

Upgrading the Jupiter PLD (Programmable Logic Device) to add support for a plug-in keyboard

BACKGROUND

The logic board in the Ten-Tec Jupiter transceiver contains a PLD (Programmable Logic Device) that provides the DSP system with enhanced I/O (Input-Output) capability. In order to support the new CW keyboard interface this PLD must be upgraded. The Logic board was designed to allow the DSP processor to perform this upgrade using special firmware from Ten-Tec.

SPECIAL NOTE

If you have a Jupiter with a factory installed blue LCD display then you do not need to perform the PLD update. If you are updating your Jupiter to the new Multi-Program memory chip you should perform the PLD update while the old chip is in the radio. Then, after updating the PLD you can remove the old memory chip and install the new one.

HOW TO PERFORM THE PLD UPDATE

The new PLD firmware file is similar to other radio firmware upgrades. However, this firmware will only need to be run once. After downloading the PLD update package from www.rfsquared.com you will need to perform a standard update using the file 538KBD.RUF. Once the PC utility completes downloading the firmware, the radio will begin executing the firmware start the process of updating the on-board PLD. This process will take up to 3 minutes. During the time the PLD is being reprogrammed the **RED TX LED** will turn on. During this phase of the update operation it is critical that the radio not be tuned off. Doing so may leave the PLD in a state that will prevent it from operating normally and may require the radio to be returned to Ten-Tec for service. When the PLD programming is completed the **RED TX LED** will go out and the **GREEN RX LED** will turn on. You will also hear the relays in the radio click as they are reset. At this point the power to the radio should be cycled. You should see the message "PLD IS PROGRAMMED. NOW UPDATE FIRMWARE" displayed on the screen.

At this point, you should reprogram the radio firmware or install the new IC, depending on the level of upgrade you are performing.