

# Remote K4 On/Off Control Methods

\*\*\* Preliminary version \*\*\*

## Introduction

Elecraft K4 firmware version R36 and later supports K4-to-K4 remote control, either over a local LAN or across the Internet. Refer to the REMOTE CONTROL section of the *K4 Operating Manual* for the configuration details.

Though you can use a K4 macro to send a **PS0**; command to properly shut down and power off a remote K4, you cannot send any commands to a K4 to power it back on. The K4 hardware does not support the Ethernet "Wake on LAN" feature like the Elecraft KPA1500 amplifier, and the K4 USB and Serial Ports do not accept any commands until the K4 is powered on.

The only way to power up a remote K4 (or K3) is by pulsing **Pin 8** ("PWR ON") of the 15-pin **ACC** connector to ground, for at least 200 ms. This document describes several different methods to do this, with or without a PC at the server location.

## Alternate methods to power up a remote K4

### Use the KPA1500 TUNE jack to ground K4 ACC Pin 8 for 200 ms

Unlike the K4, the Elecraft KPA1500 amplifier may be powered up remotely by using either the KPA1500 Utility, or the KPA1500 Remote Control software, whether the amp is connected by a USB cable to a PC in the shack, or by Ethernet cable to a LAN. The 3.5mm **TUNE** jack of the KPA1500 may be pulsed to ground for 200 ms by sending the following KPA1500 command to the amplifier:

```
^TV200;
```

You may assign this macro to a KPA1500 PF key (**PF1** or **PF2**) using the KPA1500 Utility. Then you can send this host command to the amplifier by clicking the **PF1** or **PF2** buttons at the bottom of the KPA1500 Remote software, or by using the KPA1500 Utility Command Tester, or by using other amplifier control software (e.g., a TCP/IP or TELNET connection to the KPA1500 IP address, port 1500).

To complete the connection, use a shielded 2-conductor cable to connect the TIP of the KPA1500 **TUNE** jack to K4 ACC Pin 8. A convenient way to do this is to use the [Y-BOX by N6TV](#), which breaks out K4 ACC pin 8 to a separate RCA jack. Then a cable such as this one

may be used to complete the connection between the KPA1500 **TUNE** jack and the Y-BOX **PWR ON** connector:

<https://a.co/d/8GnDRx6>



**Note:** Many KPA1500's generate a very short (2 ms) ground pulse on the **TUNE** jack every time they are powered on. So powering up the KPA1500 may also power up the K4, if connected as described above, so it may not always be necessary to send the **^TV200** ; command. However, programming the KPA1500 PF key, or having some way to run the **^TV200** ; command, is still recommended, because the 2 ms ground pulse may not always be sufficient to power up the K4.

## Use an N6TV K-ON plug-in and a web power switch to power up the K4 automatically

The [K-ON plug-in by N6TV](#) connects to the K4 **ACC** connector and automatically boots the K4 (or K3) whenever the rig's DC power supply is switched on. The K-ON pulses ACC Pin 8 to ground as soon as DC power appears. It may be connected directly to the K4 ACC jack, or to a 15-pin Y-cable or to a [Y-BOX](#) (v3.0 and prior).

A web-enabled remotely-controllable AC Power strip such as this one may be used to power up the K4's DC Power supply from a remote location, and with the K-ON connected, the K4 boots up automatically.

<https://a.co/d/eUCuHux>



## Use a Y-BOX v4.0 and a web power switch to power up the K4 automatically

The K-ON plug-in described above is built-in to the [N6TV Y-BOX v4.0](#) and later, so no plug-in is needed. The Y-BOX v4.0 can be configured with the K-ON circuit “always enabled,” or it may be enabled or disabled simply by connecting or removing a shorted RCA Plug to the Y-BOX RCA jack labeled **AUTO ON**. If the shorted RCA plug is removed, the K-ON circuit is disabled. For a video demo of this feature, see <https://youtu.be/vhtBCPAbvTo> or [the K-ON website](#). Use the web-enabled remotely-controllable AC Power strip such as the one described above to turn on the K4's power supply and automatically boot the K4.

## Use a N6TV Serial Box (S-BOX) or equivalent to power up the K4

The [Serial Box by N6TV](#) (S-BOX) includes NPN transistor keying circuits that can be activated by pulsing the RTS pin of a serial port “high” for 200 ms. The S-BOX can be connected to a PC in the shack by USB cable or Serial cable, or to a [MOXA Ethernet to Serial adapter](#) or equivalent, if there is no PC next to the K4. The output of the keying circuit is connected to K4 ACC Pin 8, pulsing it to ground whenever RTS goes “high”. Free software such as the [Toggle RTS command-line utility by N6TV](#) may be used to pulse the RTS pin of a serial port high for 200 ms. The RemoteHams RCForb client also supports a “Use RTS as Power” option which does the same thing. See <https://www.kkn.net/~n6tv/S-BOX/Features.html#RemoteHams> for more details.

## Use any keying circuit or external keyer connected to Pin 8 of the K4 ACC port to send an 18 WPM "dash" to pulse K4 ACC Pin 8 low for 200 ms.

A “dash” sent at 18 WPM will generate a 200 ms pulse. If the keying output of a dedicated keyer or keying circuit is connected to K4 ACC Pin 8 via Y-BOX **PWR ON** jack or equivalent, sending that 18 WPM dash will power up the remote K4. All that is needed is remote access to a PC in the shack, or a WinKeyer v3 secondary keying output, to generate the ground pulse.