

Winkeyer Release version 23 (2.3) has a considerable number of changes and improvements which are covered in this section. There are two sections; the first will cover functional changes to standalone keyer mode. The second section will cover changes that affect host operation.

Section One: Standalone Mode Changes (No host mode implications)

- 1) **Message stacking:** A second message can now be queued while a message is being sent. As soon as the current message is completed the queued message will be sent.
- 2) **Dual-press functionality refined:** To play or load message 5 or 6, first press and hold either pushbutton 2 or 3 and then momentarily press the command pushbutton (red). When you release both pushbuttons, the desired message will be played.
- 3) **Dual Press Message Buttons:** Since message stacking is now supported, it is no longer possible to stop a message by pressing the command pushbutton by itself. A message is aborted by either pressing one of the paddles or by pressing command and PB4 in dual-press fashion.
- 4) **Quick tune command with dual-press:** First press and hold PB4, then momentarily press the command pushbutton. When you release PB4, tune mode will be enabled until either paddle is pressed or CMD and PB4 are dual-pressed.
- 5) **T and L Standalone Command Remapping:** 'Tune' and 'Load Message' commands have been replaced with Load Tail time **T** and Load Lead In time **L** commands. Since messages can be loaded directly and tune is set by dual-press, these commands were redundant and confusing. The new mappings provide access to settings that were not previously allowed in standalone mode.
- 6) **B and S Standalone Command Redefinition:** The **B** command was previously unassigned, it now is used to set the bottom of the speed pot window. The **S** command previously set the keyer's WPM rate, this was problematic since this would conflict with the speed pot setting. The **S** command is now used to set the speed pot window range.
- 7) **Lead in and Farnsworth are now disabled during command mode.**
- 8) **Port change command /x:** Standalone embedded port change command /x is now a toggle from 0 > 1 or 1 > 0. A parameter specifying the port is no longer needed.
- 9) **Zero QRSS/HSCW Parameter Bug Fixed:** WKUSB would lock up if a zero was given as the parameter for either the QRSS or HSCW embedded standalone commands. This is now fixed.
- 10) **Analog standalone embedded commands no longer supported:** These commands are not possible with the new message stacking scheme. Letters **Y** and **Z** have been reassigned as Relative WPM Change commands.
- 11) **New relative WPM adjustment commands for standalone messages:** **Y** is speed up and **Z** is speed down. Both have a single parameter value of 0 to 9 which represents the speed increase or decrease in words per minute. For example:
`CQ TEST CQTEST /Z5K1EL K1EL/Y5 K` sends `K1EL` 5 WPM slower.
- 12) **Sleep current is greatly reduced:** When not in use, Winkeyer will go into low power standby mode (sleep). Changes in the controller's configuration at least double battery life compared to previous Winkeyer versions.
- 13) **Q command Changes:** Value ID letters and order now match command letters.
- 14) **Set Hang command:** Now accepts a value directly instead of cycling through settings.
- 15) **Removed message break setting:** Now that the analog readout commands have been removed, this function is no longer needed.

- 16) **Escape from /P command: Dual-press CMD+PB4:** Previous versions used the command button to escape from the Pause command. This is not possible with the new message stacking scheme. Instead a dual press of the command pushbutton and pushbutton 4 is now required.
- 17) Quick serial number decrement: Hold command pushbutton and press either paddle

Section Two: Changes that affect Host Mode

This section describes changes that have an effect on host mode operation. All of these commands also apply to standalone mode.

- 1) **Message break behavior change:** A message will be stopped immediately when either paddle is pressed. In previous versions, the message was not stopped until the current letter completed.
- 2) **Speed control response improved:** Now WPM updates are made in the midst of sending a letter.
- 3) **PTT functionality change:** When playing a message, or for letters sent from the host, PTT will be held during space and pad characters.
- 4) **Hang delays have been changed to:**
 Hang = 0: PTT is held for 1 wordspace plus 1 dit time after letter is finished.
 Hang = 1: PTT is held for 1 wordspace plus 2 dit times after letter is finished
 Hang = 2: PTT is held for 1 wordspace plus 4 dit times after letter is finished
 Hang = 3: PTT is held for 1 wordspace plus 8 dit times after letter is finished
- 5) **Hang mode is now independent of tail delay:** Hang Time applies only to CW sent by paddle. Tail delay applies only to CW sent by the host or by standalone message. It is no longer necessary to disable Hang Time setting controls in the GUI when Tail is set to a non-zero value. This is because the settings are independent now. (Side note: A long Tail time can be truncated early by appending a 'PTT off' buffered command /U0 to the message stream)
- 6) **Letterspace adjustment:** New capability added for both host and standalone modes.

In **Host Mode** it is implemented as an ADMIN command, 0x15, with a single parameter calling out a letterspace scaling factor between 0 and 15. This adjustment specifies additional letterspace added in 2% increments from 0 through 30%.

In **Standalone Mode**, letterspace is adjusted using the I command followed by a value between 0 and 15 which represents an increase in letterspace of $\langle \text{value} \rangle * 2$ percent. For example a value of 4 will increase letter space by $4 \times 2 = 8\%$. In addition there is an embedded command, also I, which allows letterspace adjustment to be performed on a range of letters in a message. For example this message:

CQ CQ de /I06K1EL/I00 K sends K1EL with 12% added letterspace to improve readability.

Standalone letterspace setting is stored in byte 0xF of the EEPROM image. The mapping of this register is as shown.

Bit7-Bit4	Bit3	Bit2	Bit1	Bit0
Letter space	Enable 0/9 Cut	Spare	Enable Paddle Status	Spare

- 7) **New ADMIN commands summary:**

ADMIN CMD	Function	Parameter
0x15	Set Letterspace	Value 0-15
0x16	Reserved	
0x17	Set 1200 Baud	none
0x18	Set 9600 Baud	none
0x19	Reserved	