

Procedure to load firmware onto the Alpha 8410 / 8406 Amplifiers

- 1) Go to www.rfconcepts.com and go to the Alpha 8410 page under PRODUCTS, AMPLIFIERS
- 2) Create a new directory on your computer and download and save the following 3 files into that directory from the 8410 web page:
 - a. the FTDI Virtual COM port (USB) drivers
 - b. the Alpha (Colt) bootloader
 - c. the 8410 firmware file
- 3) Unzip the bootloader file and the firmware file.
- 4) Install the USB serial driver file – it is a small program and will install very quickly.
- 5) Change the step-start fuse on rear of amp chassis to 2 Amp Slow Blow (it may be a 2A Fast Blow on early amps). With the amplifier turned OFF and plugged in to the mains power, connect a USB cable between the amp and your computer – NOTE the amplifier remains turned OFF throughout this procedure.
- 6) At this point your computer should recognize the amplifier.
- 7) Verify the port number assigned to the amplifier through the computer's Device Manager – note that the bootloader will only recognize Com 1 through Com 9.
- 8) Run the bootloader and choose the COM port that is assigned to the amplifier – note that the scroll buttons to the right of the COM port window may be hard to see.
- 9) Click LOAD FILE and choose the unzipped hex firmware file to load onto the amplifier.
- 10) Unplug the amplifier from the mains outlet for 10 seconds, then plug it back in and within 2 seconds click PROGRAM to upload the file and watch the blue progress bar (cycling the power resets the microprocessor, you have 2 seconds to start the file upload).

11) Once the file has uploaded to the amp, you may exit the bootloader, unplug the amplifier from the mains outlet for 10 seconds, then plug it back in.

12) Your amp is ready to use with the new firmware. You may need to select the Multimeter function from the Show Config command (see below), the firmware update sometimes resets the Multimeter.

If you have any questions go to our home page and click on About, Contact Us and fill out the form.

8410 Commands (Additional to Code Version 2)

"c" Show config

"e" Change parameter shown on Multimeter position 3 - EFF, GAIN, or HEAT

"C" Save config

Alpha 8410/8406 Amplifier, Version 2.02e Firmware (and higher)

1. Soft Start delay increased to 750ms to reduce inrush current stress
2. Fixed bug where efficiency was occasionally being reported as exceeding 100% in telemetry.
3. Added remote OPER/STBY commands for use by AE9K software
4. Blower speed change temperatures lower by 2 degrees