Transfer**” on the left, then choose “**Ymodem**” on the right.

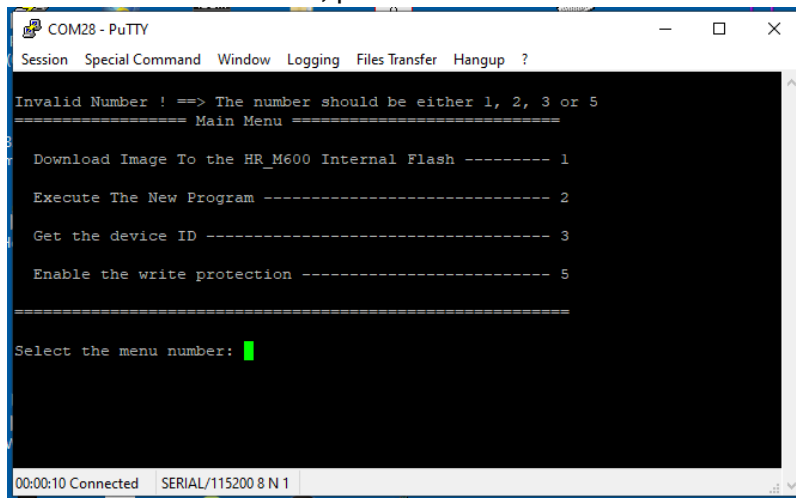


- d. Return to “**Session**” at the top of the left menu and click “**Open.**”

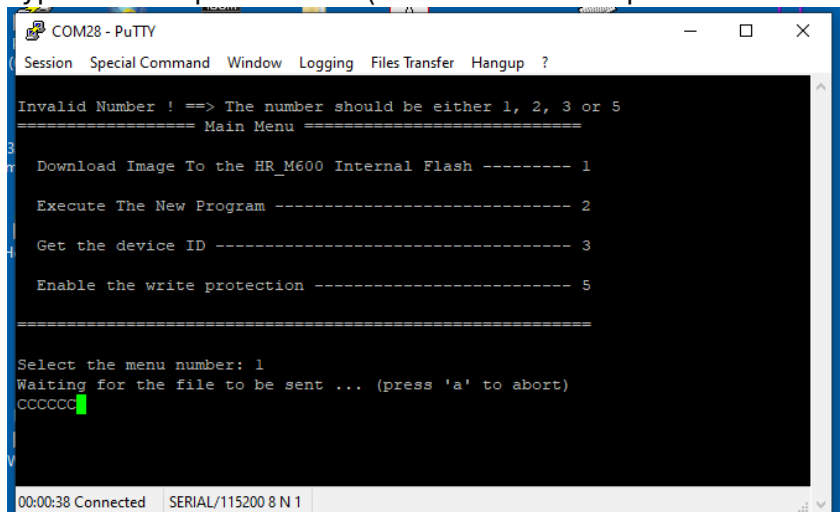


## 7. Send the “.bin” File

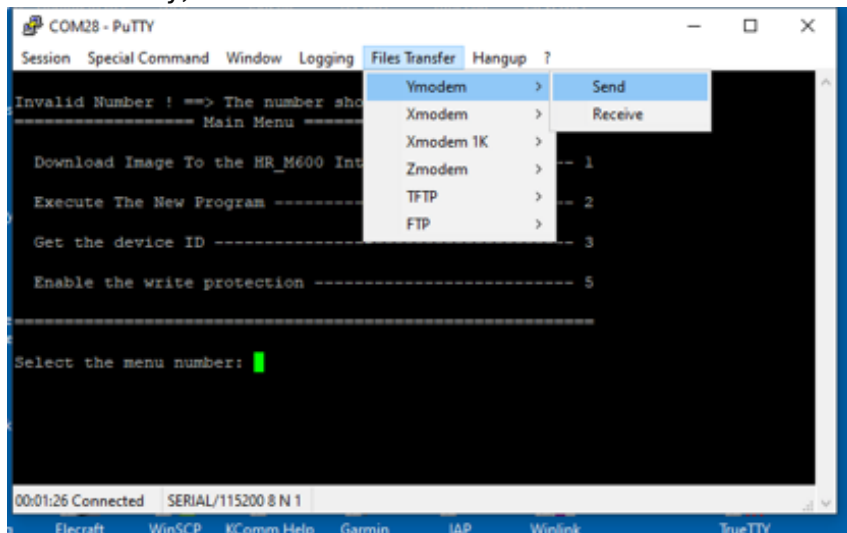
- a. In the terminal window, press **Enter** once. A numbered menu should appear.



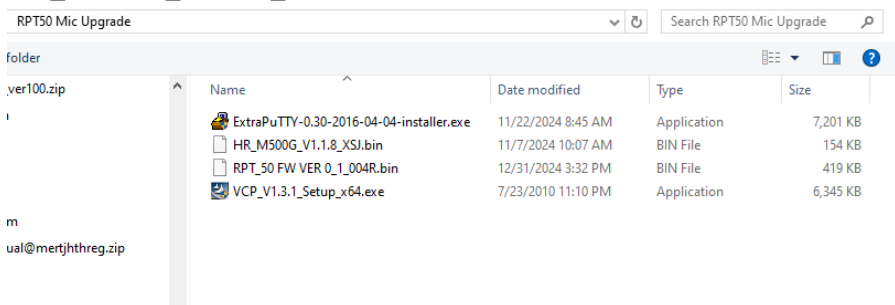
- b. Type “**1**” and press Enter. (This readies the repeater to receive the file.)



- c. In ExtraPutty, click “Files Transfer” → “Ymodem-Send.”



- d. This will open a window allowing you to select the file to load. Select **HR\_M500G\_V1.1.8\_XSJ.bin**.



- e. Let it upload fully. Once finished, disconnect the RJ-45 to USB-A cable.
- f. **Power cycle** the repeater (turn it off, then on). **Do not** test yet—you still need to perform **Part 2** to complete the firmware update.

## Part 2: Updating the Main Firmware to 1.008R

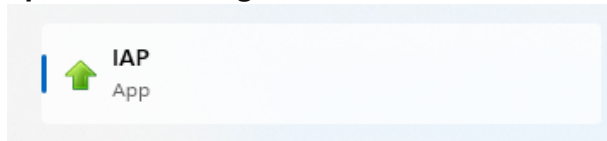
These steps apply to **all** GMRS-RPT50 units, regardless of production run, to install the latest firmware.

### Step 1: Install the IAP Programmer Tool

1. Within the extracted folder, locate and **run** the file named **IAP(setup).exe**.
2. Follow the on-screen prompts to **install** the IAP Programmer Tool.
3. After installation, you can find the tool in your **Start menu** or on your **desktop**.

### Step 2: Launch the IAP Tool

1. **Open** the IAP Programmer Tool.



### Step 3: Put the Repeater into Firmware Update Mode

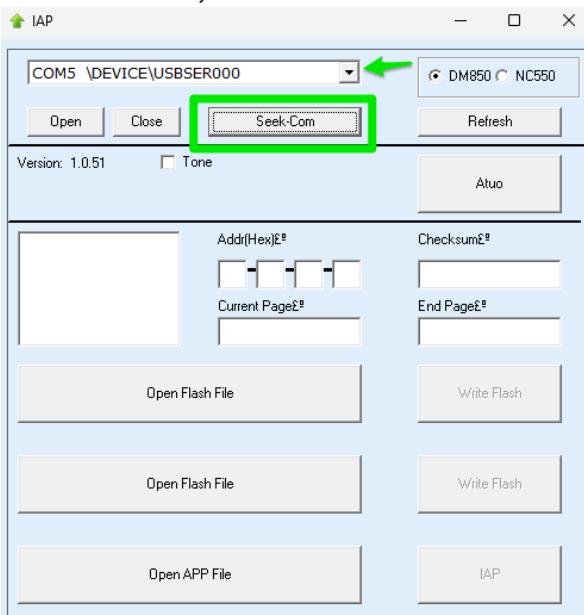
1. **Power off** your GMRS-RPT50.
2. **Press and hold** the **green key** while powering it on.



3. If done correctly, the **LCD remains off** (no display).
4. Connect the repeater's **rear USB port** to your computer with a **USB-A to USB-A** cable.

### Step 4: Check and Select the Correct COM Port

1. In the **IAP tool**, click **"Seek-Com"** to detect available COM ports.



2. Select the COM port that matches your GMRS-RPT50.

### Step 5: Open the Firmware File

1. In the IAP tool, click **“Open APP File.”**
2. Navigate to the **firmware file (RPT\_50 FW VER 0\_1\_008R.bin)**.
3. Select the file and click **“Open.”**

### Step 6: Start the Firmware Update

1. Click **“IAP”** to begin the firmware update.
2. The tool will write data blocks (e.g., 207 blocks) to the repeater.
3. **Do not disconnect** or power off the repeater while it’s updating.
4. Wait for the update to **fully complete**—the IAP tool will confirm when it’s done.

### Step 7: Close the COM Port Connection

1. After a successful update, click **“Close”** in the IAP tool.
2. This ensures a **safe disconnect** from your GMRS-RPT50.

### Step 8: Reboot Your Repeater

1. **Unplug** the USB cable.
2. **Power off** the repeater (if it hasn’t powered off on its own).
3. **Power it on** again normally.
4. The repeater now boots with the **1.008R** firmware.

## Enjoy Your Updated GMRS-RPT50!

That’s it—your **BTECH GMRS-RPT50** is now fully updated to **1.008R** and packed with new features to enhance your repeater experience.

At **BTECH**, we’re always looking for ways to improve our products, and we love hearing from our users. If you have ideas for new features or improvements, feel free to reach out—we’re always listening, and your feedback could help shape the next firmware update!

For any questions, support requests, or feature suggestions, email us at:  
**support@baofengtech.com**

Enjoy all the new capabilities of your upgraded repeater and stay tuned—BTECH is always innovating!