

**K3 Mini-Manual Updates  
for compatibility with  
Elecraft Firmware Revisions**

The Nifty K3 Mini-Manual is updated as Elecraft makes new firmware releases. The version of firmware a Mini-Manual was released at is shown on the back cover of the guide.

When purchasing the K3 Mini-Manual from our web page, the firmware version that the Mini-Manual is currently up to (the version of the one that will ship) is shown above the “Add to Your shopping Cart” button.

This document identifies the changes that have been made to the K3 Mini-Manual for compatibility with various K3 firmware releases, and can be used to augment whatever version of the Nifty K3 Mini-Manual you have.

If desired, you can either print or save this .pdf document to your computer.

In addition to this update summary sheet, a reduced cost copy of the latest K3 Mini-Manual can be requested by mailing in whatever version of K3 Mini-manual you have and including a check, cash or money order for \$14 to cover the cost of the manual and shipping and handling. If you prefer to pay using your credit card, please include your phone number and we will call to get your credit card information. Be sure to include the address of where you want us to ship your new manual.

Before ordering an updated version of the manual you may want to review the changes to see how many actually affect the modes of operation you normally use. For those that affect your operation, you can print this summary and make notations in your guide. After accumulating a number of these, you may later choose to order the latest Mini-manual with all the changes incorporated.

It is our intent to continue updating the K3 Mini-manual as Elecraft makes firmware and other improvements to this very excellent transceiver.

Thank You,

Bernie Lafreniere, N6FN

## **Mini-Manual Updates by K3 Firmware Revision**

**MCU 3.97** and **DSP 2.58** firmware released by Elecraft on May 9, 2010.

The above K3 firmware revision incorporated a few performance improvements and added a new feature, which resulted in the following Mini-Manual change.

### **Page 8**

Added the following to the **Short Duration Impulse / Ignition Noise Blanking** procedure:  
“The odd-numbered DSP NB levels ( **-1, -3, -5**, etc) use a different algorithm than even numbered ones ( **-2, -4, -6**, etc). Select the optimum algorithm and the lowest setting that does the job.”

---

**MCU 3.94** and **DSP 2.54** firmware release by Elecraft on April 17, 2010.

The above K3 firmware revision fixed a few minor problems and added a few new features. Some of these updates resulted in the following Mini-Manual changes.

### **Page 13**

Added notes to the **Receive Audio Equalization (EQ)** procedure on page 13 to state that CW and Voice modes Receive Equalization parameters are now independently set.

### **Page 13**

Added notes and revised the **Transmit Audio Equalization (EQ)** procedure on page 13 to state that the SSB mode Voice modes Receive Equalization parameters can now be independently set from AM/FM/ESSB modes equalization.

### **Page 16**

Revised the 1750 Hz Euro Tone generation information / procedure on page 16.

---

**MCU 3.76** and **MCU 3.77** and **DSP 2.52** and **DSP 2.53** firmware releases by Elecraft on Jan 23 and Feb 27 of 2010.

The above K3 firmware revisions fixed a few minor problems and added a few new features. Some of these updates resulted in the following Mini-Manual changes.

### **Page 15**

Added the following note to the **Recalling (or Clearing) a Memory Channel** procedure:  
① By tapping [1] in **CONFIG MEM 0~9**, recall of mem channels can be delayed until you tap [M▶V] a second time. Useful for external gear that switches when changing bands.

### **Page 13**

Added the following procedure to page 13:

#### **Erasing Message Buffer Memories**

1. To erase a message buffer, tap [REC], select the buffer [M1] ~ [M4], then tap [CLR].

### **Page 16**

Added the following procedure to page 16:

#### **Monitoring Repeater Input Frequencies**

1. When an offset is being used, holding [REV] switches VFO to the input frequency.

---

**MCU 3.52** through **MCU 3.68** and **DSP 2.43** through **DSP 2.49** firmware releases by Elecraft between Oct 28<sup>th</sup> and Dec 12<sup>th</sup>, 2009.

The above K3 firmware revisions fixed a few bugs and improved performance in several areas. Several of these updates resulted in the following Mini-Manual changes.

### **Page 14**

The note at the end of the Playing / Transmitting a Recorded Message procedure was modified as follows:

#### **Playing / Transmitting a Recorded Message**

- ① If required to meet external equipment switching requirements, you can manually assert [PTT] before starting the message transmission. Access the **CONFIG KDVR3** menu, and tap [1]. If **USE PTT** is selected, releasing PTT cancels playback; if **AUTOPTT** is selected releasing PTT does not cancel playback.

### **Page 14**

The AM procedure at bottom of page 14 was modified to read as follows:

#### **AM Operation**

1. Tap [MODE] as required to enable **AM** mode operation.
2. By holding [ALT] you can select between “synchronous” **AM-S** or the “normal” **AM** envelope detection methods. **AM-S** operations requires careful manual tuning to within +/-10 Hz of the carrier frequency.
3. If desired, Tap [CWT] to enable “VFO Tracking” of AM stations up to +/- 2.5 kHz (only avail on VFO A). Important: if using VFO Tracking, activate **SPLIT** mode so that your Tx frequency remains fixed. To reduce adjacent signal QRM try rotating [SHIFT] to select either **AMS-LSB** or **AMS-USB**.

### **Page 8**

The steps of the Notch Filtering procedure on page 8 was modified to read as follows:

#### **Notch Filtering, Minimizing Carriers and Heterodyne tones**

1. To enable/disable **AUTO** notch filtering in SSB, tap [**NTCH**]. The NTCH icon displays when enabled. The ◀▶ icon is displayed in **AUTO**. (AGC must be on.)
- 2a. Hold [**MANUAL**] to enable **MANUAL** notch filtering. (available in all modes)
- 2b. To adjust the manual notch frequency, while holding [**MANUAL**] adjust VFO-B.

### Page 10

The following note was added to the ATU procedure on page 10:

#### **Using the Antenna Tuner**

① SWR Tones: Second tone is a: **Lower Pitch** = Unknown SWR, ant may be shorted, **Equal Pitch** = SWR <= 2.0, **Med-high Pitch** = SWR <= 3.0, **High Pitch** = SWR > 3.0.

---

**MCU 3.41** through **MCU 3.41** and **DSP 2.37** through **DSP 2.37** firmware release by Elecraft between Oct 2<sup>nd</sup> and Oct 14<sup>th</sup>, 2009.

These revisions fixed a few bugs and improved performance in several areas. Several of the changes resulted in minor adjustments to the Mini-Manual as described below.

### Page 5

Added the following procedure to bottom of page 5.

#### **Adjusting the Per-mode Coarse Tuning Step Size and Step Rounding**

① If desired, **CONFIG VFO CRS** can be used to modify the default Coarse control tuning step sizes; which are settable by operating mode.

① Additionally, by Tapping [1] in the menu, rounding **RND=NO** or **YES** can be selected, which rounds the Coarse tuning VFO step size.

### Page 11

Deleted the following words from the end of Step 3 of the **Received CW Signal Tuning / Zero Beating** procedure.

“and also affects text decode threshold, page 12.”

### Page 12

Deleted the following note in Step 3 of the **Decoding received CW Text** procedure.

“**Note:** This setting also affects Auto-Spot sensitivity, page 11.”

### Page 16

Added the following to the end of Step 3 in the **Selecting Repeater Shift / Offset and Access Tone** procedure.

.... access tone, “which is sent for 500ms on each PTT.”

### Page 17

Added the following to the end of the first note in the **Setting up for Memory Channel Scanning (Hopping)** procedure.

① ....“, automatically loading repeater offsets and PL tones.”

**Page 4**

While not part of these Elecraft releases, the following was added to the bottom of page4.

**Creating and Using Front Panel Switch Macros:**

① If you are comfortable with writing macros, sequences of alpha commands that automate multiple switch operations can be created and assigned to the ten programmable front panel switches (**PF1**, **PF2**, **M1~M4** Tap and Hold). Macros are created and tested using the “K3 Utility.” Refer to pages 4 and 5 of the “K3 Programmer’s Reference” for full details and sample macros.

---

**MCU 3.30 and DSP 2.26** firmware release by Elecraft September 1, 2009.

This revision incorporated the following improvements, which affected the Mini-Manual.

**Page 14**

Added this note to the **Playing / Transmitting a Recorded Message** procedure.

① If required to meet external equipment switching requirements, you can manually assert [PTT] before starting the message transmission. To do this access the **CONFIG KPA3** menu, and tap [1] until you see **USE PTT**.

**Page 12**

Revised note and added a note to the **DSP Random Background Noise Reduction** procedure.

① The first part of the setting **Fn-x** selects the noise algorithm to be used: **F1 ~ F8**. The second number **x** controls the amount of noise reduction to be applied.

① **F1-x ~ F4-x** are typically adequate. For some applications **F5-x ~ F8-x**, which are similar, can be tried. They provide a “mixture” of processed and unprocessed audio. When **x** is 1, the mix is mostly unprocessed audio, when **x** is 4, its 100% processed.

---

**MCU 3.27 and DSP 2.25** firmware release by Elecraft August 26, 2009.

Improvements in performance included in this release did not affect operational procedures in the Mini-Manual. No updates to the manual were necessary.

---

**MCU 3.25 and DSP 2.21** firmware release by Elecraft August 22, 2009.

This revision incorporated a number of improvements and affected the CW Text Decode procedure as shown below.

**Page 12**

Revised the **Decoding Received CW Text** procedure on page 12 to read as shown below: The new additions are underlined.

1. Setup for CW, tuning to a desired signal as usual.
2. Hold [**TEXT DEC**] and select speed range **CW 5-40** or **CW 30-90** using VFO-B.  
① The other settings: **OFF** disables CW decoding, **WPM CHK** displays speed of received CW, and **TX ONLY** decodes your transmitted text only. Otherwise both RX and your TX CW are decoded.
3. While in decode setup, the **Threshold** setting is displayed on VFO-A. Adjust as required for reliable text decode. Settings around 4 to 7 seem to work well, try starting there. Adjust so the CWT bar blinks in sync with the received CW signal. **Note:** This setting also affects Auto-Spot sensitivity, page 11.

4. Once decode operation has been setup, you can optimize tuning by using the CWT spotting procedure on the facing page and by manually fine tuning the VFO.

5. Tap **[CWT]** to exit text-decode setup.

① Text decode operation can be improved by using narrow filtering and the other noise reduction and notching techniques to minimize signal interference.

---

**MCU 3.19 and DSP 2.17** firmware release by Elecraft June 14, 2009.

This revision incorporated a number of improvements and the following two items that affected operational instructions in the Mini-manual.

### **Page 12**

Added the following procedure to page 12:

#### **Enabling Automatic CW VFO Offset When Switching Between CW and SSB**

① Allows switching to CW mode from any other mode without having to re-tune the VFO to account for the CW sidetone pitch setting.

1. Access **CONFIG CW WGHT** and tap **[5]** on the keypad until you see **VFO OFS**.

### **Page 23**

Added the following procedure to page 23:

#### **Locking the PWR, MIC and CMP Power Related Control Settings**

① After configuring these settings, you might want to lock the controls to prevent inadvertent miss-adjustment, especially if the rig is being used by guest operators.

1. To lock these 3 controls, access **CONFIG PWR SET** and tap **[1]** on the keypad.

① When tapping a locked control knob, **LOCKED** and its setting are displayed.

---

**MCU 3.14 and DSP 2.15** firmware release by Elecraft May 9, 2009.

This firmware release as well as several others since April 1<sup>st</sup>, 2009 have incorporated several enhancements and bug fixes that did not affect operational procedures in the K3 Mini-manual

---

**MCU 3.04 & 3.06 and DSP 2.11 & 2.12** firmware releases by Elecraft on March 25<sup>th</sup> and April 1<sup>st</sup>, 2009.

These two releases incorporated a couple of bug fixes and performance improvements, which did not affect materially affect operational instructions in the Mini-manual except for the addition of a new “All-mode squelch” function.

### **Page 7**

Slightly modified the wording of the informational note near bottom of page 7.

① The **CONFIG AGC DCY** menu can select Soft or Normal decay times. When set to Soft, both slow and fast AGC will reduce in-band IMD by as much as 15~25 dB. Useful on multiple signal reception situations such as pileups.

### **Page 16**

Step 1 of the **RF Gain and Squelch Level Adjustment / Control Knob Assignment** procedure was amended to include the following note:

① As of MCU version 3.06, squelch operation can be enabled for all modes of operation, not just in FM. If you wish to enable squelch operation for all modes, Access **CONFIG SQ MAIN** and tap [1] until you see **ALL** displayed.

---

**MCU 3.03 and DSP 2.10** firmware released by Elecraft on March 17, 2009.

This revision incorporated a number of improvements and the following items that affected operational instructions in the Mini-manual.

### **Page 7**

Added the following to the bottom of page 7.

① The **CONFIG AGC DCY** menu can select Soft or Normal decay times. When set to ① Use the **CONFIG AGC DCY** menu to select Soft or Normal decay times. When set to Soft, both slow and fast AGC will reduce in-band IMD by as much as 15~25 dB. Useful on multiple signal reception situations such as pileups.

### **Page 12**

Added the following procedure to page 12

**AGC Slow Hold Time can Improve CW Copy on Multiple close Spaced Signals**

① To improve CW reception during pileups, Elecraft recommends setting **CONFIG AGC HLD** to about 0.3 to 1 second. Has no effect on AGC-F.

### **Page 10**

Step 1 of the **Using the Antenna Tuner** procedure was amended as shown below.

1. Remembered on a per-band / per antenna basis, the tuner can be enabled for **AUTO** or **BYPASS**ed operation by holding [ATU].

### **Page 21**

The following procedure was modified to read as follows:

**Enabling the Sub Receiver to Operate on a Different Band**

① If you wish to operate the sub-receiver on different bands than those selected on the main-receiver, access **CONFIG VFO IND** and set it to **YES**. When set to **YES**, tapping [BAND] only affects VFO-A, by first holding [BSET] and then tapping [BAND] it affects VFO-B.

**MCU 2.82 and DSP 2.00** firmware released by Elecraft on February 10, 2009.

This revision incorporated a number of bug fixes and improvements and the following items that affected operational instructions in the Mini-manual.

**Page 14**

Step 2 of the **Playing / Transmitting a Recorded Message** procedure was modified to add VOX as shown below:

2. To cancel the playback or transmission, tap [REC] or [PTT] or by initiating transmission via VOX. You can also tap your paddle, straight key or any front panel key except the [M1] ~ [M4] message buffer keys.

**Page 14**

The note about AM mode and compression on the last line of the page was changed to:

Ⓢ Note: As of firmware rev MCU 2.82, compression is available in AM mode.

**Page 19**

Step 9 of the **Receiving RTTY / FSK Signals** procedure was amended to add further clarification.

9. If you suspect the station being received may be operating "reverse", hold [ALT] to activate the K3's **REV** Data, which reverses both RX & TX tones in both AFSK-D and FSK-D modes.

Ⓢ See following page if you need to reverse only the FSK-D transmit polarity.

**Page 20**

The following procedure was added to bottom of page 20.

**AFSK-D Mode Transmit Signal Noise Filtering**

Ⓢ If you have reports of noise on your AFSK-D RTTY transmit signal, you can try eliminating it by enabling the AFSK transmit filter.

1. Set **CONFIG AFSK TX** to **FIL ON** to enable the transmit filter.

---

**MCU 2.80 and DSP 1.99** firmware released by Elecraft on Jan 25, 2009.

This revision incorporated a number of bug fixes and improvements that except for the one item below did not affect any of the operational instructions in the Mini-manual.

**Page 14**

Step 2 of the **Playing / Transmitting a Recorded Message** procedure was modified to add [PTT] as shown below:

2. To cancel the playback or transmission, tap [REC] or [PTT]. You can also tap your paddle, straight key or any front panel key except the [M1] ~ [M4] message buffer keys.

**MCU 2.78 and DSP 1.98** firmware released by Elecraft on Jan 6, 2009.

This revision incorporated some bug fixes and other improvements that did not affect any of the operational instructions in the Mini-manual.

---

**MCU 2.76 and DSP 1.98** firmware released by Elecraft on Dec 21, 2008.

**Page 21**

The following note was added to the **Sub-Receiver Controls** procedure.

① As of MCU version 2.76, the [PRE], [ATT] controls can be independently set for the sub-receiver. As usual, hold [BSET] and then press the desired control to change the sub-receivers preamp or attenuator settings

**Page 22**

The following note was added to the **Diversity Reception** procedure.

① If you need to change preamp gain or attenuation for the sub-receiver, hold [BSET] and use the [PRE], [ATT] controls as usual.

---

**MCU 2.73 and DSP 1.98** firmware released by Elecraft on December 11, 2008.

This release did not contain any changes that affect operational procedures of the Mini-manual.

---

**MCU 2.67 and DSP 1.96** firmware released by Elecraft on November 18, 2008.

**Page 10**

Step 3 of the **Selecting Sub-Receiver Antennas** procedure was revised as follows:

3. Hold [RX ANT] to switch the sub-receiver's antenna connection between the MAIN receiver's RF input (sharing the same antenna selected for the main), or the sub's **AUX RF** input (as specified in Step 1, above). (Alternatively, while in **B SET** mode, tapping [ANT] will also switch the sub's antenna connection.)

**Page 7**

The following note was added to the **Enabling and Setting AGC Response Time** procedure.

① To protect against sudden loud signals when operating with AGC off, you can set **CONFIG AF LIM** to limit the maximum audio level. Typical settings are from **17** to **23**, but some experimentation may be required.

**Page 7**

Step 1b. was added to the **Using Headphones and External Speakers with the Sub Receiver** procedure.

1b. Alternatively, if **CONFIG SUB AF** is set to **BALANCE**, then the [**SUB AF**] gain control becomes a Main / Sub audio balance control. With the control centered, both receivers are heard approximately equally. Rotating [**SUB AF**] to either side shifts the relative balance of the two signals. Many operators prefer this “single” control method of balancing two received signals. In this mode the main [**AF**] knob controls the volume of both receivers.

---

**MCU 2.63 and DSP 1.95** firmware released by Elecraft on November 4, 2008.

**MCU 2.58 and DSP 1.94** firmware released by Elecraft on October 28, 2008.

**MCU 2.57 and DSP 1.94** firmware released by Elecraft on October 24, 2008.

On November 10, 2008 the Nifty K3 Mini-manual was updated for the above two firmware releases. Because there was no more room in the Mini-manual to add additional procedures for these and future updates, **four additional pages were added to the Mini-manual**. With the extra room, explanations for a number of procedures, most notably in the Data Mode and the Sub-receiver sections, were expanded upon. As a result of these updates, **page numbers within the guide have changed** in this update.

---

① Note: As of May 14<sup>th</sup>, 2009 the record of changes made to the Mini-manual prior to the October 24<sup>th</sup>, 2008 revision have been deleted from this document. Email me if you need a copy of the changes made prior to this date. Bernie-N6FN  
email: [n6fn@niftyaccessories.com](mailto:n6fn@niftyaccessories.com)

---