RT86 Compatibility and Pairing Guide

Parameter	Consistency Requirements	Function and Operating Instructions
Operating frequency	The receive frequency (Rx) and transmit frequency (Tx) must be exactly the same.	This is the basic channel for communication. Both parties must tune to the same frequency.
Modulation system	Both must be analog frequency modulation (FM).	The RT86 is an analog walkie-talkie and cannot directly interoperate with digital walkie-talkies. However, it supports interoperability with dual-mode (analog and digital) walkie-talkies, such as the NR30D and NR40.
Tone Code	The CTCSS/DCS code must be set to the same code or be disabled simultaneously.	Enabling the CTCSS/DCS code enhances communication privacy. Radios with different code settings cannot communicate with each other. Retevis high-power professional walkie-talkies come with these codes enabled by default. You can disable or configure them via the software.
Channel Bandwidth	The channel bandwidth must be consistent, and 12.5kHz is usually selected.	This determines the channel width. A mismatch can cause voice distortion or loss of reception.
Other basic parameters	such as Transmit Power (it is recommended to set all to High), and the Scrambler (if used, the password needs to match).	Ensure communication quality and that additional features are in effect.

To establish communication between the RT86 and another radio of a different model, please follow this general procedure:

1. **Retrieve and Document the Target Radio's Parameters**

If th target radio is already in operation, you will need to use its factory software and cable to read the complete parameter set from one of its channels. Precisely document all items listed in the table above.

2. **Configure RT86 Parameters for Compatibility**

Using the RT86 configuration software, write all parameters retrieved from the target radio onto a blank channel, ensuring they are entered exactly as documented.
Critical: The frequency and CTCSS/DCS codes must match exactly. Also confirm that the bandwidth mode is identical.

3. **Testing and Adjustment**

Place both radios at the same location and conduct a call test using the newly configured channel.
If reception fails, first check the CTCSS/DCS code settings and try temporarily disabling the codes on both radios for testing.
If the call has static or is intermittent, check whether the bandwidth settings are consistent.