

DMR Radio Setup – Windows 10

This set-up describes the initial set-up of a Retevis RT3R DMR, but can be adapted for other makes and models, where appropriate. Please report any errors or send comments to G0GFD@ontheradio.org. You follow this guide at your own risk as if you don't understand what you are doing you may upset your PC or radio!

1. Software Download

Download the driver software from the official Retevis site, together with the firmware update package and the programming software.

2. Disable Windows Driver Signing Code

Disable the Windows Driver Signing Code with Local Group Policy Editor:

- a. Step 1: Press the Windows key + R key at the same time to open the Run dialog box. Next, type gpedit.msc in the Run box and press Enter to open Local Group Policy Editor.
- b. Step 2: Once in the Local Group Policy Editor window, navigate to User Configuration > Administrative Templates > System > Driver Installation from the left panel.
- c. Step 3: Right-click the Code signing for device drivers entry and then select Edit.
- d. Step 4: Now check Enabled and then choose Ignore from the drop-down list under Options.
- e. Step 5: Click OK and then click Apply to perform all the changes.

3. Disable USB Hub power-saving:

- a. Go to Device Manager > USB Serial Bus Controllers > Root Hub (there may be more than one).
- b. Right click on each one, click on "Properties", click on "Power Management" tab, uncheck "Allow this computer to turn off this device to save power" by clicking in the box. If already unchecked, do not change it.

4. Install Driver Software

Install the driver package from Step 1.

5. Reboot the PC

6. Connect Cable

Plug in USB programming lead into a USB socket and connect to the radio. Power on the radio whilst holding the PTT and the button above the PTT button on the side of the radio. Turn the volume control up to about 30%.

7. Install Firmware

Install the firmware update package from Step 1.

An icon will appear on the desktop "Upgrade Download".

8. Open Firmware Update package:

The screenshot shows the 'DMR Download Software' window. It is divided into four main sections:

- Download BOOT:** Contains a text input field, a 'Download file of boot' button, and an 'Open file of boot' button.
- User program:** Contains a text input field with the path 'X:\RT3S\RT3S-firmwareV3.04\RT3S(CSV-GPS)-P18.16.bin', a 'Download file of upgrade' button (highlighted with a blue border), and two 'Open file' buttons: 'Open file upgrade' and 'Open file of password'.
- Download Picture Power on:** Contains a text input field, a 'Download file of BMP' button, and an 'Open file of BMP' button.
- Device ID:** Contains a large text input field, three buttons: 'Open file of device id', 'Read device id', and 'Active device id', and three smaller text input fields below the buttons.

In the firmware update program, click on “Open file upgrade” and select the version you would like to use. There will be four choices, two for non-GPS and two for GPS versions. Ensure you select the correct one for your radio, depending whether it has GPS or not. Of the two versions for your radio, the (CSV) version as this will allow maximum number of records for your contact database.

Click on “Download file of upgrade” to send the file to your radio.

9. Check Radio Status

- Switch off the radio and remove the lead.
- Switch on the radio and ensure something sensible appears on the screen!

10. Install Program Software

Install the program software from (1). For this example, it will be for the GPS version of the radio, RT3_SGps.exe.

For the next steps, it will be assumed it will be installed in a folder on the C: drive and a folder called RT3S_Gps.

11. Change ini file

This step is important so you do not get locked out of your radio with an unknown password.

- a. Go to the RT3S-Gps folder
- b. Right click and edit setting.ini (you may have to change the Windows folder view to view file extensions)
- c. Change the line "password=0" to "password=password".
- d. Save

12. Connect Cable

Plug in USB programming lead into a USB socket and connect to the radio. Power on the radio whilst holding the PTT and the button above the PTT button on the side of the radio. Turn the volume control up to about 30%.

13. Run the RT3_SGps software

It is important to follow these steps in the exact order.

- a. Read the code plug from the radio (Program > Read Data).
- b. Save the code plug (as Default)
- c. Go to "General Settings".
 - a. Ensure Password and Lock Enable box is not checked
 - b. Clear the PC Programming Password box
 - c. Clear the Radio Programming Password box
- d. Save as "Default1"
- e. Send the data to the radio (Program > Send Data)

Your code plug

Load or create your own code plug, remembering your ID number (Radio ID) and call sign (Radio Name) if you choose a ready-made code plug.