

# Quartzmite V2 Operating Manual

## Controlling the radio

If push-button 1 or 2 are pressed and released then the currently selected message for that button is sent. A message being sent can be stopped by holding the Dit paddle closed.

If push-button 1 is pressed and held, the keyer will respond after about two seconds with the letter **R**. This means that the keyer is ready to accept a command, you simply enter a command letter in Morse on the paddles and the command will be executed. Some commands have sub-menus that are used to further specify a configuration change, see below. All commands provide some sort of feedback to tell you if the command was understood and executed properly. If an illegal command is entered the keyer will respond with a question mark.

If the Dah input is closed at Powerup then the keyer enters 'straight key' mode. This is usually accomplished by inserting a mono-jack into the paddle socket. The buttons still work for sending messages but commands can NOT be entered. A message being sent can be stopped by holding the key down.

If the Dit input is closed at Powerup then the keyer sends the firmware version number as 'Qx.x' instead of the usual 'R'.

## Command Summary

- A** Adjust the Tx/Rx Frequency Offset
- C** Load callsign memory
- D** Respond with contents of user message memory
- E** Exchange (flip) the Tx and Rx frequencies.
- F** Adjust inter-letter (Farnsworth) spacing
- I** Toggle Iambic mode A and B
- L** Load user message memory
- M** Change the current message for PB1
- N** Change the current message for PB2
- P** Preserve (save) the current user setup
- S** Set the CW speed
- T** Tune mode
- U** Toggle autospacing
- W** Respond with current CW speed in WPM
- X** Exchange paddles
- Z** Zap (Restore) to default settings

## Detailed Command Descriptions

- A** This command is used to set/calibrate the Tx/Rx frequency offset (shift). Tapping the DAH paddle decrements the shift, tapping the DIT paddle increases the shift. Pressing button 1 exits the command.
- C** This command is used to load the callsign memory. After you issue the **C** command the keyer will respond with a single dit. This is the prompt to enter the first character of the callsign. When that letter has been accepted the keyer will send another dit and you can enter the next letter. This will continue until either 10 characters have been entered or you enter a period. To signal that loading mode is complete the letter **K** will be sent by the keyer.
- D** This command is used to check the contents of the user message memory. The user message will be played without keying the transmitter.
- E** Exchange (flip) the Tx and Rx frequencies. This can make the received signal tone lower meaning you are closer to the other stations frequency.
- F** This command is used to add extra (Farnsworth) spacing between characters. After the command is entered the keyer will wait for a single number from 0 to 9 to be entered. The value is the number of extra 'dit' times to be added between letters. The default is zero.
- I** Toggle between Iambic mode A and B. In either iambic mode alternating dits and dahs are sent while both paddles are held closed. In mode B an extra alternate dit or dah is sent after both paddles are released. An **A** or **B** is sent in response to this command to indicate the new mode.
- L** This command is used to load the user message memory. It works exactly like the **C** command with the exception that up to 20 characters can be entered. If you want to enter a word space, simply wait for two dits before entering the next character.

**M** This command is used to change/set the current message for button 1. The keyer will respond with a menu of six choices. These are presented as a list of short message identifiers separated by short pauses.

The message identifiers are:

CQ	Short CQ message:	CQ CQ CQ DE <call> <call> K
CS	Callsign:	<call>
CQL	Long CQ:	CQ CQ CQ DE <call> <call> CQ CQ CQ DE <call> <call> K
DX	CQ DX Message:	CQ DX CQ DX DE <call> <call> K
CQC	Custom msg plus call:	<User Message memory> DE <call> <call> K
MSG	User Message Memory:	<User Message memory>

The menu selections will be repeated in order until you press a paddle to select one.

**N** This command is used to change/set the current message for button 2. It operates in the same manner as the **M** command.

**P** Preserve (Save) the user configuration, message and callsign to non-volatile memory so that they are available at power up. Note that the Tx/Rx flip state is not saved.

**S** Set the CW speed. The keyer will respond with a dit. Send the first digit of the speed. The keyer will again respond with a dit. Send the second digit of the speed. The keyer will respond with an **R** and change the speed. If the input is unrecognised or out of range then a question mark will be sent. The cut numbers **A** for one and **T** for zero are recognised.

**T** Tune mode, the transmitter is keyed continuously until either paddle is pressed.

**U** Toggle autospace mode. When autospace is enabled the keyer will force the proper inter-letter spacing. An **A** will be sent when changing to autospace mode and an **N** when changing to normal mode.

**W** This command responds with the current CW speed in WPM.

**X** Exchange Paddle Inputs (dit and dah) to accommodate left handed operators.

**Z** Zap (restore) the keyer to default settings. The callsign and user message are **not** affected. Note that the Zap command does NOT do a Preserve.

Speed 13wpm  
Iambic Mode B  
Farnsworth spacing off (0)  
Autospace off  
Paddles not swapped  
Tx/Rx not flipped  
Short CQ message selected for button 1  
Callsign message selected for button 2