Appendix D.   Main and Configuration Menus

Main Menu

Table D-1.   Main Menu.[70]

Main Menu	Default	Description[71]
AFX MD	**dELAy 5**	Choose the audio effects (AFX) ***dELAy 1 – 5*** (quasi-stereo) or ***bin*** (left/right phase shift). See Chapter 8.3, page 119. [bin]
ALARM	**OFF**	Set an alarm and auto power on time. Tap ☐1 to turn the alarm on and off, ☐2 to set the hours and ☐3 to set the minutes. See Chapter 2.7.2, page 27.
ATTEN	**N/A**	In a K3 this menu item will be N/A because the 5, 10 and 15 dB attenuator is available only on the K3 RF board. See Chapter 7.4.3, page 97.
ANTIVOX	**0**	Adjust immunity of the VOX circuit to avoid false triggering because of audio from the speaker or headphones. If you find that audio from the speaker or from your headphones is triggering the VOX, increase the **ANTIVOX** to reduce the problem. See Chapter 5.1, page 64.
LCD ADJ	**8**	Sets the LCD viewing angle and contrast. A higher number is useful when the radio is at or above eye level. See Chapter 2.7.3, page 27.
LCD BRT	**4**	LCD backlight brightness. Use ***dAy*** in bright sunshine, ***2*** to ***8*** for indoor lighting. See Chapter 2.7.3, page 27.
LED BRT	**4**	LED brightness relative to **LCD BRT**. When **LCD BRT** is ***dAy***, **LED BRT** is set to the maximum. See Chapter 2.7.3, page 27.
MIC+LIN	**OFF**	This control allows both the microphone and the LINE IN jack to be used for transmit audio. Both sources can be used when **MIC+LIN** is ***On*** and ⟨Menu⟩***:MIC SEL*** is ***FP*** or ***RP***. When this is the case, rotating ⟨MIC ∅⟩ sets the microphone gain. When **MIC SEL** is set to ***LINE IN,*** the **MIC+LIN** selection is overridden and rotating ⟨MIC ∅⟩ sets the Line In gain. **Caution:** You may choose to use **MIC+LIN On** when operating in a contest and using the computer to send CQ and reports using wave files. When the computer connected to LINE IN is transmitting, your microphone is live and anything you say during this time will be transmitted also. So watch your language! This can also be a problem when operating the digital modes where the computer is generating audio tones for the transmitted signal. If the K3 monitor level is high enough the microphone can pick it up and cause feedback. When in digital modes such as AFSK it is best to set **MIC+LIN OFF.** See Chapter 5.1, page 64 and Chapter 6.4, page 78.
MIC SEL	**FP**	You can select the front panel 8-pin MIC connector (**FP**), the rear panel 3.5 mm

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[70] When you are in a Main or Configuration menu, you may tap the ⟨DISP⟩ key to see a short explanation of the menu item and its default value.

[71] [Values] show KE7X choices when different than the default.

		MIC jack (**RP**), or a Line In signal from your computer (**LINE IN**). When **LINE IN** is selected, the audio from the USB Audio Codec is used unless a 3.5 mm plug is inserted into the LINE IN rear panel jack.
	.L	Tapping ☐1 toggles between **.L**ow and **.H**igh microphone gain range.
		Tapping ☐2 turns microphone **bIAS** on and off. See Appendix A for a list of microphones needing bias to be turned on (electret condenser mics).
	OFF	When you select **FP**, tapping ☐7 turns on or off a high-gain front panel microphone preamplifier. This is independent of the **.L**ow and **.H**igh microphone gain range activated by tapping ☐1 and is useful if you have a low output mic element. See Table 5-1, page 64 and Chapter 6.4, page 78.
MSG RPT	**6**	Set this for the message repeat interval in seconds (**0** to **255**). See Chapter 4.7, page 63 and Chapter 11.2.2, page 203.
RPT OFS	**0600**	Use VFO A to set the desired repeater offset in kHz. See Chapter 5.4, page 70.
RX EQ	**0 dB**	Choose CW or SSB mode. The VFO A display area will show eight audio bands. Tapping keys ☐1 – ☐8 and tuning VFO A adjusts the receiver's audio gain plus or minus 16 dB in one dB steps. As you rotate VFO A, the amount of gain or attenuation in dB is shown in the VFO B area. You can tap ☐CLR to set all bands to 0 dB. See Chapter 8.4, page 119.
TX EQ	**0 dB**	The VFO A display area will show eight bands. Tapping keys ☐1 – ☐8 and tuning VFO A adjusts the microphone gain plus or minus 16 dB. As you rotate VFO A, the amount of gain or attenuation in dB is shown in the VFO B area. You can tap ☐CLR to see all bands to 0 dB. If using ESSB, a separate set of equalization bands is used. The Main entry menu changes to **TX*EQ**. See Chapter 5.1, page 67. [-16, -6, 0, 0, 0, 0, 0, 0]
VOX GN	**0**	Adjusts the sensitivity of the VOX to match your microphone and voice. While speaking into your microphone in a normal voice, increase the **VOX GN** until the K3 transmits reliably. See Chapter 5.1, page 69.

Configuration Menu

Table D-2. Configuration Menu.

Config Menu	Default	Description[72]
2 TONE[T73]	OFF	Enables a 2-tone generator for LSB or USB transmit tests. Exit the menu and tap ⏹XMIT⏹ to transmit. One of the tone's amplitude is fixed; use the ⏹MIC ∅⏹ to change the other. See Chapter 9.6, page 161.
ADC REF[T]	5.00	This allows calibration of the voltage reference used to make various measurements. Disconnect anything connected to the ACC socket and activate the ▮CONFIG▮:*ADC REF* menu. Measure the voltage at pin 2 of the ACC socket using a digital multimeter. This must be done while the *ADC REF* parameter is displayed. The negative lead of the DMM is connected to the K3 chassis ground. Set the *ADC REF* to the voltage measured by the DMM. See page 28.
AF GAIN	HI	This sets the AF gain for both receivers *HI* or *LO*. See Chapter 2.7.3, page 27.
AF LIM	nor 30	This adjusts an audio output limiter. It can protect your ears if you operate with AGC Off. The range is from 0 to 30 where 30 is the highest level. Signals that exceed this will sound very distorted, reminding you to turn down the RF or AF gain controls. See Chapter 8.2.2, page 118. [20]
AFSK TX	FIL OFF	When this is *FIL On* a 400-Hz transmit audio filter is added to the AFSK RTTY signal to improve transmit signal-to-noise. See page 80.[FIL on]
AFV TIM[T]	1000	Sets the integration time for the AFV and dBV measurements in milliseconds. See Chapter 8.5, page 120.
AGC DCY	nor	This sets the AGC decay characteristic and applies to both fast and slow AGC; *nor* selects a linear decay; *SoFt* can reduce IMD and is useful in pileup conditions. See Chapter 8.2.2, page 113.
AGC-F	120	Sets the fast AGC decay rate. Higher numbers mean faster decay. This parameter can range from *80* to *200* where *80* gives approximately 150 ms for an S9 to S7 signal change (~13 dB) and *200* is about 60 ms/13 dB. See Chapter 8.2.2, page 113.
AGC HLD	0.00	This sets the slow AGC hold time. It specifies the number of seconds the AGC level is held after the signal drops. It, too, can reduce IMD and is useful in pileups. It can range from *0.00* to *2.00* seconds. See page 113.

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[72] [Values] show KE7X choices when different than the default.

[73] *T* indicates *TECH MODE* must be *On* for this menu item.

AGC PLS^T	**nor**	When set to **nor** , this allows the AGC to reject noise pulses and pass short signals like a CW dit. When it detects a noise pulse, the AGC attacks and then decays rapidly back to its previous level. See Chapter 8.2.2, page 113.
AGC-S^T	**20**	Sets the slow AGC decay rate. Higher numbers mean faster decay. **AGC-S** can range from **5** to **40** where **40** is the faster decay rate. K8ZOA has measured 290 ms/13 dB for **40** and 2,300 ms/13 dB for **5**.[74] See page 113.
AGC SLP^T	**12**	This allows you to control the slope of the AGC as shown in Figure 8-7. **SLP 000** gives the best signal discrimination in pileup situations. **SLP** can range from **000** to **015**. When **SLP** is **015** all signals above the threshold will sound about the same. See Chapter 8.2.2, page 113. [000]
AGC THR^T	**5**	This sets the threshold signal at which AGC becomes effective as shown in Figure 8-8. **THR** can range from **002** to **020**. See page 113. [12]
AUTOINF^T	**nor**	If set to **AUTO 1**, the K3 sends band data on the USB and serial port to be used by PC software applications and other hardware such as the SteppIR™ antennas. See Chapter 2.7.4, page 28.
BAT MIN	**11.0**	Low battery warning threshold; **11.0** is recommended by Elecraft. When the main DC supply voltage drops below this value, the **BAT LOW** message is flashed on the front panel display. See Chapter 2.7.4, page 28.
BND MAP	**In**	This allows you to remove one or more bands from the band map that is switched to when you use the ∨ BAND ∧ to select a band. The bands are still available if you use a memory recall, direct frequency entry, or computer commands. To add or remove a band from the band map, enter the **BND MAP** menu and cycle through the bands with ∨ BAND ∧. Rotate VFO A to place the band **In** or **Out**. See Chapter 2.7.4, page 28.
CW IAMB	**A**	This sets the iambic keying mode, A or B. Mode B is for operators used to squeeze keying, which inserts an extra dit or dah when the paddles are released. Mode A does not do this and is better for operators used to pressing one paddle at a time. Once you are used to one it is hard to use another. If you sit down at someone else's rig that uses one mode and you normally use another, you can change the mode to your keying style with this CONFIG menu item. See Chapter 4.2, page 52. [b]
CW PDL	**tiP=dot**	If you operate at someone else's station, you might bring your own paddle to operate CW. A "normal" paddle connection produces dits when the left paddle (dit-switch) is pressed and dahs when the right (dah-switch) is pressed. You may have your dit-switch connected to the tip or the ring connection on the stereo paddle plug. This menu item allows you to specify whether the tip connection should produce dits (**tiP** = **dot**) or dahs (**tiP** = **dASH**). See Chapter 4.2, page 52.
CW QRQ	**OFF**	When this parameter is turned **On**, the K3 will provide fast break-in at speeds

[74] See *Elecraft K3 Transceiver AGC Parameters and S-Meter Calibration*, Jack Smith, K8ZOA, http://www.cliftonlaboratories.com/. The Clifton Laboratories site has a wealth of information and actual measurements professionally done on the K3.

		up to 100 words per minute. A "+" icon appears on the display when QRQ is **On**. At the time of writing, you cannot use the DSP passband SHIFT ∅ , or turn on RIT, XIT, or SPLIT. You can still use split if you have the Sub receiver installed. Turn the Sub receiver on and use VFO B as the receive VFO. At the time this was written, QRQ CW will be automatically turned off if split, RIT or XIT is turned on. In future firmware revisions, a limited RIT may be available. See Chapter 4.2, page 52. **CW QRQ** mode is not needed to achieve high speed CW.
CW WGHT	*1.15*	The term "CW weight" normally refers to the ratio of the dah-to-dit time. A "normal" weight is 3:1, where the time for the dah is thrice the time for a dit. The **CW WGHT** control for the K3 adjusts the ratio of a dit-length to the space between successive dits and dahs from 0.9 to 1.25. To spread the dits and dahs out, set the weight to less than 1.0. A "normal" setting would be 1.0. See Chapter 4.2, page 54. [1.05]
	SSB –CW	Tapping the 1 key toggles between **SSB +CW**, which allows CW to be sent when in SSB mode and **SSB –CW**, which doesn't. The other station (operating SSB) will hear your signal at the tone sent by your sidetone pitch. See Chapter 4.2, page 52. [SSB +CW]
	'@'=STOP	Tapping the 2 key specifies how the '@' character, which can be embedded in remote control KY ("key") packets, should behave. The default, **'@'=STOP**, terminates the KY transmission. When **'@'='AC'** the @ character is translated into its Morse equivalent ("• — — • — •"). See page 54.
	NEW QSK	Tapping the 3 key selects **OLD QSK** or **NEW QSK**. **NEW QSK** reduces keying artifacts in the presence of QRM or QRN; **OLD QSK** mutes and unmutes the receiver slightly faster. See Chapter , page 54. [NEW QSK]
	VOX AUTOOFF	Tapping the 4 key selects **VOX nor** or **AUTOOFF**, which turns CW VOX off on power-up. This will allow you to avoid accidental keying with a PC but means you have to switch VOX back on by holding VOX. See page 54.
	VFO OFS	Tapping the 5 key selects automatic VFO offset when switching to CW from any other mode. The offset is the sidetone frequency that can be adjusted by holding the PITCH and tuning VFO A. **VFO nor** (the default) provides no offset. This is useful if you are carrying on a conversation in SSB and both stations wish to switch to CW. See Chapter 4.2, page 54.
DATE		Set the Real-time clock date in the format as selected by **DATE MD**. Tap 1 , 2 , and 3 and rotate VFO A to set the month, day, and year. See Chapter 2.7.2, page 27. 1 2 3
DATE MD	**US**	Select **US** (MM.DD.YY) or **EU** (DD.MM.YY) date formats. See page 27.
DDS FRQ[T]	**DDS Freq**	This allows you to troubleshoot the operation of the direct digital synthesizer (DDS). Rotate VFO A CW and CCW to check the range between the synthesizer being locked (**L**) to where it changes to unlocked (**U**). After you exit the menu the correct frequency is restored.
DIGOUT1	**OFF**	**DIGOUT1** is an open-drain output that can be programmed **ON** (pulled to ground) or **OFF** (floating). It can be programmed on a per-band, per-antenna

		basis. Maximum load current (**ON**) is 250 mA (sinking) and maximum load voltage (**OFF**) is 25 VDC (open circuit). See Chapter 10.10, page 186.
DUAL PB	**nor**	**APF** enables one of two audio peaking filters to be activated when DUAL PB is held; **nor** enables the normal dual passband filter. See Chapter 4.4, page 57. [APF]
EXT ALC^T	**OFF**	Tap ⬚1 Set to **ON** if you are using external ALC from your amplifier to control the transmit ALC on the K3. Elecraft strongly recommends that you do not use external ALC to control the K3. See page 187 and page 215.
FLx BW^{S75}	**2.70**	Tap ⬚1 - ⬚5 to set the roofing filter bandwidths in kHz. Tap ⬚7 to turn IIR (infinite impulse response) DSP filtering **IIR On** or **IIR OFF**. The default filter is FIR (finite impulse response). **IIR On** will give sharper filtering but with more ringing. The filters in both the Main and Sub receivers need to be configured. See Chapter 2.5.1, page 24 to see the configuration procedure using the K3 Utility program.
FLx FRQ^S	**0.00**	This allows you to compensate for any filter center frequency offset from the nominal 8.215 kHz IF frequency. The filters in both the Main and Sub receivers need to be configured. See Chapter 2.5.1, page 24 for the configuration procedure using the K3 Utility program.
FLx GN^S	**0 dB**	You can enter a gain value for each of the roofing filters to compensate for insertion loss. Elecraft recommends **0 dB** for wide filters, **2 dB** for 400 or 500 Hz filters, and **4 dB** for 200 or 250 Hz filters. The filters in both the Main and Sub receivers need to be configured. See Chapter 2.5.1, page 24 for the configuration procedure using the K3 Utility program.
FLx ON^S	**ON FL1**	This specifies which filter is available during receive for each mode. For example, in CW mode you will enable the narrower filters while in AM you might not. The filters in both the Main and Sub receivers need to be configured. See Chapter 2.5.1, page 24 for the configuration procedure using the K3 Utility program.
FLTX	**FL1**	This specifies which roofing filter is used during transmit. For SSB, CW and DATA, choose the filter location (**FL1 – FL5**) that has the 2.7 kHz or 2.8 kHz filter; for AM choose 6 kHz; for FM 12 kHz or higher (the FM filter must be in the **FL1** position). See Chapter 2.5.1, page 24 for the configuration procedure using the K3 Utility program.
FM DEV	**5.0**	FM deviation. Adjust with care so that you do not overdeviate your FM signal. Tapping ⬚1 allows the PL tone deviation to be adjusted from **0.3** to **0.6** kHz. The default is **0.36** kHz. See Chapter 5.4, page 70.
FM MODE	**On**	Rotate VFO A to turn FM mode on and off. The FM mode will be removed from the mode selections if this is set to **OFF**. See Chapter 5.4, page 70.
FP TEMP		Allows calibrating the front panel temperature sensor. See page 26.

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75 **S** indicates that this menu parameter may be set for the Sub receiver as well as the Main receiver.

FSK POL	**1**	Change polarity of FSK-D keying. **1** = normal, **0** = inverted. See page79.
FW REVS		Display the installed firmware versions. Rotate VFO A to display the MCU (**uC**), the main DSP (**d1**), the Sub receiver's DSP (**d2**), the flash memory parameters (**FL**) and the KDVR3 controller (**dr**). Tap 1 to see the LCD controller and RF board types. For the K3, you should see **VER B/2**, where **B** refers to the LCD controller type and **2** refers to the RF board type. Older types apply only to the K3.
KAT3		Tapping CLR clears stored L-C network values for the current band. See page 160.
	not inST	If you do not have an ATU installed, choose this.
	byP or Auto	You can enable or bypass the tuner with these choices. However, you do not have to go into the config menu because you toggle between these two settings by holding ATU.
	tESt L1 – L8 and **C1 – Ct**	Cycling through these tests each of the relays that switch inductance and capacitance. You should hear the relays clicking.
	LC SEt	This selection allows you to both read the values of L and C in the tuned network and to adjust them manually. This is very useful if you are building an external antenna tuner for an antenna. After you let the K3 tune for minimum SWR, you can read the values and then build the external tuner.
	KAT500N	Tapping the 1 key selects **KAT500N** or **KAT500Y**. When **KAT500Y** is selected, the K3 sends frequency information to the KAT500 automatic antenna tuner. [KAT500Y]
KBPF3[S]	**Not Inst**	Set to **nor** if the KBPF3 optional filter is installed. If the filter is installed in the Sub receiver, tap SUB to turn the Sub receiver on after entering the menu. With the KBPF3A installed, the full HF range from 0.1 to 30 MHz can be used. See Chapter 1.4.6, page 9.
KDVR3	**Not Inst**	Set to **nor** when the KDVR3 voice recorder option is installed. Exit and turn power off and then back on.
		Tap 1 to **USE PTT** for manual PTT operation during message transmission. Normally the DVR asserts the PTT (**AUTOPTT**). See page 199.

KIO3 **KIO3B**	**Nor**	**nor**	The BAND3–BAND0 outputs are encoded for HF ham bands. When a transverter band is selected, these outputs will be zero (zero volts). See Chapter 13.3, page 221.
		trn	The band decoder outputs are set to zero for the HF bands and coded for the transverter bands. See Chapter 13.3, page 221.
		HF-trn	The best of both worlds occurs. The HF ham bands output their codes and the transverter bands theirs.
			If a KIO3B is installed but the menu entry name is **KIO3** (without the **B**), then the K3 has not detected the KIO3B module and the USB and RS232 ports will not function. Try turning the power off/on. If the problem persists, contact Elecraft. [HF-trn]

KNB3[S]		This menu item was removed because you cannot use the K3 without the noise blanker.	
KPA3	**not inSt**	**PA nor**	KPA3A installed. See Chapter 9.4, page 155.
		not inSt	KPA3A not installed.
		PAio On	Activates the KPAIO3 board and relay K1 if the KPA3A PA module is not installed.
		PAio tst	Switching to this should activate the K1 high-power bypass relay.
		PA byP	Choose this to bypass the 100 W PA if the PA is removed but the KPAIO3 board remains.
		PA FN1 – FN4 **PAio FN1 – FN4**	These test the four speeds of the PA cooling fans. You can also set the parameter to one of these to have the fan run constantly. The fans will go to a higher speed if the PA exceeds the set point temperature.
KRC2		Controls the KRC2 band decoder. Shows **ACC OFF** or **ACC1-3** if the KRC2 is detected or **– –** if the KRC2 is not detected. Two different six meter band codes are provided. Tap 1 to select **bnd6=b6**, which gives the band code 1010 when operating on six meters. Select **bnd6=b10** to select the band code 1001, which is the same code used for 10 meters. See Chapter 10.10, page 182. [bnd6=b6]	
KRX3	**Ant=Atu**	Sub receiver connected to the ATU. When this is selected, the Sub receiver can use the same antenna as the Main or whichever antenna (ANT 1/ANT 2) the Main is not using. See Chapter 8.7, page 123. [Ant=Atu]	
	Ant=bnc	Sub receiver connected to the AUX RF BNC. When this is chosen, the Sub receiver can use the same antenna as the Main or the antenna connected to the AUX RF BNC (often a separate receive antenna for diversity reception).	
KXV3 **KXV3B**	**Not Inst**	Set to **nor.** Then exit the menu and turn the power off and then back on. If a KXV3B is installed and the menu entry name is **KXV3** (without the **B**), tap 9 to change it and then exit the menu and turn the power off/on. If the K3 does not recognize the KXV3B the 20 dB PREAMP 2 will not work. To test the low power (0.10 to 1.5 mW) output via the XVTR IN/OUT jacks, set **KXV3** to **nor**, turn the power off and then back on and then change **KXV3** to **tESt**.	
LCD TST	**OFF**	Rotate VFO A to turn on all LCD elements.	
LIN OUT	**nor 010**	Set the LINE OUT level. This is normally a fixed-level, receive-only output. The Main receiver is on the left channel (tip) and the Sub receiver on the right (ring). Tapping 1 changes the **LIN OUT** to **=PHOnES**. In this mode the line outputs match the headphone outputs and the audio level is controlled by the AF/SUB gain controls. Both transmit and receive audio are available.	

		The LINE OUT jack is active even if CONFIG:*RS232* is set to *USB*. The USB port also provides line-out audio via the USB cable. See page 189. **Caution**. Setting *LIN OUT* above 10 may overdrive PC sound card inputs.
L-MIX-R	*A b*	Sets the left/right mix of the Main (A) and Sub (b) receiver audio. Choices are: See Chapter 8.7.2, page 126, and Chapter 11.1.2, page 196.
MACRO n	*Function*	A macro is a sequence of remote-control Programmer's Commands. It must be created and sent to the K3 with the K3 Utility program. To assign the macro to a programmable function key, tap `1` – `8` to select the macro and then hold PF1 or PF2 or tap M1 – M4, or hold M1 – M4 to assign the macro. See Chapter 11.1.2, page 195.
MEM 0-9	*nor*	If set to *BAND SEL*, quick memories 0 – 9 act as band select memories. After programming a quick memory, selecting it changes you to the last frequency used on that band. See 3.8, page 40. When you use VFO A to recall general purpose memories 00 – 99, the frequency is displayed as soon as VFO A stops turning. By tapping `1` and selecting *M>V DLY*, the frequency is not displayed until the M→V key is tapped. See Chapter 3.8, page 40.
MIC BTN	*OFF*	When set to *ON*, a microphone with UP and DOWN buttons will tune the VFO up or down. Tapping the UP or DOWN button will move the VFO up or down one step. Holding UP or DOWN will move the VFO continuously. If the VFO moves continuously without holding the buttons, the mic is not compatible with the K3 circuits and CONFIG:*MIC BTN* should be set to *OFF*.
NB SAVE	*no*	When set to *yES*, the on/off state of the DSP and IF noise blankers are saved for each band (per-band). The settings for the noise blankers are saved for each band even if *NB SAVE* is *no*.

Table within L-MIX-R row:

L-MIX-R	**Left Channel**	**Right Channel**
A b	Just Main	Just Sub
A Ab	Just Main	Mix Main and Sub
Ab b	Mix of Main and Sub	Just Sub
Ab Ab	Mix of Main and Sub	Mix of Main and Sub
Ab A	Mix of Main and Sub	Just Main
b Ab	Just Sub	Mix of Main and Sub
b b	Just Sub	Just Sub
b A	Just Sub	Just Main
A A	Just Main	Just Main

PA TEMP		This menu item allows you to calibrate the PA temperature sensor as described in Chapter 2. The temperature can be displayed in the Alternate VFO B display (Chapter 8.5, page 120.). An erroneous *HI TEMP* message may occur if the power supply voltage drops when you are operating high power from a battery supply. Tap the ⬚1 key to select *R OnLY* (to sense the temperature only when receiving) or *t And r* to sense when transmitting and receiving.
PB CTRL	**Shift =.05**	The pass band SHIFT control normally shifts in 50 Hz steps. It can be set to *0.05* or *0.01* kHz (50 Hz or 10 Hz) and is saved on a per-mode basis. When set to *0.01* kHz, the SHIFT range is reduced and the HI-CUT and LO-CUT functions are disabled. See Chapter 3.10, page 44.
PREAMP2	**OFF**	Only applies in a KXV3B equipped K3. Set to *ON* to enable PREAMP 2 on each of 12-, 10- or 6-meter bands as required. Tapping the PRE switch will switch between preamps OFF, the 10 dB preamp on (PRE icon on), and the 20 dB preamp on (PRE icon flashing) if *PREAMP2* is *ON*. See Chapter 7.4, page 94.
PTT-KEY	**OFF-OFF**	Allows selection of RTS or DTR lines (via the USB or RS232 ports) to activate PTT or key the K3. If a computer or other device asserts RTS or DTR *while* you're in this menu entry, the K3 will switch to TEST mode (zero output) as a precaution. The TX icon will flash as a reminder. To avoid this, make sure software has flow control and/or keying options turned OFF while you're changing the *PTT-KEY* selection. See Chapter 4.5, page 60.

OFF-OFF	No computer keying through the RS232 serial port (default)
rtS-OFF	RTS controls PTT, no CW keying
dtr-OFF	DTR controls PTT, no CW keying
OFF-rtS	No PTT, RTS controls CW keying
OFF-dtr	No PTT, DTR controls CW keying
rtS-dtr	RTS controls PTT, DTR controls CW keying
dtr-rtS	DTR controls PTT, RTS controls CW keying

PTT RLS	**20**	Provides a delay between release of PTT and the dropping of the carrier for AMTOR and PACTOR. It has no effect on CW, FSK D, or PSK D modes

PWR SET	**nor**	**nor**	The output power on each band follows the present setting of the PWR ∅ control.
		Per bAnd	The output power is saved on each band. For example, assume you have an amplifier for 10 m – 20 m that requires 20 watts for full-power output and another for 160 m that requires 100 watts. Setting the output power for 10 m – 20 m to 20 watts and for 160 m to 100 watts ensures you do not overdrive the 10 m – 20 m amp. You can, however, adjust the power when you are in a band.
		Tapping 1	**LOCK**s or **UNLOCK**s the power related controls MIC ∅, CMP ∅, and PWR ∅. This is useful if you have guest operators and you want to preserve mic gain, compression, and output power.
		If a KPA500 is connected to the K3 via the ACC cable, two sets of per-band power settings are saved: one for "barefoot" operation, one for use with the amp. When the amp is used, an asterisk appears as PWR is rotated (e.g. **30 W***). [**Per bAnd**]	
REF CAL[T]	**49380000**	Calibrates the reference oscillator. VFO A is used to set the reference oscillator frequency in Hz. Typically it will be 49380.000 +/- 1000 Hz. Refer to your *K3 Owner's Manual* for reference oscillator calibration details.

If a K3EXREF option is installed and connected to an external 10-MHz reference, tap 2 to enable it (**XREF IN**).

With a K3EXREF option installed and an external reference connected, the **REF CAL** parameter will be calibrated automatically about 10-15 seconds after power up. An asterisk will appear in the menu entry name (e.g. **REF*CAL**); the asterisk flashes as long as data are being received from the K3EXREF. Tapping 1 saves the automatically derived value as the default (manual) value. This is not required, but is useful if the external reference is ever disconnected. See Chapter 2.6, page 26. | |
RFI DET	**nor**	When **nor**, high RFI at the K3 antenna in receiver mode will generate the **HI RFI** warning. This occurs if the signal at the antenna exceeds about 1 to 2 watts. Set to **OFF** to disable.	
RIT CLR	**Undo oFF**	When **undo on**, tapping the RIT/XIT CLR alternates between **0.00** and the present RIT/XIT offset. When **undo oFF**, tapping CLR clears the RIT/XIT offset. See Table 3-5, page 36. [undo on]	
RS232	**4800 b**	Sets the serial communication rate in bits/sec. The choices are 4800, 9600, 19200, 38400 Baud. PC control of the K3 is done with RS232/P3 RJ45 jack or RS232 DE9 connector.	
	USB	This choice is only available in a KIO3B equipped K3. If this setting is used, then a single USB cable can be used between the KIO3B and a computer to provide remote control, digitized line-level audio in/out, and PTT/KEY. PC control can be done with either the RS232/P3 port or the USB port, not both.

When the USB port is used, the RS232/P3 port is set to 38400 Baud and | |

		mirrors transmissions on the USB port. This allows an external device, such as a SteppIR antenna controller to listen for frequency information.
SER NUM		Your K3 serial number. Cannot be changed.
SIG RMV[T]	**nor**	This starts a procedure to remove receiver birdies that can be heard with an antenna connected. See Chapter 8.12, page 152 for the complete procedure.
SMTR MD	**nor**	The K3 S-meter has relative and absolute modes. In relative mode (the default **nor**), the preamplifier and attenuator settings will affect the S-meter reading. If CONFIG:**SMTR MD** is set to **AbS**, S-meter readings will be constant whether or not the preamp or attenuator is on. See Chapter 14.12, page 252. [AbS]
SMTR OF	**024**	S-Meter offset. See S-Meter calibration procedure in page 26.
SMTR SC	**014**	S-Meter scale. See S-Meter calibration procedure in page 26.
SMTR PK	**OFF**	Set to **On** for a peak reading S-Meter. Not applicable in FM mode. [On]
SPKRS	**1**	If you use two external speakers, set this to **2**. This enables the binaural effects of AFX and allows the Main and Sub receivers to be heard in the left and right speakers as set by **SUB AF** and **L-MIX-R** menus. **DO NOT** set this to **2** if you have one speaker with a monaural plug because that can damage the right channel audio amplifier. To be safe, NEVER plug a monaural plug into a jack marked stereo on the K3. See page 190 for more details of the speaker output circuit and Appendix C, page 273 for a list of "safe" adapters.
SPKR+PH	**no**	Setting this to **yES** allows audio to be heard through the speaker when headphones are plugged into the front or rear panel PHONES jacks. Unlike the rear SPKRS jack, you may use monaural headphones, but you will need stereo headphones to take advantage of AFX effects and to listen to the Sub receiver in stereo. Table 8-8 and Table 8-9, page 129 show the audio choices for the various combinations of **SPKR** and **SPKR+PH**. The rear headphone jack was recently changed to a different type whose speaker-cutout switch logic is inverted from the original. This switch has two action polarities selected in the CONFIG:**SPKR+PH** menu that cut out the speaker. Tapping the ☐1 key toggles between **PH.R SW-** (inverted) and **PH.R SW+**. See Table 10-8, page 192.
SPLT SV	**no**	When **yES**, B SET, RIT and XIT on/off states are saved per-band. See Chapter 3.13, page 49. [yES]
SQ MAIN	**0**	Sets the Main receiver's squelch. Tapping ☐1 toggles between **SQL=ALL** and **SQL=FM** for all-mode or FM mode only squelch. See Chapter 3.12, page 48. [=Sub Pot]

	0 – 29	Sets Main squelch level where **0** is open squelch.
	=Sub Pot	The SUB RF/SQL (outer) knob controls the squelch for both Main and Sub. Both receivers' RF gain is controlled by the Main RF/SQL (inner) knob.

SQ SUB	**0**	Sets the Sub receiver's squelch **0 – 29**. If **SQ MAIN =Sub Pot**, then **SQ SUB =Sub Pot** also and both receiver's squelch are controlled by the SUB RF/SQL (outer) knob. Both receivers' RF gain is controlled by the Main RF/SQL (inner) knob. See Chapter 3.12, page 48. [**=Sub Pot**]
SUB AF	**nor**	When set to **nor**, the inside knob controls the Main AF and the outside knob the Sub AF. When set to **bALANCE**, the inside knob (Main) controls both Main and Sub audio level and the outside knob (Sub) controls the balance between the two. When the Sub knob is at 12 o'clock, the audio channels will be balanced. Fully counter-clockwise is full Main, clockwise is full Sub audio. See Chapter 8.7.2, page 126.
SW TEST^T	**OFF**	To turn on switch test, rotate VFO A to **SCN ADC**. When holding any switch, the scan row and column is displayed. Rotating any of the potentiometers shows their analog-to-digital converter readings. If SUB RF pot is mapped to main/squelch (see CONFIG:**SQ MAIN**), you must switch to FM mode to see the reading.
SW TONE	**OFF**	The K3 can provide audible feedback tones when you tap or hold most switches by setting **SW TONE On**. A low-to-high tone is generated when a switch function is turned on and high-to-low when turned off. After tuning the ATU, SWR <= 2:1 gives a normal tone, <= 3:1 a medium pitch tone, and over 3:1 a high pitch tone. If **RIT CLR** is **undo on**, tapping CLR a second time generates a different low-to-high tone. Some switches like REV and the M1 – M4 message playback keys do not generate tones so that they don't interfere with received or transmitted audio. See page 27. [On]
SYNC DT		When **SYNC DT** (sync data) is activated in either SSB or Data modes, T/R switching times are reduced to optimized for modes such as AMTOR and PacTOR. The –S icon turns on. **Do not use SYNC DT for normal SSB/Data communications**. You cannot change this within the CONFIG menu but you can assign it to a programmable function key (See Chapter 2.1.2, page 16). Also see CONFIG:**PTT RLS**.
TECH MD	**OFF**	This must be **On** to enable **TECH MODE** menu items. These are marked ^{T} in this list and in the text. See Chapter 2.1, page 15. Tapping 1 or 2 shows main or auxiliary DSP internal error information. Tap CLR to reset error information. **FFFF** indicates no error. [On]
TIME		Real-time clock. Tap 1, 2, and 3 to set the hours, minutes, and seconds. See Chapter 2.7.2, page 27.
TTY LTR		Performs a RTTY FIGS to LTRS shift when the text decoder is enabled in RTTY modes. This function cannot be changed in the menu. It must be assigned to a programmable function switch.

TUN PWR	**nor**	**nor**	When TUNE is held the power output follows the PWR⌀ knob.
		0.01 – 110	By turning VFO A you can set a fixed power level that overrides the current output power set by PWR⌀ when holding TUNE. This is useful if you have an external amplifier or antenna tuner. It allows you to tune these at a lower output power level. This power level is not the power used by the KAT3A tuner. That is set by the ATU and is either 5 or 10 watts. While TUNE is pressed you can change the output power with PWR⌀.
		See Chapter 9.4, page 155.	
TX ALC[T]	**On**	When set to **OFF**, internal and external ALC is disabled.	
TX DLY	**nor 008**	Sets the time delay in milliseconds from when the KEY OUT jack keys an external amplifier until the first RF is transmitted. Useful for amplifiers with slow relays. To minimize the loss of speed when operating QSK, use the lowest setting that will work with your amplifier. See page 215.	
TX DVR	**nor**	**nor**	When monitoring transmit audio, you hear both DVR and microphone audio at the MON level set by MON.
		Ind	The DVR and microphone monitor levels can be set independently. Hold MON when **DVR xx** is displayed, rotate MON to set its level. Hold MON again to display **MON** and set the monitor level for the microphone.
		See Chapter 11.2, page 199.	
TX ESSB	**OFF 3.0**	Tap 1 to turn ESSB **ON**. Tune VFO A to select the desired transmit bandwidth (**3.0** to **4.0** kHz). The + icon will turn on in the mode area.	
TX GATE	**OFF 0**	Tap 1 to turn the noise gate on and off. Use VFO A to set the threshold so that the noise, such as fan noise from an amplifier, is not transmitted but your normal voice is. See Chapter 5.1, page 68.	
TX INH[T]	**OFF**	If set to **LO=Inh** or **HI=Inh**, pin 7 in the ACC socket becomes an input that can inhibit the K3 transmitter. When **OFF**, pin 7 is an output that sources a logic high (+5 v) when the K3 is on. See Chapter 10.10, page 185.	
TX MON	**nor**	Normally (**nor**) the transmit monitoring you use to set up your microphone and compression setting includes a 20 millisecond delay. This is necessary to allow the processing to work. If you want to monitor your audio (in headphones) while transmitting, set this to **FASt**. There will then be no delay but you won't hear the effect of any audio processing. See Chapter 5.1, page 66. [FASt]	
TXGN	**00**	This shows the transmit gain constant for the present band and power setting. Rotate PWR⌀ to **0 – 12** watts; the display shows **TXGN LP nn** where **nn** is the low power gain constant. Set PWR⌀ **13 – 100** watts to display	

		TXGN HP nn.
		When on 80 meters and displaying high power, ***PR80*** is shown to indicate the preamp is in use on 80 meters. It can be turned off for troubleshooting by tapping PRE.
		If ***TX ALC*** is ***OFF***, the transmit gain parameter can be set manually for troubleshooting.
TXG VCE^T	***0.0 dB***	The K3 RF power meter may not show the same power on voice peaks as when you hold TUNE. ***TXG VCE***, can be adjusted between -1.5 dB to +1.5 dB to make the voice power peaks about the same as the TUNE power display.
		A good way to adjust your CONFIG:***TXG VCE*** value is to use an external peak-reading wattmeter. With this you can adjust your voice peaks to equal or remain below your desired output power level. See Chapter 5.1, page 69.
VCO MD		VFO Tuning Noise Reduction (Advanced): Tapping 1 in this menu entry alternates between ***SPI 1*** (default) and ***SPI 2***. The ***SPI 2*** setting can eliminate a weak "ticking" noise sometimes heard in the vicinity of 5, 28, or 50 MHz while rotating the VFO.
VFO B>A	***Function***	Transfer VFO B to VFO A (similar to A→B). To use this, you must assign it to a programmable function key.
VFO CRS	***Per Mode***	Sets the coarse tuning rate (10, 50, 100 kHz/turn) for each mode. This is similar to ***VFO FST*** but is activated when COARSE is held. See page 38.
VFO CTS	***200***	Sets the number of VFO encoder pulses (or counts) per turn of the knob. See Chapter 3.6, page 36.
VFO FST	***50***	Sets the VFO tuning rate in Hz/pulse (of the VFO encoder). It can be 50 or 20 and changes the tuning rate when RATE is tapped for 10 or 100 Hz tuning. Chapter 3.6, page 36.
VFO IND	***no***	When ***yES***, VFO A and VFO B can be set on two different bands. ∨ BAND ∧ changes only VFO A unless in B SET mode when VFO B is changed. VFO B can have a different mode than VFO A. You do not have to worry about transmitting on a different band if operating split because cross-band split operation is not allowed. See page 130. [yES]
VFO LNK	***OFF***	Set to ***yES*** to link VFO B to VFO A. Rotating VFO A will then move both VFOs. (**Note:** In diversity mode, VFO B is always controlled by VFO A; it is not necessary to turn ***VFO LNK*** on in this case.). See page 126.
VFO OFS	***OFF***	When ***On***, the RIT control can tune VFO A in frequency steps given by ***VFO CRS***. See Chapter 3.7, page 40.
WMTR^T	100	See page 26 for the K3 wattmeter calibration procedure.
XVn ADR	***trn0*** or ***INT. trn0***	Each of these can be assigned an address to be output on the BAND3 – BAND0 output pins in the K3 ACC socket. See Table 13-3, page 223 and Chapter 10.4, page 167 for more information about these outputs. The data on these pins can be used to select external transverters such as the Elecraft XV-series. ***trn1-trn9*** are used for external transverters and ***INT. trn1*** to ***INT.***

		trn9 for Elecraft internal transverters (K144XV). See page 221.
XVn IF	*28*	Select the IF (*7, 10, 14, 18, 21, 28,* and *50*) for the transverter. Use *28* for the K144XV internal two-meter transverter. See Chapter 13.3, page 221.
XVn ON	*no*	Set the parameter to *yES* to turn the selected transverter on. See page 221.
XVn OFS	*0.00*	An offset (-9.99 to +9.99 kHz) can be added to each of the nine transverter bands to compensate for errors in how the transverter is converting the VHF frequency to the IF. This allows you to have a K3 frequency display that is compensated for offsets in the transverter and thus shows the true frequency. If the present transverter band is assigned to the K144XV internal 2-m module (by setting *XVn ADR* to *INT. trn0-9*), the *XVn OFS* parameter will show either **144** or **146** at the left end of the display, depending on whether you have the VFO tuned to 144-145.999999 or 146-148 MHz. You can enter an offset for each of these band segments, which correspond to the 116 and 118 MHz crystals on the K144XV, respectively. (You must have the 2-m band selected before setting these parameters.) These offset values are normally set up at the factory and are also noted on a label on the K144XV module. If a K144RFLK module is also installed, the K144XV's 2-m frequency will be locked to the transceiver's 49.380-MHz reference. The *XVn OFS* parameters can be automatically calculated in this case. Tap 0 on the keypad in the *XVn OFS* menu entry until you see *REFLOCK* displayed. The *XVn OFS* parameter will then be locked to the *REF CAL* value, which you'll need to calibrate. Or, you can use an external reference and the K3EXREF option. See Chapter 13.3, page 221.
XVn PWR	*L .01*	Set the upper output power limit from the K3 to the transverter. *L x.xx* specifies the Low power level in milliwatts and sets the power delivered to the transverter through the KXV3B. *H x.x* sets the High power in watts delivered from the main antenna jack. You would use this when using another manufacturer's external transverter that requires more than milliwatts drive. For this, *XVn ADR* must be *trn0-9. L 1.00* is recommended for the K144XV internal transverter. You should set CONFIG:*PWR SET* to *Per bAnd* to save the last-used power setting for each band. See Chapter 13.3, page 221. When *XVn PWR* is Low, DIGOUT0 is pulled low when the transverter band is selected. Otherwise it is floating.
XVn RF	*144*	Set VFO A to the lower edge of the band for that transverter. Normally 144 will be set when you are using the internal K144XV transverter. You may, though, be using the K144XV as the IF for a transverter on a still higher band – a transverter transverting for another transverter! In this case, you can set the parameter to the lower edge of the higher band. For example, a 1296 MHz transverter can have as its input and output 144 MHz. For this you can set *XVn RF* to *1296.* When *XVn RF* is set to the bottom of the transverter's band, the K3 VFO will correctly display your operating frequency on that band. See Chapter 13.3, page 221.