## **ALT-512 Firmware Update Procedures**

Before you begin:

- 1. Copy the firmware update folder to a convenient location in your Windows computer, such as the desktop or a folder of your choice.
- 2. Connect the radio to an antenna or dummy load.
- 3. Turn the radio on.
- 4. Set band 20m or any other.
- 5. Select USB mode or any other.
- 6. Determine which COM Port the radio is connected to:
  - a. Open the computer's Device Manager (found in the Control Panel).
  - b. Find the line for "Ports (COM & LPT)" and double-click it. In a drop-down menu it shows you the current active ports on your computer.
  - c. Connect a USB cable between the radio and the computer.
  - d. Allow 30 seconds or so for the computer to find and recognize the radio.
  - e. Automatically the screen of the Device Manager will refresh and show a list of the ports again. You should see a new USB Serial Port (COMx). The "x" is the number of the COM port that the radio is connected to. REMEMBER this COM port number (write it down).
- 7. Turn the radio off.

Now you are ready to run the firmware update. The update takes 3 or 4 minutes to run. Do not touch the computer or the radio while the update is running.

## **BEGIN UPDATE:**

(Note: the example below uses V.1.02.02. Future release will increment the file name to reflect the newest release number.)

- 1. Push the PAN button and hold it pushed, and then turn the radio/RED button ON/OFF/ while continuing to hold the PAN button pushed.
- 2. Continue holding the PAN button until you see a message on the screen that reads:

"Bootloader 2.0

Waiting for the update to start ... "

- 3. Locate the firmware update folder on your desktop (or whatever location you stored it in).
- 4. "updatefirmware2.0.0\_x86.exe" 32 bit "updatefirmware2.0.0\_x64.exe" 64 bit Double-Click the firmware update folder. This will open the folder and show its contents. Usually there are two files, the update program (application) called "updatefirmware X.Y.Z (ALT-512), and the update software file itself (ALT-512\_vX.YZ.fw) where X.YZ is the firmware version that will be uploaded to the radio.
- 5. Double click the application updatefirmwareX.Y.Z (ALT-512).

√ trx.fw			Open	
		the second s		

6. Click the tiny down-arrow to the left of trx.fw . This opens up a drop down menu showing the available COM ports.

~	trx.fw		Open	
COM1				
LOM2				1

7. Select the port that connects to the radio. This is the port you identified and wrote down in step 6e under "Before you begin". Click on this port. In the example here it is COM2. The next screen appears:

Update firmware 2.0		×
COM2 ~		Open
	UPDATE!	
		EXAMPLE

8. Click "Open". This opens the windows explorer browser. Browse to the location of the update folder and find the update software. In this case it is trx3.1.02.02fw. Double-Click the firmware file. This inserts the filename into the Update window:

Upda	te firm	iware 2.0	×		
COM2	~	D:\.1-TRCVR STM32F429\RABOTNI\trx3.1.02.02.fw	Open		
•					
		UPDATE!			

- 9. You are ready to begin. Remember not to touch the radio or the computer while the software is running. Click "UPDATE"
- 10. The Update begins. Its progress is displayed as a slow moving green bar above the word "UPDATE".



11. After 3 or 4 minutes, the green bar reaches the right end of the scale and the firmware update is complete. You will get a device update confirmation screen as follows:

	Information	×		
	Device update!	_		
Update firmware 2.0				×
COM2 ~ D:\.1-TRC\	F OK	trx3.1.02.02.fw	Open	
	UPDA	TE		
				EXAMPLE

- 12. Turn the radio OFF.
- 13. Wait 10 seconds, and then turn the radio on again. The new firmware version is shown in the startup logo screen.
- 14. This confirms that the radio has updated successfully. You are ready to go with the new firmware version.