

## How to update receiver to use BDS (X91+)?

### Prerequisites:

- Hardware: X91+ GNSS receiver
- Software: CHC Hcconfig V1.0.1.608 , Trimble WinFlash  V1.217

### Question:

- How to update receiver to use BDS (X91+)?

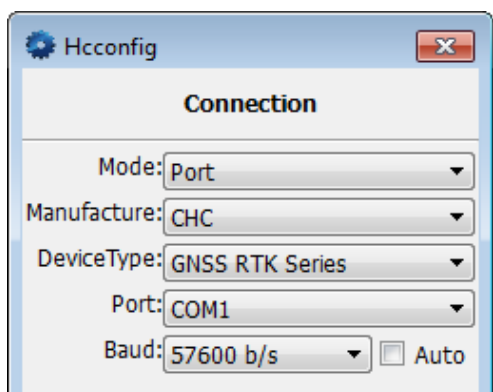
Please follow the steps below.

1. Power on receiver, use the RS232 serial cable to connect the receiver with computer's COM port, or with computer's USB port through the USB to serial converter (DO NOT USE THE USB PLUG ON THE CHC CABLE).

### Send pass-through command

2. Use Hcconfig to issue pass-through command to mainboard.

a) Run Hcconfig, click **Connection** in the main menu.



b) Configure the connection parameters as follows, and then click **Connect** button.

**Mode:** Port

**Manufacture:** CHC

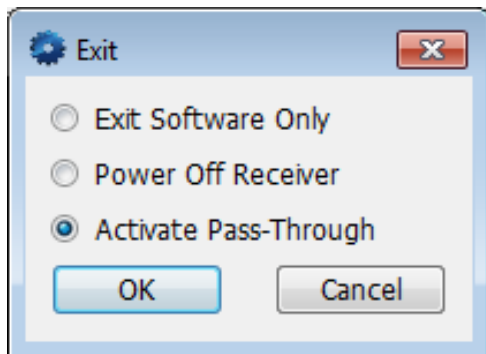
**DeviceType:** GNSS RTK Series

**Port:** COM port that used to connect the receiver with PC

**Baud:** Baudrate of COM port on the receiver

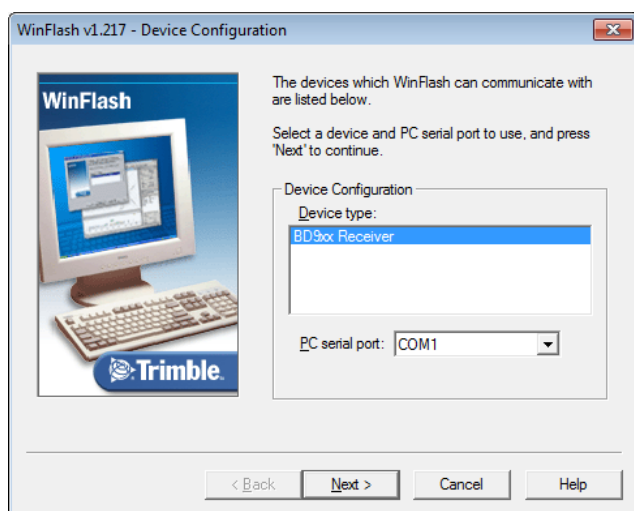
*Note: Also, you can mark the "Auto" option to search the appropriate Baudrate automatically.*

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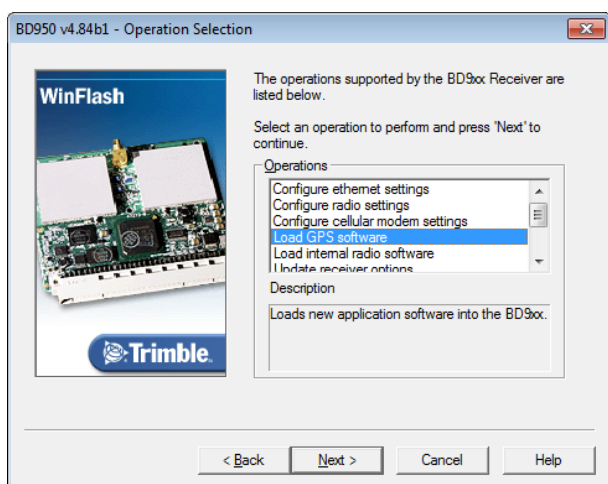


c) After the successful connection, click **Exit** in the main menu, choose the **Activate Pass-Through** option, and then click **OK** button.

## Upgrade OEM board firmware

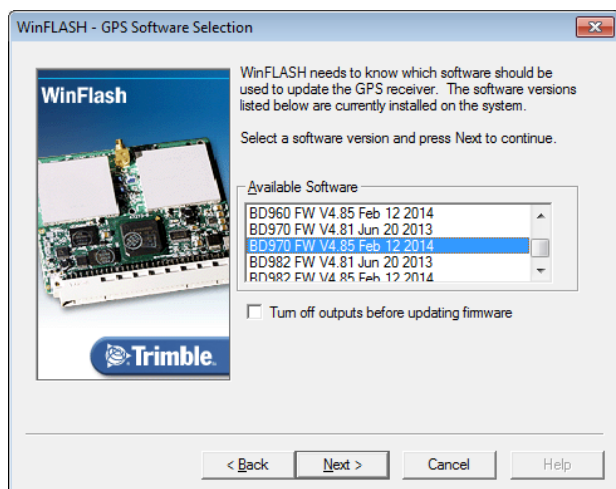


3. Run software WinFlash, select correct COM port for PC serial port, and then click **Next** button.



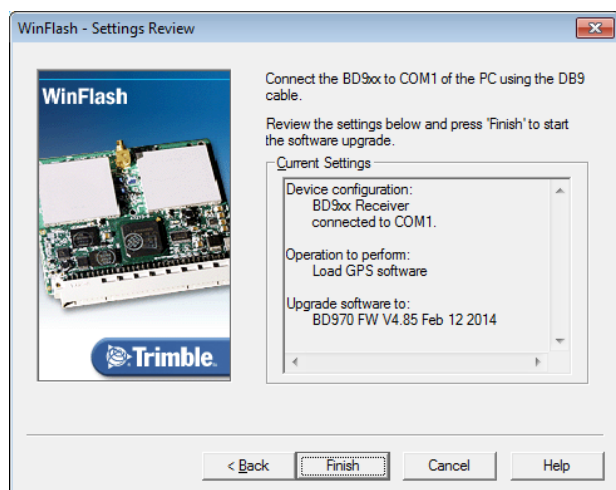
4. Select **Load GPS software**, and then press **Next**.

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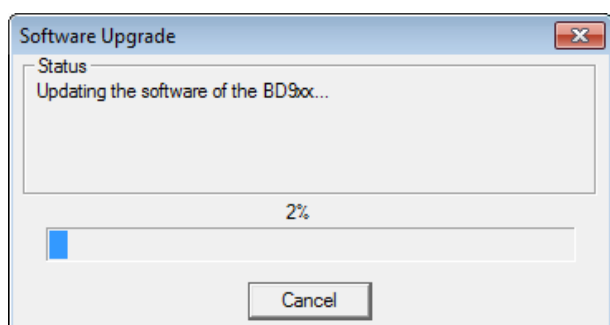


5. Select the proper firmware version according to the OEM board type of the receiver and click **Next**.

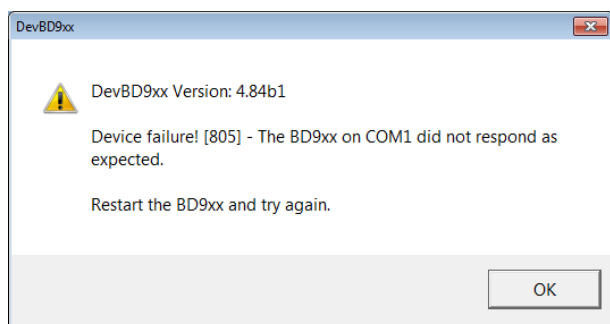
*Note: The OEM board of X91+ is BD970, and its latest firmware version which supports BDS is V4.85.*



6. Confirm the settings again and click **Finish** to start upgrade.



7. The upgrade process may take about 15-20 minutes. After the upgrade is complete, click **Menu** to go back to the Operation Selection menu.

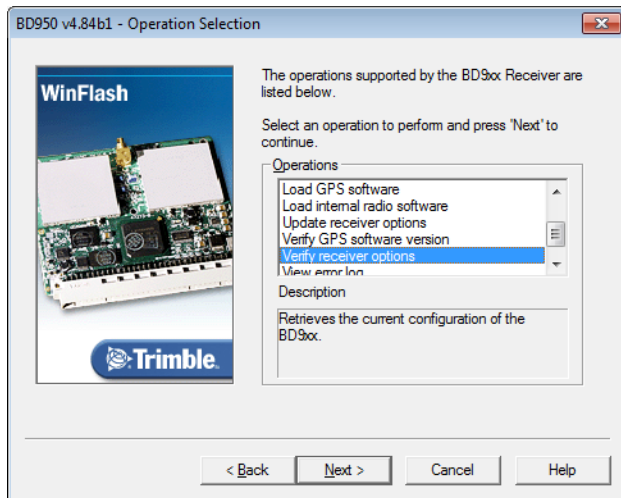


*Note: If the "Device failure" shows up, which means the failure of pass-through command, please quit WinFlash and send pass-through command to OEM board again.*

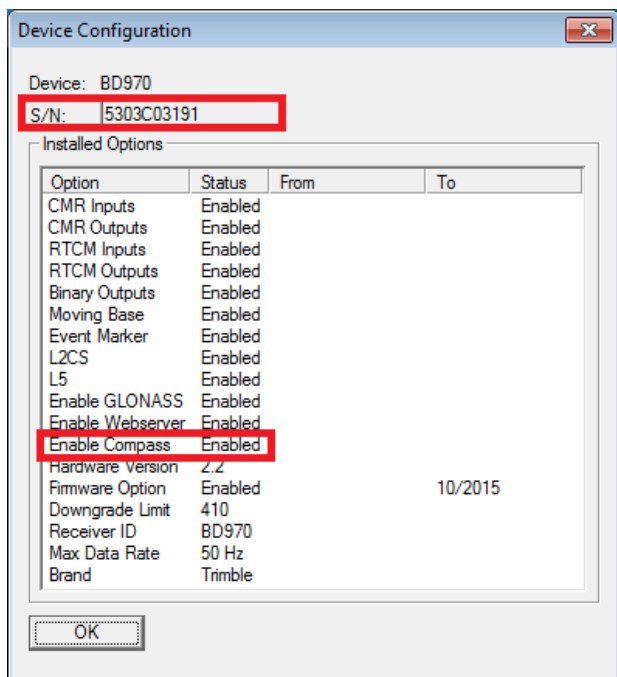
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## Activate BDS option

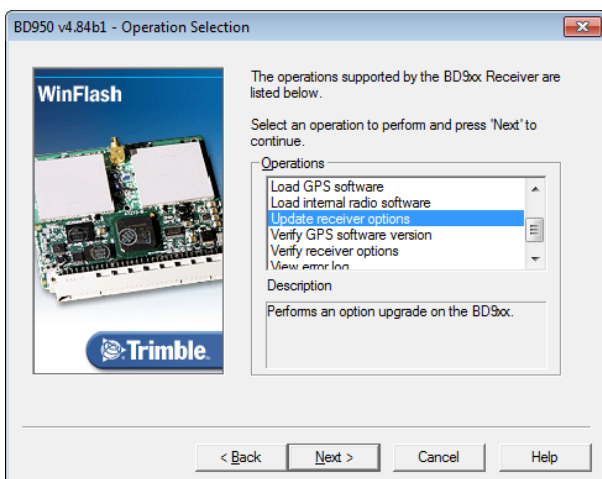
8. Select **Verify receiver options**, and then click **Next** button.



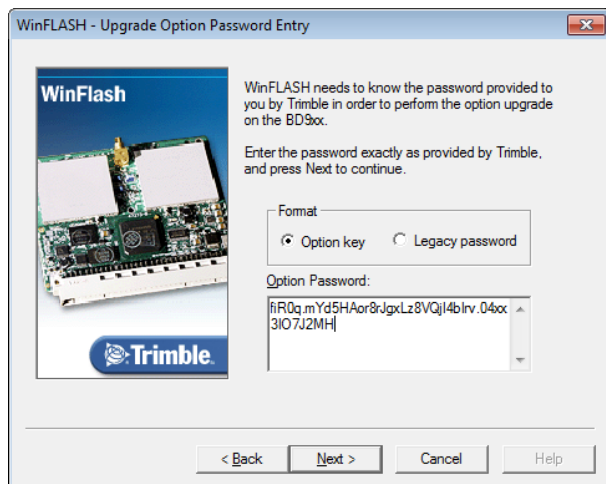
9. Check whether the BDS option is available. If the “Enable Compass Enabled” message is displayed in the Installed Options, which means the BDS option is activated, and then jump to step 13 to continue; otherwise, remember the S/N of BD970 board and refer to step 10-12 to activate BDS option.



10. Press OK and go back to the Operation Selection menu, select **Update receiver options**, and then press **Next**.

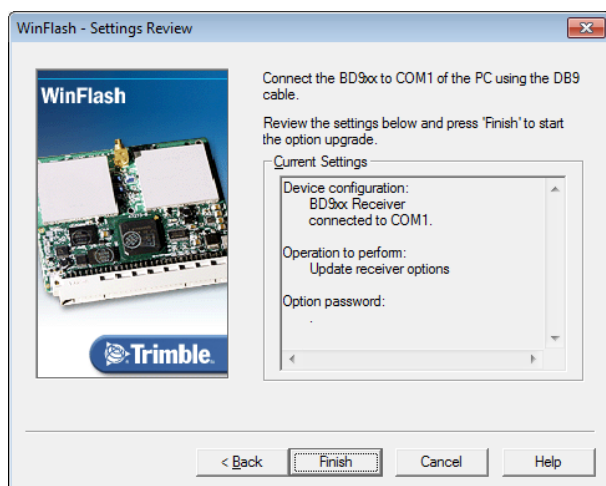


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11. Select **Option key**, and input the BDS register code into the Option Password input frame, and then press **Next**.

*NOTE: Send the S/N of BD970 board to your dealer to apply the BDS register code.*



12. Confirm the settings again and click **Finish** to start option upgrade. It will take about 2 minutes to finish upgrade which can activate the BDS option that blocked before.

## Upgrade receiver firmware

13. Update receiver firmware to version 8.13.

Any other question or problem please send email to [support@chcnv.com](mailto:support@chcnv.com) or contact us online via Skype.

Our Skype ID is [chc\\_support](#).

Last reviewed on September 26, 2014.