

### Keyboard Hot Keys

<b>F1 to F7</b>	Play Macros
<b>Ctrl-Fn</b>	Record Macros. Enter keystrokes. (Ctrl-Z to conclude entry.)
<b>Alt-Fn</b>	Delete Macro associated with Fn.
<b>F8</b>	Toggle TUNE mode on/off. Accessible only in RX or TX. (Not in Setup, or Macro Recording.)
<b>Shft-F9</b>	Turn on Beacon Mode. 'BCN' displayed.
<b>Alt-F9</b>	Turn off Beacon Mode.
<b>Alt-K</b>	Insert counter in Beacon Mode.
<b>F10</b>	Toggle between RX and TX. (Not in Setup, or Macro Recording)
<b>Ctrl-F11</b>	Display "MyCall" from EEPROM.
<b>F12</b>	Toggle on/off a display of modem's current settings.
<b>Ctrl-M</b>	Record "MyCall" into EEPROM. (Ctrl-Z to conclude entry.)
<b>Ctrl-T</b>	Record "TheirCall" into RAM. (Ctrl-Z to conclude entry.)
<b>Alt-M</b>	Insert "MyCall" into a Macro.
<b>Alt-T</b>	Insert "TheirCall" into a Macro.
<b>Ctrl-F</b>	Save the current frequency into EEPROM so that it can be restored at the next power-up.
<b>Alt-F</b>	Retrieve the saved freq and makes it the current freq.
<b>Ctrl-Tab</b>	Display the current frequency (audio)
<b>Ctrl-A</b>	Enable AFC
<b>Alt-A</b>	Disable AFC
<b>PgUp</b>	Increase input gain (PGA)
<b>PgDn</b>	Decrease input gain (PGA)
<b>Ctrl-L</b>	Clear the text area of the LCD
<b>Ctrl-K</b>	Clear the keyboard buffer. While receiving, keystrokes are not displayed—this allows clearing the buffer, so that call sign may be entered, or re-entered in case you think that you have entered the wrong call sign.
<b>Ctrl-B</b>	Clears the internal buffers
<b>Ctrl-Q</b>	Inserts a TX-OFF control character in the TX buffer, or Macro.
<b>Ctrl-S</b>	Insert a TX-ON control character in the TX buffer, or Macro
<b>Ctrl-O</b>	Toggles the display backlight on and off.
<b>Ctrl-U</b>	Toggles REC mode on/off for recording text to USB drive.
<b>Ctrl-N</b>	Enter filename to be used for recording text to USB drive.
<b>Ctrl-I</b>	Enter free-form text to be recorded to USB drive.
<b>Ctrl-R</b>	Reverse the frequencies of Mark and Space in RTTY mode
<b>Ctrl-C</b>	Toggle FIGS in RTTY mode
<b>Ctrl-D</b>	Enter Date. (Ctrl-Z to conclude entry.)
<b>Alt-D</b>	Enter Time. (Ctrl-Z to conclude entry.)
<b>Ctrl-Tab</b>	Display current freq
<b>End</b>	Acquire
<b>Pg-Up</b>	Increase PGA Gain
<b>Pg-Dn</b>	Decrease PGA Gain
<b>Home</b>	Reset Entry (CANCEL)
<b>ESC</b>	Toggle CW Side Tone (Tx or Rx)

(See **HOT KEY ASSIGNMENTS** for complete listing of all commands)

### Feature Addition Summary

- 1) Upload & Download Config**  
Ability to write (upload) the modem's settings and macro text strings to the USB flash memory stick for editing on PC, and then transfer (download) the edited config.txt file back to the modem.
- 2) USB Add-On card support**  
Makes the NUE-PSK Digital Modem more useful with ability to record QSO text (Rx and Tx) to USB flash memory stick for archival and remote printing. Use requires v1.33 (or later) software. USB card fits into existing modem enclosure with minimal mods; replacement bottom chassis available with pre-drilled holes for the USB connectors.
- 3) USB-specific keyboard hot keys added:** Ctrl-U, Ctrl-N, Ctrl-I
- 4) Text entry made more intuitive and consistent ...**
  - keystrokes made visible for all commands
  - specific keyboard hot keys entered before text
  - all text entry concluded with Ctrl-Z
  - text entry beyond buffer limits sounds the beeper
- 5) Beacon Mode has been added to allow repetitive automatic transmissions** to be made for experimental far-field measurement tests. Able to insert a counter in Beacon macro 7.
- 6) RTTY mode supported (transmit and receive).**
  - Ctrl-R reverses the frequency order of Mark and Space
  - Operate transceiver in USB mode. Press Ctrl-R if received signal not being immediately decoded at the cursors.
- 7) RTCC Supported (on optional USB card).**
- 8) CW Mode Supported ...** See CW-related commands shown in bold on the Hot Key Map on page 2.
- 9) Keyer Mode, CW Practice Mode, CW Direct Mode added**

### Example Usage of Keyboard Hot Keys

- Record MyCall to EEPROM ...  
*Ctrl-M n2apb Ctrl-Z*
- Record CQ sequence into F1 macro ...  
*Ctrl-F1 Ctrl-S cq cq cq de Alt-M Ctrl-Q Ctrl-Z*  
Play the macro by pressing F1 and see ...  
*Tx comes on, "cq cq cq de n2apb", Tx turns off*

### USB-Related Hot Keys:

<b>Ctrl-U:</b>	Toggle REC mode on/off. (REC displayed on right edge of display.) REC mode is aborted if no flash device present in connector. If no USB card detected, the modem's piezo is beeped after 5 seconds and REC mode is aborted.
<b>Ctrl-N:</b>	Enter name for USB file to be recorded. Ctrl-Z to conclude entry. Standard 8.3 file names accepted. (E.g., "FD2008-2.txt")
<b>Ctrl-I:</b>	Insert text into recording file. Ctrl-Z to conclude entry. The USB file must already be open (Ctrl-U) for this to work. The recording file remains open for additional Rx or Tx text, until Ctrl-U pressed again to close the recording file.

### Spectrum Cursor Tuning Rates:

<b>Left:</b> 1x: Left Arrow	<b>Right:</b> 1x: Right Arrow
2x: Down Arrow	2x: Up Arrow
5x: ALT + Left Arrow	5x: ALT+ Right Arrow
10x: ALT + Down Arrow	10x: ALT + Up Arrow

### Config Menu:

**Mode:** BPSK, QPSK, QPSK/R, RTTY, CW, CW Direct, CW Practice

**Squelch Threshold:** 25, 50

**CWID:** On, Off

**PGA Gain:** x1, x5, x16, x32

**Tune Rate:** Normal, Fast

**Battery Voltage**

**TX Audio Level**

Save Config  
Beacon Interval  
PC Bootload  
Flash Bootload  
Import Config  
Export Config  
RTCC Display  
Date Format  
Keyer Mode  
CW Paddle Reverse  
Exit

### Example Usage of Recording to USB Device

- Power up modem (flash mem device not inserted)
- Enter filename for file to be recorded ...  
*Ctrl-N FieldDay.txt Ctrl-Z*
- Plug in flash device, turn on REC mode to begin recording  
*Ctrl-U*  
and see the USB LED blink fast.
- Insert block of free form text to Flash filename ...  
*Ctrl-I Field Day 2008 QSO recordings Ctrl-Z*
- Tune around and find a station to call
- Enter Tx mode per usual (F10) to call. Entered text is recorded to USB filename.
- Enter Rx mode per usual (F10) to receive. Receive text is recorded to USB filename.
- Insert free form text to USB file ...  
*Ctrl-I Time ending QSO is 2130 hrs. Ctrl-Z*
- Close USB file recording session ...  
*Ctrl-U*  
and see the USB LED stop blinking and go solid on.
- Remove Flash memory device for remote viewing, archival or printing.

For further information, including a full Operating Manual, visit [www.nue-psk.com](http://www.nue-psk.com)

An active discussion group is maintained on Yahoo Groups in the NUE-PSK section. Visit <http://groups.yahoo.com> to get started.

In case of questions or technical problems, please contact [support@nue-psk.com](mailto:support@nue-psk.com)

# Command Reference Sheet

## HOT KEY MAP

KEY	---	Ctrl-	Alt-	Shift-
A		Enable AFC	Disable AFC	
B	CW <u>Goertzel</u> Bandwidth	Clear internal buffers		
C	CW Char SPACE fence	Toggle RTTY FIGS		
D	Tweak Down	Enter date	Enter Time	
E				
F	-	Save <u>freg</u> in EEPROM	Retrieve saved <u>freg</u>	
G	CW <u>Goertzel</u> threshold			
H	Reset Entry (CANCEL, DLE only)			
I		Enter text to be <u>REC'd</u>		
J				
K	Toggle <u>Tx</u> mode ON	Clear keyboard buffer	Insert beacon count	
L		Clear text display		
M		Enter My Call	Insert My Call	
N		Enter REC file name		
O		Toggle back light		
P		<i>Keyboard to <u>Tx</u> buffer</i>		
Q		Insert <u>Tx</u> OFF in macro		
R		Reverse RTTY Mark & Space		
S	Serial Number	Insert <u>Tx</u> ON in macro	Insert Serial No.	
T	CW <u>Goertzel</u> threshold	Enter Their Call	Insert Their Call	
U	Tweak Up	Toggle REC mode		
V				
W	CW Word SPACE fence			
X	Serial Number/Their Call		Insert Serial No.	
Y				
Z	CW Skew count	Input string terminator		
F1	Play macro 1	Record macro 1	Delete macro 1	
F2	Play macro 2	Record macro 2	Delete macro 2	
F3	Play macro 3	Record macro 3	Delete macro 3	
F4	Play macro 4	Record macro 4	Delete macro 4	
F5	Play macro 5	Record macro 5	Delete macro 5	
F6	Play macro 6	Record macro 6	Delete macro 6	
F7	Play macro 7	Record macro 7	Delete macro 7	
F8	Toggle TUNE mode			
F9	<u>Save Macro</u> (0x1A)	Beacon ON	Beacon OFF	Beacon ON
F10	Toggle Rx & <u>Tx</u>			
F11	Display My Call			
F12	Toggle settings display			
Tab		Display current <u>freg</u>		
<u>Pg-Up</u>	Increase PGA gain			
<u>Pg-Dn</u>	Decrease PGA gain			
End	Acquire			
Home	Reset Entry (CANCEL)			
L-Arrow	Tune down x 1		Tune down x 5	
R-Arrow	Tune up x 1		Tune up x 5	
D-Arrow	Tune down x 2		Tune down x 10	
U-Arrow	Tune up x 2		Tune up x 10	
ESC	Toggle CW Side Tone (TX or RX)			