

Setting up for RTTY Low Tones

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The RTTY hardware and software used in contests typically installs or uses 2125 Hz and 2295 Hz as the default audio tones. Some experienced RTTY contesters prefer to operate with “low tones” in the belief that a lower audio frequency is easier to listen to for the extended period of time of a longer RTTY contest. If your RTTY operation is limited to shorter operating periods, switching to low tones may not offer any advantage. But if your RTTY operation includes some longer stretches, switching to low tones may reduce fatigue and help you stay in the chair longer.

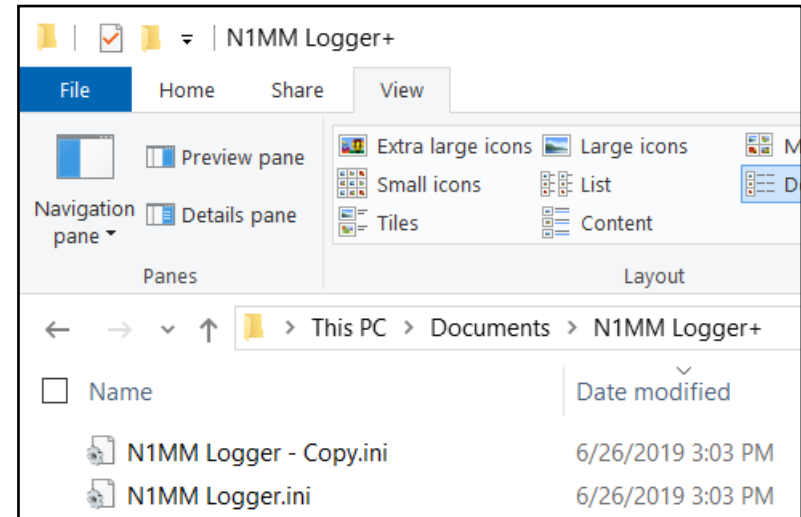
This guide assumes you already have RTTY set up and operating in your station and covers only the steps necessary to convert to low tones, specifically 1275 Hz and 1445 Hz. The guide is written from the perspective of an operator using N1MM+ for contest logging, MMTTY to transmit AFSK RTTY and serve as the primary decoder, 2Tone as a secondary decoder, and a Flex 6600 radio running AFSK RTTY. The software setup for other radios should be similar but the changes necessary to the radio itself could be very different.

Step 1: Disaster Recovery: Software

Make sure you can recover your original settings in the event you don't care for low tones or make a mistake in the setup and need to revert to your last known good setting.

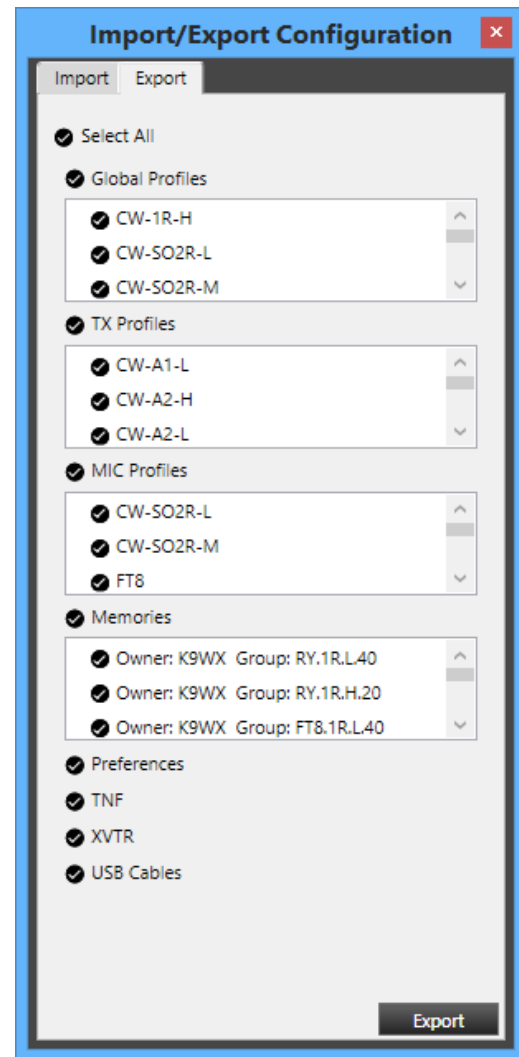
The operating settings for N1MM+, MMTTY and 2Tone are stored in ini files, one for each piece of software. The N1MM ini files will most likely be in your Documents\N1MM Logger+ folder. The ini files for MMTTY and 2Tone (if you use 2Tone) should be found in whatever folder you installed these applications.

Make backup copies of each ini file so you can easily restore your original settings if necessary.



Step 2: Disaster Recovery: Hardware

The Flex 6600 radio uses exported profiles to save certain radio settings. Many other modern radios have a similar capability to save radio profiles outside of the radio so that the radio settings can be restored to the previous setup if necessary. You should save and export your old radio profile or settings if your radio has this capability in the event you want to later revert to standard RTTY tones.



Step 3: N1MM+

In the N1MM+ **DI (Digital Interface) Window**, click on Setup/Settings to open the **Digital Setup Window**. Click on the General/MMTTY Setup tab. Change the MMTTY alignment number to 1275. Click on the “Save Settings” button to close. MMTTY may close and reopen.

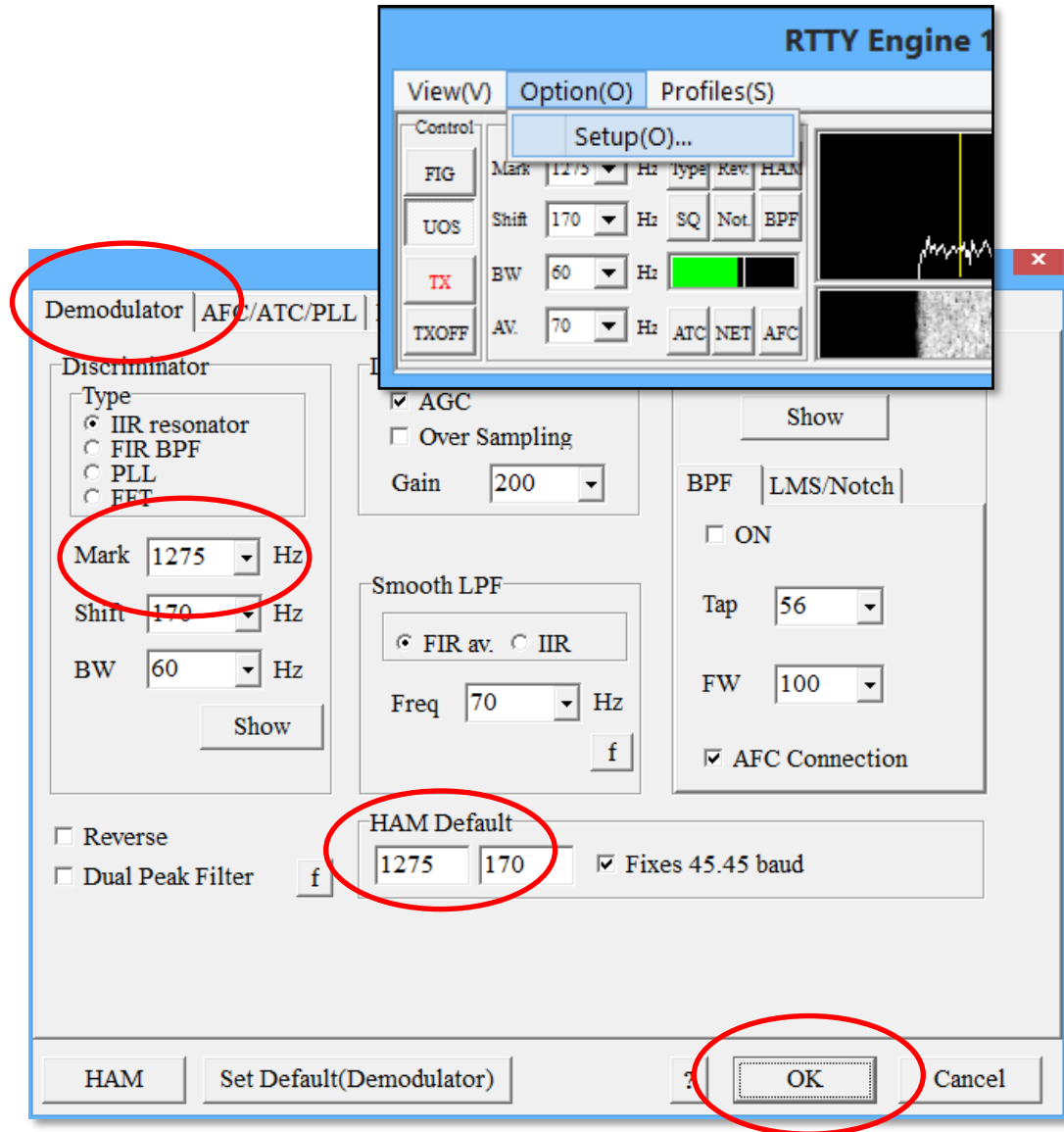
The screenshot shows the N1MM+ Digital Setup Window. The 'Setup' menu is open, and the 'Settings' option is selected. The 'General / MMTTY Setup' tab is active. The 'Alignment Frequency' section is highlighted, showing the MMTTY alignment number set to 1275. The 'Save Settings' button is also highlighted.

MMTTY	MMVARI	FLDIGI
1275	RTTY 500 *	RTTY 1500
	Other 1500	Other 1500

MMTTY.FLDIGI = Mark Freq MMVARI = Center Freq
* Add 85 to place Mark Freq on desired frequency. Ex. On 2000 enter 2085

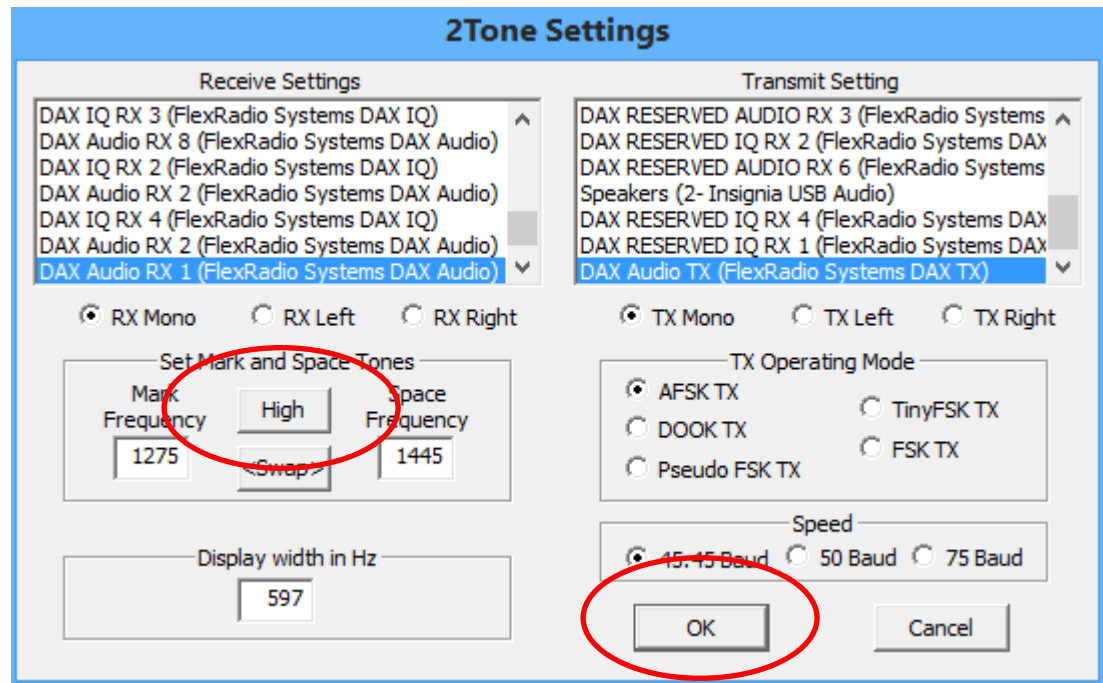
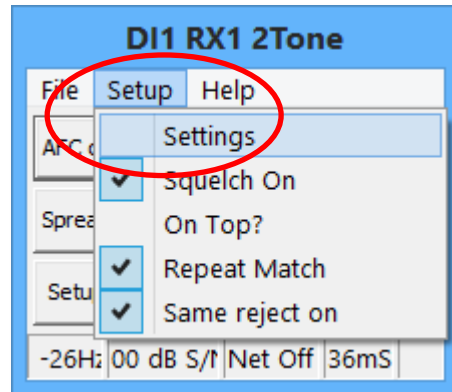
Step 4: MMTTY

In the MMTTY **RTTY Engine Window**, click on Options/Setup to open the MMTTY **Setup Window**. On the Demodulator tab, change the number in the “Mark” box to 1275 and change the number in the “Ham Default” Window to 1275. Click the OK button to save your changes. MMTTY may close and reopen.



Step 5: 2Tone

If you do not use 2Tone as a second decoder you can skip this step. Otherwise, click on Setup/Settings in the **DI1 RX1 2Tone Window** to open the **2Tone Settings Window**. Clicking on the High/Low button will toggle 2Tone between its two audio tone options. Leave it set for a Mark Frequency of 1275. Click the OK button to save your changes.



Step 5: Radio

In the Flex **Smart SDR Window**, click on the DSP button in the slice flag. Change the Mark number to 1275.

In the Flex **Smart SDR Window**, change the TX Filter numbers to 1060 for the Low Cut and 1660 for the High Cut.

This completes the conversion to low tones. You should make at least one contact with these new setting to confirm that they work for both transmit and receive.

