



In This Newsletter

- Elecraft K4: The Pedestrian Mobile Test
- News & Updates - K4 Webinar and More!
- K4 Update

ELECRAFT K4: THE PEDESTRIAN MOBILE TEST

(wait...what?)

**At Elecraft, we take field testing seriously.
Sometimes we take it to extremes.**

Now, some might think that “K4 pedestrian mobile” is an oxymoron. Yet it’s the ultimate stress test – mechanically, electrically, and environmentally – for any rig. If the K4 can take this sort of abuse, then operating in the comfort of your home station should be...well...a walk in the park.

In reality, this test is totally apropos. The K4 is an Elecraft rig, so we know it will be used for Field Day, camping, and RV trips. We know it will find its way to remote DXpedition locales. We know it will be lugged around in suitcases and schlepped through airports. This is why we kept it lighter (just 10 pounds) and smaller than competing high-end desktop radios. Field operation is in its pedigree.

With this in mind, I prepped my K4 for the great outdoors.

* * *

To make on-the-move operation possible, I installed a 7 amp-hour battery *inside* the transceiver. (Don’t try this at home.) I could have used a lightweight lithium battery providing 14 V, but instead I opted for a more realistic worst-case power source – a 12 V gel-cell. These are often recruited for Field Day use despite a fairly high ESR that results in voltage droop on transmit.

The battery is shown in Fig. 1, nestled into the space for the transverter and HDR modules.



Fig. 1: Internal 12 V gel-cell



Fig. 2: Whip swivel mount on rear panel

As for the antenna, I could have simply tossed a wire into a tree. But I wanted to do true /PM operation, so I attached 4’ long Elecraft AX1 20/17 meter whip (Fig. 3) to the K4 via a swivel mount (Fig. 2). For this purpose I used the REF IN jack. To complete the antenna system, I connected the AX1’s 13’ long counterpoise to the K4’s GND lug.

Before I set out for the park, I tested the setup in my dining room. The dining table has a clear view northeastward toward the bay, and apparently the whip did, too. I switched the AX1 to 20 m, peaked it up with the K4’s ATU, and promptly worked F5IN. I’ve used the AX1 at up to 50 W, but I dialed it back to 30 W to minimize the biohazard.



Fig. 3: K4 with AX1 whip and internal battery



Fig. 4: K4/PM in the park. Zoom in to see the whip, over my left shoulder.

With internal battery the radio was pushing 15 pounds, so I only walked a mile or so. Still, the radio handled my ad-hoc vibration test regimen, which included trail jogging, rock hopping (Fig. 4), and avoidance of alarmed passersby. Lateral G-forces may have exceeded 0.1 during the latter. (Note: Our legal team compels me to mention that my Covid mask was in place at all times except during photography.)



Fig. 5 and 6: K4 on sloping rock, necessitating use of tilt stand for ideal viewing

At the beginning of my tests, 30 watts key-down dropped the battery voltage from 12.3 to 11.5 V. After an hour of testing, the voltage was dropping into the 10.5 V range on key-down. No adverse side effects were noted. The upshot is that compromised emergency field power supplies can be used with the K4, in contrast with most desktop radios, which may not even operate below 11 V.

Breaking the stereotype for what constitutes a “portable” radio was an enjoyable exercise. In keeping with this theme, next week—just for fun—we’ll be swapping a couple of our 1-pound KX2 transceivers in place of a like number of 50 pound, \$10,000 radios in a distinguished multi-multi contest station. We’ll let you know what happens.

Wayne Burdick, N6KR

Photography: Griffin Svec-Burdick

News & Updates

Register for our K4 Webinar on January 20 and 5:00 PST

Eric Swartz, WA6HHQ, will be hosting a Zoom webinar where he will demonstrate the K4 Transceiver and discuss key features. Space is limited so register now!

[Zoom Registration Here](#)

The Elecraft K3S and P3 Book by Fred Cady

We have a limited number of ***The Elecraft K3S and P3*** book by Fred Cady. The book is available for purchase on our website.

The Elecraft K3S and P3 Book

The Elecraft K-Line includes the K3s and its companions – the P3 panadapter, the KPA500, and the KAT500 auto antenna tuner. This book covers the details of the K3s and P3 that you need to be very effective at using these two components of the K-Line.

The Elecraft K3s and P3

By
Fred Cady - KE7X



Getting the Most from Your
High Performance Station

[Buy Now](#)

K3/K3S Options

We've received enough responses to our [K3/K3S Options Pre-Order Interest Form](#) to begin taking orders. For those of you who submitted an interest form, you will receive a Pre-Order email with direction to place your order early January. There will be an option to place a half deposit or full deposit when placing your order. Based on our suppliers' delivery schedule, we estimate shipping to start at the end of February.

If you have not completed a K3/K3S Options Pre-Order Interest Form, you have until December 31, 2020 to submit your form in order to be added to the Pre-Order email list.



Elecraft will be closed on the following dates in observance of the holidays:

Thursday, December 24

Friday, December 25

Friday, January 1

K4 Update

High-Performance Direct Sampling SDR



K4 Update - From Deep inside Elecraft

First, I apologize for the delay getting this update out. I've been head down, along with the rest of our team and our suppliers, for a good part of this month working to solve problems and get K4s flowing out to you faster.

We ran into delays in December due to several items:

Our biggest problem has been due to an interruption of deliveries on critical K4 Printed Circuit Board Assemblies (PCBAs) from our primary high-quality assembly subcontractor, who is located near us in Monterey, CA. This was due to both an unexpected surge in demand from their other customers, who were ramping up faster than expected, and on top of our K4 production needs, a significant increase in demand from us for our regular non-K4 product PCBAs (KPA1500, KX3, KX2, etc.) - both from huge Black Friday/Cyber Monday orders and our normal holiday season surge in sales.

Due to a miscommunication between us, they delayed several key K4 PCBAs in favor of PCBAs for our other products. When we finally caught the error (after multiple shipments were late or did not arrive) it took several weeks to get everything straightened out. Circuit board assembly lines, parts acquisition, etc. do not stop and start on a dime. This is frustrating to say the least. While we may have received the majority of the K4 PCB assemblies, if any of the other boards needed to complete the K4 100% are delayed, it holds up K4 manufacturing. That's frustrating for us and of course you. We've corrected the issue and we will see more PCBAs arriving late this week or next week. This should get K4 production back on track with regular deliveries to us on a weekly basis. I'm hopeful that January and beyond will be much smoother.

We have also just received several needed parts for a small number of production K4s that had all their circuit boards and were already in manufacturing. These K4s will be ready to test soon. If all goes well, they will be out by next week. If there are additional test-related delays, they will ship the following week.

Early in December, it took us longer to finish implementing and testing a planned update to the K4's internal Linux OS, which slowed things a bit. Thanks to the hard work from our s/w engineers and our Field Testers, that's completed, and we have updated the automated s/w build process and server along with K4's built-in s/w update process. It's very cool and easy to use.

The other news is that due to the larger than expected surge in regular orders, above and beyond orders and backlog for K4's, we have a very large regular product backlog which we are shipping to you as quickly as possible.

One last note - Elecraft will be closed for the holidays this Thursday and Friday (12/24-25) and New Years Day on Friday (1/1), with a few employees off extra days for well-deserved rest during that period. We hope everyone has a great holiday!

Eric WA6HHQ

How You Will Be Notified When Your K4 is Ready to Ship

A member of Elecraft Sales Team will contact you by email when your K4 is ready to ship. They will verify your shipping address and provide you with any additional information regarding your order.

If your email address has changed, please complete the [New Email Address Form here](#).

Listen for us on the air - We'll likely be on a K4!
Learn more about the K4 and pre-order [here](#).