

ELECRAFT K2 REVISION B COMPONENTS KIT

Rev. D, Jan. 13, 2004

This kit provides supplemental parts that can be used to build a revision A K2 as revision B. This applies if you purchased your K2 as revision A but have not yet started construction.

We have also included in this kit the parts for the PLL Upgrade, a modification which was added as of K2 serial number 3446. This dramatically improves the K2's synthesizer temperature stability.

How To Build Your Revision A K2 as Revision B

1. Print or purchase the latest K2 Owner's Manual (revision F or later). If you print your own from our web site, be sure to also print the latest errata sheet. Alternatively, you can purchase a bound copy of the manual, which will include the errata sheet.

NOTE: The manual that came with your revision A K2 kit can **not** be used to build the K2 at revision B.

2. In the new manual, make all of the corrections indicated on the new errata sheet. These changes must be noted in your manual before you begin construction, or your K2 will not function correctly.
3. Locate and discard the serial number label that came with your K2. (The label can be found in the inside back of the original manual that came with your K2 kit.) A new serial number, over 4000, is included in this revision B components kit. This will permanently identify your K2 as revision B. (We have already noted this as your new serial number in our records.)
4. In addition to the new manual, you'll need new firmware (revision 2.04 or later). When you order the latest K2 firmware, you'll receive both a new main microcontroller (Control board, U6, PIC18C452) and the I/O controller (RF board, U1, PIC16F872).
5. Locate the old programmed main microcontroller (PIC18C452) in the Control board bag, and remove it. Also locate the old I/O controller (PIC16F872, in the RF board bag). You will not need these, but you may wish to save them as backups. In any case they should be stored so you won't accidentally install them rather than the new firmware.
6. Locate the old resistor tapes for the RF board and Control board (E850071 and E850073) and save the resistors for your parts collection. You will not need these, since new tapes for these boards are supplied in the kit. But keep the original Front Panel board resistor tape (E850077).
7. Locate the four original printed circuit boards (revision A) that came with your K2 kit (Front Panel, Control, RF, and switch-spacing tool). You will not need these, so store them somewhere to avoid confusing them with the new PC board set (revision B) that comes with this kit.

NOTE: Since you won't be needing these revision A PC boards, we'd appreciate having you mail them back to us. Builders do occasionally damage their boards, and we're low on revision A replacements. You'll receive a \$10 credit toward future purchases. If you return them to us, please use the same packaging that we used to mail you the rev B boards and parts.

8. Do an inventory of all components in this kit (starts on next page).
9. Build the K2 using the new manual (rev F or later). The first step in this process is inventorying the entire kit. When you come to items that are missing from the revision A K2 parts bags, look for them in the bag supplied with this kit. No resistors should be missing, since we're providing you with the revision B resistor tapes.
10. Keep any extra parts that were left over from the revision A K2.

Revision B Components Kit -- Inventory

Unless otherwise noted, resistors are 1/4-watt, 5 %; capacitors are ceramic disc or monolithic. Component markings and color codes shown in parentheses. See K2 Owner's Manual for component illustrations.

<u>Part No.</u>	<u>QTY</u>	<u>Description</u>
E500119	1	82 k resistor, 1/4 w, 5% (gray-red-orange)
E500101	1	270 k resistor, 1/4 w, 5% (red-violet-yellow)
E500086	1	5.1 megohm resistor, 1/8W, 5% (green-brown-green)
E520011	1	50 k trimmer potentiometer ("503")
E530001	1	.001 μ F cap ("102")
E530009	2	.01 μ F cap ("103")
E530011	2	0.1 μ F cap ("104")
E530015	1	56 pF cap ("56" or "560")
E530007	1	68 pF cap ("68" or "680")
E530016	2	100 pF cap ("101")
E530025	1	.047 μ F cap ("473")
E530038	1	82 pF cap ("82" or "820")
E530043	1	330 pF cap ("331")
E530051	1	390 pF cap ("391")
E530053	1	680 pF cap ("680")
E530055	1	.0027 μ F cap ("272")
E530058	2	12 pF cap ("12" or "120")
E530012	1	22 μ F electrolytic cap
E530068	1	1 pF cap ("1")
E560002	3	1N4148 diode (small glass body)
E560006	2	MV209 varactor diode (2-lead TO-92 plastic package)
E560009	1	low-drop shottky power diode, 95SQ015
E560014	1	precision PIN diode, 5082-3081 (small glass body)
E580001	1	PN2222A transistor (3-lead TO-92 plastic package)
E620007	1	3 pin male connector, 0.1" spacing
E620055	1	2-pin shorting jumper
E680003	1	FT37-43 ferrite toroidal core (0.37" diameter)
E690013	1	100 uH subminiature RF choke (brown-black-brown); Do not confuse with 100-ohm resistor (E500010).
E690015	1	82 mH inductor (large, black, molded package)
E690018	1	Toroidal inductor, T44-7 core, 41 uH (pre-wound)
E700035	1	#4 nylon washer
E700074	1	alligator clip
E700075	1	banana plug, black
E700076	1	banana plug, red
E760010	2 ft	hookup wire, #24, black ins., stranded
E850071	1	Resistors (on tape) for Control board
E850073	1	Resistors (on tape) for RF board
E850089	3x3"	speaker grille cloth
E850138	1	PLL Upgrade Kit
E980002	2	cable tie, 3" long, white
E100079	1	switch spacing tool and RF Probe PCB, rev B
E100083	1	Front Panel PC board, Rev B
E100084	1	Control PC board, Rev B
E100086	1	RF PC board, Rev B