



# ELECRAFT

## K3S Frequently Asked Questions

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### K3S General Questions

**Q: What are the new features of the Elecraft K3S?**

A: The K3S is Elecraft's second-generation, software-defined superhet transceiver (SDR). We've upgraded nearly every subsystem, improving performance and adding many new features. Here's a quick overview:

New Features	Benefits
<b>Ultra-low-noise synthesizer</b>	Unequaled strong-signal receive performance; exceptional transmit signal purity.
<b>Second preamp (Preamp 2)</b>	<b>Built-in</b> equivalent of Elecraft's PR6-10 low-noise amplifier (LNA) for weak-signal work on 12, 10, and 6 m. <b>Preamp 2 is part of the KXV3B module (now included as a standard feature).</b> The KXV3B also provides RX antenna in/out jacks, transverter in/out jacks, and a buffered IF output for use with our P3 panadapter.
<b>Multiple attenuation levels</b>	Attenuation levels of 0, 5, 10, and 15 dB; selectable per-band.
<b>Dual computer ports (USB and RS232)</b>	In addition to the legacy RS232 port, the new USB port integrates computer remote control and line-level audio. This eliminates the need for a sound card or external converters and their associated cables. Supports Windows, Linux and Apple platforms.
<b>KAT3A option now includes bypass relay</b>	Lower loss on bands where matched antennas are used.
<b>Redesigned speaker amplifier</b>	Stereo speaker outputs now have lower total harmonic distortion (THD) for reduced listening fatigue.
<b>Fast transmit/receive switching</b>	High-accuracy CW transmit timing—even at high code speeds with SPLIT, RIT, and XIT in use.
<b>Extended coverage includes 630 and 2200 meter bands</b>	When used with the KBPF3A option, receiver covers 630 m (472 kHz), and 2200 m (137 kHz), tuning as low as 100 kHz. Transmit output of 0.5-1.0 mW on 630 m (for use with an external amplifier).
<b>Enhanced look and feel</b>	New LCD bezel; soft-touch VFO A knob with improved grip.



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**Q: What components have been changed for the K3S? Are they available for the K3?**

A: Nearly all internal modules have been upgraded for the K3S. Some of the modules that are compatible with the K3 are already available:

K3S Module	New Features	Available now?
KSYN3A	<ul style="list-style-type: none"> <li>• Very low close-in phase noise</li> <li>• Faster T/R switching</li> <li>• VFO tuning down to 100kHz (with KBPF3A)</li> </ul>	Yes Kits available for order now. Please order <a href="#">KSYN3AUPG</a>
KXV3B	<ul style="list-style-type: none"> <li>• Built-in low noise preamp for 12/10/6 m</li> </ul>	Yes Kits available for order now.
KAT3A	Includes true bypass relay for lower loss with well-matched antennas	Yes Kits available for order now.
KRX3A	Sub receiver now includes KSYN3A synthesizer.	Yes Kits available for order now.
KBPF3A	Redesigned filter extends Very Low Frequency (VLF) operation down to 100 kHz.	Yes Kits available for order now.
KIO3B	<ul style="list-style-type: none"> <li>• Adds direct USB connection</li> <li>• Eliminates need for PC soundcard and cables</li> <li>• RS232 connection remains supported; adapter cable included with K3S</li> </ul>	Yes Kits available for order now. Please order KIO3BUP

**Q: Will any other K3S modules or components be made available for K3 use?**

A: Yes. The following additional K3S modules and components are compatible with the K3, and will be offered once excess inventory is available for upgrade purposes:

K3S Module	New Features	When Available?
Main DSP board	Enhanced speaker amplifier with low-distortion pre-driver.	May be available later in 2016
Soft-touch VFO A grip	<ul style="list-style-type: none"> <li>• Updated design with new grip pattern</li> <li>• Softer material for improved tuning feel</li> </ul>	Available in Early 2016



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**Q: What modules are unique to the K3S?**

A: These upgraded modules (and components) are unique to the K3S and will not be available for K3 upgrades:

K3S Module	What has changed	Unique to the K3S?
K3S RF Board	<ul style="list-style-type: none"><li>• Added 5/10/15dB Attenuator</li><li>• Lower RF and digital noise floor</li><li>• Better port-to-port isolation</li></ul>	Yes
K3S Front Panel board	Real-time clock frequency adjustable; calibrated at factory to better than +/- 0.5 sec./day	Yes
Front Panel sheet metal	Updated silkscreen	Yes
K3S LCD/VFO bezel	New single-piece molded bezel with logo and integrated VFO pointer	Yes

**Q: Will my existing crystal filters work with the K3S?**

A: Yes, all K3 crystal filters are fully compatible with the K3S. They are configured in the same way.

**Q: Can I move the KPA3 100-watt PA module from my K3 to a K3S, or do I need the new KPA3A module?**

A: A KPA3 can be used in a K3S. However, we recommend using the KPA3A PA module, because the K3S RF board was optimized for use with the KPA3A's MOSFET power transistors. In a K3S, a KPA3A will typically provide 1 to 3 dB better transmit IMD performance, on average, than a KPA3.

**Q: With the K3S, will I need to keep track of another set of firmware revisions?**

A: No. New firmware releases will determine automatically whether you are using a K3S or a K3, and will support both original and upgraded modules. There will be no change in the numbering of these combined K3S/K3 firmware releases. You will be able to use *K3 Utility* to manage firmware updates for both transceivers.

**Q: Will K3S serial number sequencing change?**

A: Yes. K3S serial numbers will begin at 10000.



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## K3S support for K-Line products and peripherals

(KPA500, KAT500, P3, P3/SVGA)

### Q: What has changed on the rear panel of the K3S?

A: The most important change is to the communication ports in the upper right corner of the rear panel. This is where the new USB connector is located. The original RS232 port functions are preserved, though with a different jack type (RJ45) and a supplied DE9 adapter cable. The accessory jack (ACC) is unchanged.

The included adapter cable (shipped with the K3S) duplicates the original 9-pin RS232 port, so you can continue to use all of your station accessories as before.

The illustration below shows the rear panel of the K3S. The fan panel shown is supplied with 100-W model.



### Q: Can the KPA500 and KAT500 be used unchanged with the K3S?

A: Yes. The K3S supports these K-Line products. All cabling will remain the same as you see in the KAT500 and KPA500 Owner's Manuals.

### Q: Will the P3 operate with the K3S in the same way?

A: Yes. The K3S will support the P3 using the same cables you are using now for your P3 connections, with the addition of a supplied RJ45-to-DE9 adapter.

### Q: How can I operate the P3 and use the new USB port at the same time?

A: To use both USB connectivity and the P3, you'll need a new cable, CBLP3Y. The CBLP3Y cable will enable direct USB connection while accommodating full P3 support.

The CBLP3Y cable will be available directly from Elecraft. Price and availability will be announced prior to K3S shipments.



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**Q: What will happen to the K3 now that the K3S is available?**

A: With the introduction of the K3S, the K3 is no longer available. Elecraft production has already switched to the K3S.

**Q: Now that there's the K3S, what should I expect for support of the K3?**

A: Elecraft will continue to honor all warranties and will continue to fully support the K3. There is no change to this policy in any way. Anyone who has purchased a K3 will continue to receive email support and firmware updates when they are made available.

**Q: How long should I expect to get parts and email support for the K3?**

A: Currently, there are no changes planned for parts and support for the K3 for the foreseeable future.

**Q: Will Elecraft still provide phone call and email support for the K3?**

A: Yes, there are no changes planned for parts and support for the K3 for the foreseeable future.

**Q: Will the K3/0 Mini and Remote system work with the K3S?**

A: Yes, all cabling and Remote System products will work with the K3S.