UVK5 CW固件 使用说明

UVK5 CW Firmware User Guide

烧写新固件前请务必备份现有数据

Please be sure to back up existing data before burning new firmware

本固件基于 uv-k5-firmware-fagci-mod 的 reg 分支修改而来。

This firmware is modified based on the reg branch of uv-k5-firmware-fagci-mod.

保留了Fagci固件的大部分功能

Retains most of the original functions of Fagci FW

为了扩展空间，删除了下列功能

The following functions have been removed to make space

1. FM收音机
1. FM Radio
2. 开机密码
2. Password
3. 频谱
3. Spectrum
4. 隔空复制
4. Air Copy

应用内不含以下功能

The following features are not included in the app

1. 静噪
1. SQL
2. 信道存取及其衍生功能
2. Channel and all functions related to it
3. 与数字通信相关的所有功能
3. All functions related to digital mode

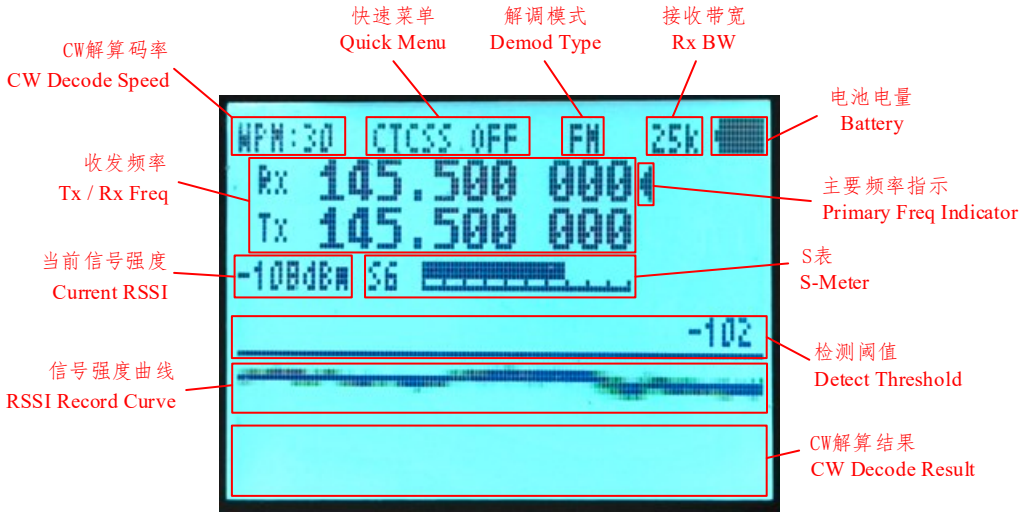
0. 进入应用

0. Enter App

F #	+	5 NOAA

1. 主界面

1. Main Interface



2. 基本操作

2. Basic Operation

2. 1. 各按键在主界面下的功能

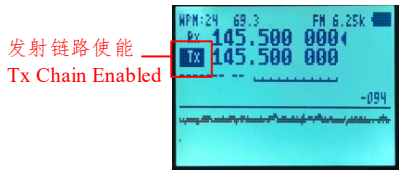
2.1. Functions of each key on the main interface

∧ B	∨ C	调整主要频率（ 所指的那个频率）。步进：FM-1k；AM-0.5k；DSB-0.1k Adjust primary frequency (The frequency tha points to). Step: FM-1k; AM-0.5k; DSB-0.1k
1 Band	7 VOX	调整次要频率（另一个频率） Adjust secondary frequency (The other frequency)
	2 A/B	切换主/次要频率 Switch primary/secondary frequency
	5 NOAA	进入频率输入模式，手动输入主要频率值 Enter frequency input mode, manually enter primary frequency
3 VFOMR	9 Call	调整检测阈值 Adjust detect threshold
	6 HML	切换接收带宽（25k/12.5k/6.25k） Toggle Rx BW (25k/12.5k/6.25k)
	0 FM	切换解调模式（FM/AM/DSB） Toggle Demod Type (FM/AM/DSB)
	M A	进入快速菜单 Enter quick menu
	EXIT D	返回上一级（若在频率输入模式或快速菜单中）或退出应用 Back to previous state (if in freq input mode or quick menu) or exit app
	PTT	开始发送（FM模式）或激活发射链路（DSB模式且CW使能） Start Tx (FM mode) or activate Tx chain (DSB mode with CW enabled)

2. 2. FM发射

2.2. FM Tx

在FM模式下按 PTT 进行FM发射，与普通对讲机没有区别
In FM mode, press PTT to start FM transmit, like ordinary walkie-talkies



2. 3. 快速菜单

2.3. Quick Menu

进入快速菜单后，对应区域变为黑底白字
After entering the quick menu, the area changes to black background.

此时可用 ∧ B ∨ C 键调整参数值
Pressing to change value

参数值一经调整随时保存，因此不需要额外的保存操作
Values are automatically saved after change, so no additional saving operations are required

按 M A 或 EXIT D 键退出快速菜单
Pressing or to exit quick menu

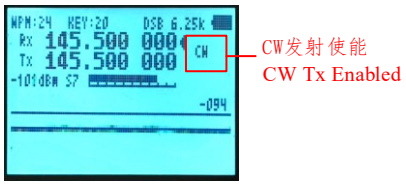
快速菜单内容根据解调模式而定：FM – CTCSS哑音频率；AM/DSB – 自动发报码率
Parameter in quick menu depends on Demod Type: FM – CTCSS Tone Freq; AM/DSB – Auto CW Tx Speed

2. 4. 手动CW发射

2.4. Manual CW Tx

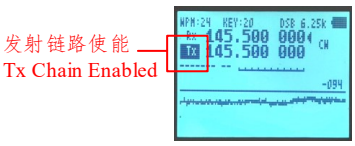
只有在DSB模式且CW发射使能时才可以进行CW发射。FM与AM模式不能进行CW发射
CW transmission is only possible in DSB mode and CW Tx is enabled. FM and AM modes cannot transmit CW

进入DSB模式后按 8 R 键使能CW发射功能
In DSB mode, press to enable CW Tx

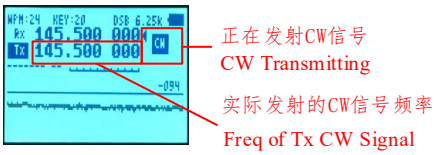


再次按 8 R 键或离开DSB模式，CW发射关闭
Press again or leave DSB mode, CW Tx is disabled

在CW使能后，按住 PTT 打开发射链路，但不向外发射电波
Press and hold to enable Tx chain, but no radio wave transmit



发射链路使能的情况下，将 5 NOAA 键作为电键进行CW拍发
When Tx chain is enabled, using key as CW key for CW transmission



发射时将播放600Hz的侧音作为提示
The Tx tone playing from speaker is 600Hz

实际发射的信号频率为Tx所显示的频率（就是第二行显示的频率）
The actual transmitted signal frequency is the Tx Freq (the frequency displayed on the second line)

3. 自动CW发报

3. Auto CW Tx

固件支持以12/16/20WPM的速度发射最长64字符的消息。提供5个普通消息存储区和1个快速消息存储区以适应不同场景

The FW can transmit CW messages up to 64 characters at 12/16/20WPM. Provide 5 msg slots and 1 quick msg slot for different scenarios

3. 1. 消息编辑模式

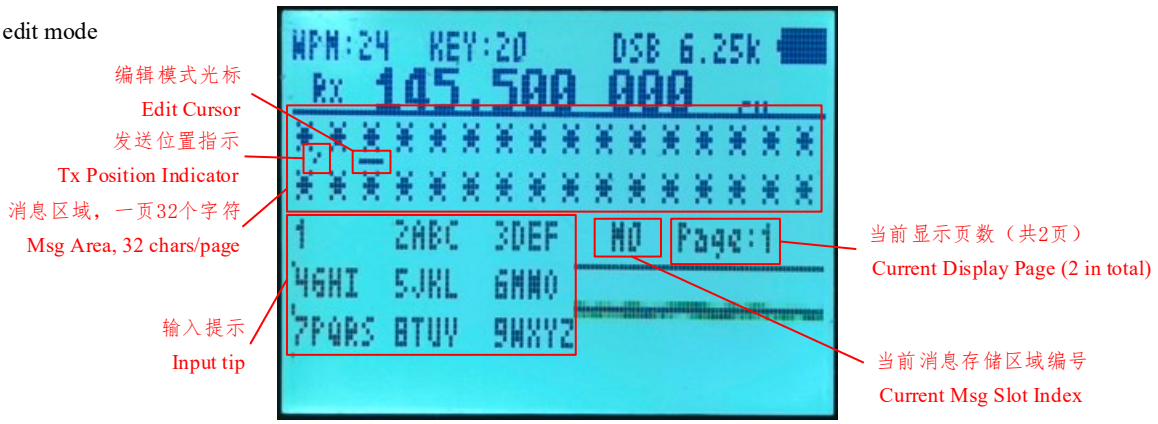
3.1. Message Edit Mode

在DSB模式且CW发射使能时按侧键 ■ 进入消息编辑模式

In DSB mode with CW Tx enable, press ■ side-key to enter message edit mode

消息编辑模式界面

The interface of message edit mode



3. 2. 消息编辑模式操作

3.2. Operations In Message Edit Mode

0 FM ~	9 Call	输入字符（就像老式按键手机那样） Enter characters (like old push-button mobilephone)
	* Scan	确认当前字符并进入下一位 Confirm current character and move to the next
	F #	切换消息存储区（M0~M4，MQ） Switch message storage slot (M0~M4, MQ)
∧ B	∨ C	移动光标 Move cursor
	M A	在当前光标粘贴MQ存储区中的有效内容 Paste the valid content in the MQ slot under the current cursor position
	EXIT D	删除当前光标的内容，若当前光标下无内容（显示为*）则删除前一位的内容 Delete the content under the current cursor. If no content (displayed as *), delete the previous one
	■	退出消息编辑模式（所有内容都会保存） Exit message edit mode (All contents are saved)
	■■	清除当前存储区的所有内容 Clear all contents in current message slot
	PTT	按住以发送当前存储区的有效内容，直到第一个*号为止，松开暂停，再次按下继续 Press and hold to send all valid content in current storage slot until the first ‘*’, release to pause, press again to continue

3. 3. 普通消息存储区（M0~M4）

3.3. Normal Message Slots (M0~M4)

固件提供5个普通消息存储区，编号从 M0 到 M4，可通过屏幕上的标识判断当前存储区
The firmware provides 5 normal message slots, numbered from M0 to M4. Check current slot by the number on the screen.

每个存储区提供最多64字符的消息存储。可存储的字符为A~Z,0~9以及空格。无效字符（空内容）显示为“*”号
Each slot can storage of up to 64 characters. The valid characters are A~Z, 0~9 and space. Invalid characters (empty) are displayed as "*"

使用 0 FM ~ 9 Call 输入消息。当按下不同的键时，当前按键的值将被保存，并进入下一个字符。
Using 0 FM ~ 9 Call to enter msg. When a different key is pressed, current char is confirmed and move to the next char.

当需要连续输入同一个按键对应的字符时，可通过 * Scan 键确认当前值并进入下一个字符
When input characters corresponding to the same key, use * Scan to confirm the current char and move to the next character.

注意：1 Band 键只对应字符“1”，0 FM 键对应字符“0”与空格
Note: 1 Band only corresponds to "1", 0 FM corresponds to “0” and space

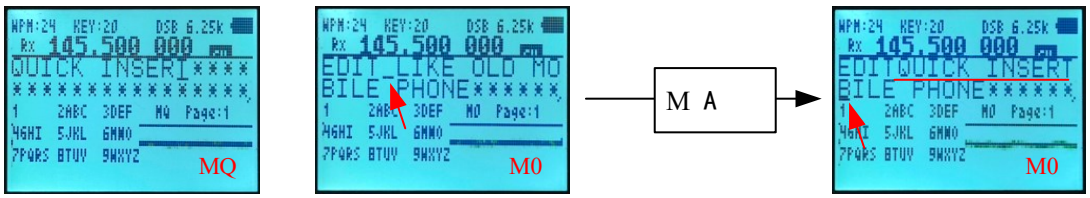
3. 3. 快速消息存储区（MQ）

3.3. Quick Message Slots (MQ)

固件提供1个快速消息存储区，编号为 MQ
The firmware provides 1 quick message slot, number is MQ

快速消息存储区有普通消息存储区的所有功能，你可以在此编辑消息并直接发送
The quick message slot has all the functions of the normal message slots. You can edit messages here and send them directly.

在普通消息存储区（M0~M4）中，可按 M A 键将MQ中的有效字符粘贴到光标所在位置
In normal msg slots (M0~M4), pressing M A to paste valid characters in MQ to cursor position



3. 4. 注意事项

3.4. Attention

消息存储区以“*”号作为无效符号，消息发送和消息拷贝动作都在遇到第一个“*”号时停止。所以请在操作前检查是否存在不必要的“*”号
The msg slots uses "*" as invalid symbol. Message sending and message copying actions stop when encountering the first "*". Check whether there are unnecessary "*" in message before operation

消息发送完成（即发送到第一个“*”号）后，发送计数器不会复位，可通过**退出编辑器**、**切换存储区**、**清空存储区**复位发送计数器
After the message is sent (sent to the first "*"), the sending counter will not be reset. You can reset the sending counter by **exiting Edit Mode**, **switching msg slots**, or **clearing the slot**.

@Waixinyatian

4. 自动CW解码

4. Auto CW Decode

4. 1. 操作指南

4.1. Operation Guide

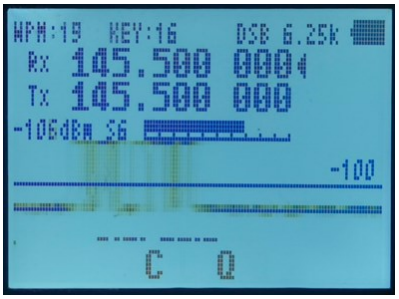
固件支持根据RSSI强度，解算最近5秒内的，码率12~30WPM范围内的CW信号
The FW supports decoding CW signals in the last 5 seconds with rate in 12~30WPM based on RSSI record

由于只能得到整个接收带宽内的RSSI强度值，因此推荐使用最小带宽（6.25k）进行CW接收
Since we can only get RSSI value within the entire Rx BW, it is recommended to use the minimum bandwidth (6.25k) for CW decode

CW解码在应用启动后自动进行，仅需通过 | 3 VFOMR | 9 Call | 键调整检测阈值
CW decoding is running automatically, press | 3 VFOMR | 9 Call | key to adjust detect threshold

解码器将分析高于检测阈值的RSSI记录，并计算记录时间内的信号码率，然后进行解码
The decoder will analyze RSSI records above the detect threshold and calculate WPM during the recording time and then decode

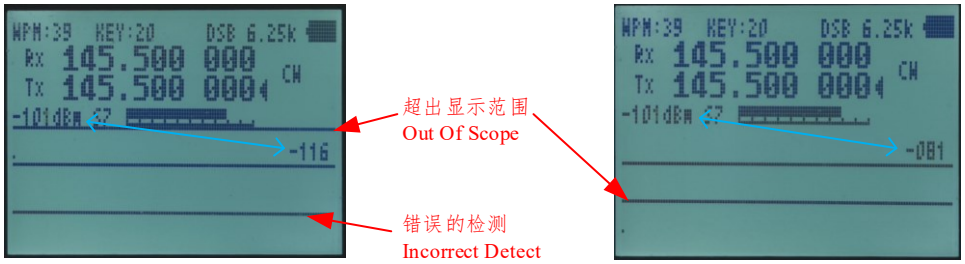
解码结果将以滚动形式显示在屏幕底部
The decoded results will be displayed in scrolling form at the bottom of the screen



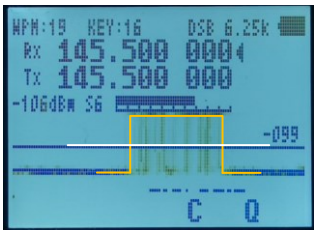
4. 2. 注意事项

4.2. Attention

RSSI曲线有显示范围，可以根据频率指示下方的实时RSSI找到大致数值
The RSSI curve has display range, you can find the approximate value based on the real-time RSSI below the frequency indicator.



将检测线横穿CW对应的RSSI脉冲曲线以获得更好效果
Place the detection line across the RSSI Pulse for better results



固件根据记录中最长的一条有效信号判断码率，发报方手法不佳可能会造成解码错误
The FW calculate the WPM based on the longest valid bit in the record. Poor sending methods may cause decoding errors.