

Upgrade Options for BD970 Board

Notice:

- a) This document is about upgrading firmware for BD970 board in a TKO receiver
- b) For software downloading, please visit the website below,
https://oemgnss.trimble.com/support/#all_0-258-wpfd-bd970_v5_48 to install v5.48
- c) If the battery is from 2021 or newer, and fully charged, it should be sufficient to use for updating. Please see our Lithium-Ion Battery pamphlet for more details.

1. Preparation:

- a. Hardware: Computer with Serial port or USB port adapter, Receiver's 'Y' data cable, GC-3
Software: sscm32E and WinFlash
- b. Codes: Options key for the board (only necessary when upgrading board options)

2. Operation:

- a. Install "BD9xx" software on your PC.
- b. Switch on receiver; connect to computer through serial port. Serial port will vary per PC or laptop, change until connection is established.
- c. Run "sscom32E" software, click **Open Con** to connect to your receiver; Mark "Send HEX", Input command "**24 24 56 53 01 00 55 51 0d 0a**" as **figure1**, Baud rate a 19200, then click **SEND** to send information to receiver.
After sending this order, receiver will say: Update OEM.



Figure 1

Then Click **Close/On** otherwise this serial port will be occupied.

- d. Run WinFlash software, Select the right serial port and click **Next >** as figure 2.



Figure 2

- e. Select **“Update receiver options”**, input license code as figure 3 (this operation is only necessary when upgrading board options). Should be able to copy and paste directly from email. If the code is not accepted, then try Legacy password option.

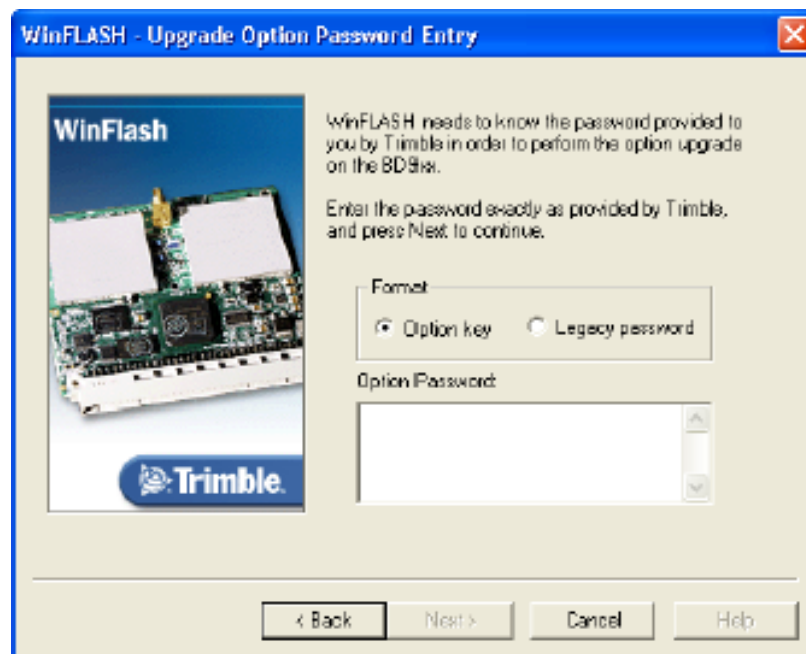



Figure 3

Click on “Next” to apply the license code.

- f. Go back to main interface, select “load GPS Software”, click  as figure 4.

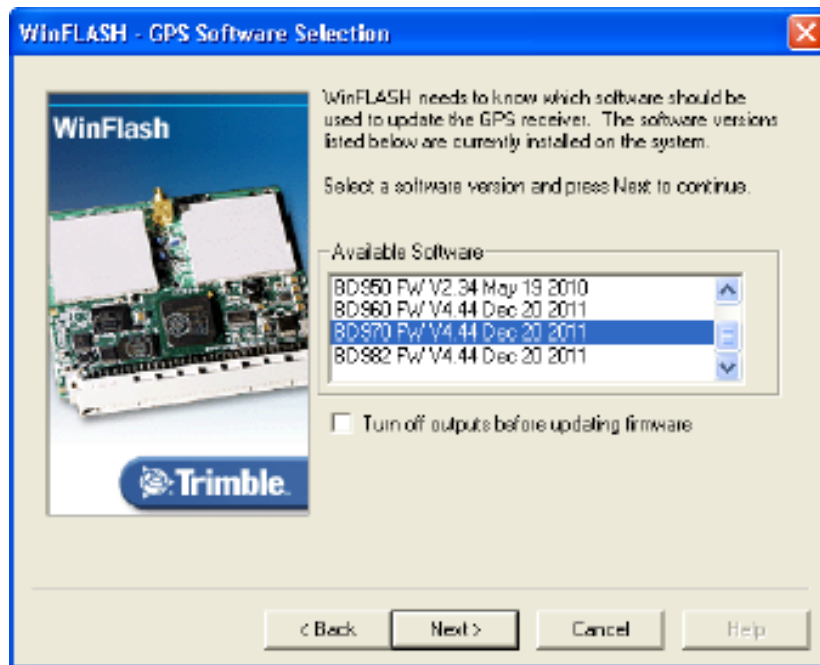



Figure 4

- Chose “BD970 FW”, also click  figure 5.

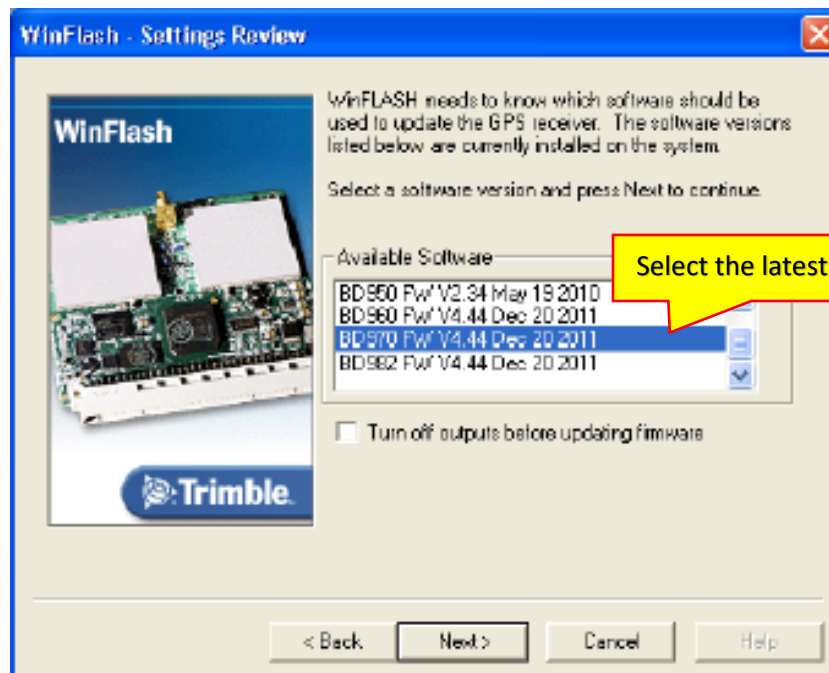


Figure 5

- g. Click then wait for updating to finish as figure 6 & 7.

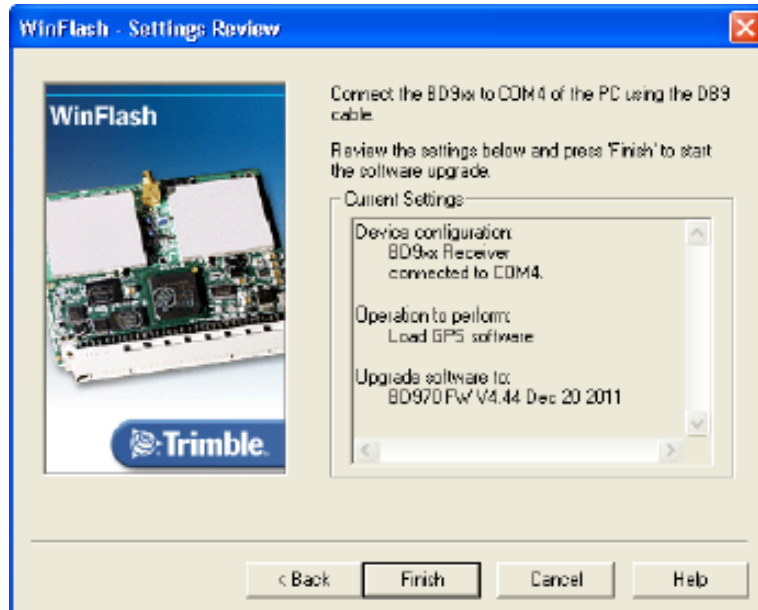


Figure 6

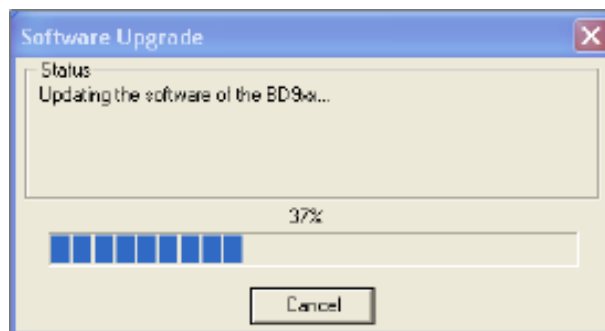


Figure 7

The update process can take 20 minutes or longer. Be patient.

Notice: After finished updating firmware, Please restart the receiver.

Once the receiver is restarted, for best results, perform a motherboard reset by pressing the F1 key two times; you should hear a dingdong for each push.

Depending on how old the OEM board is, you may get the message OEM failure. Ignore the message at this point and connect to the TKO using the WR1 GNSS Receiver Manager v1.05 to find the Trimble board serial number and version. If the version is correct, the system should be good at this point.

Sometimes, you have to use the refresh option in the receiver manager software to get the information to come up. If you do not see the firmware information and version, redo the process - please note the second update is not as long as the first.