GRT AVIONICS

Why do I need to update my software? It works just fine.

We continually improve our EFIS systems' features, controls, graphics, and integration with third-party equipment. After a certain period of beta-testing, we will periodically release new software updates for our systems. You may choose not to update your software, but we recommend it for optimal performance of your system.

- **WARNING:** Always thoroughly test your new software updates in VFR conditions until you are confident that your display units, AHRS, and all connected third-party equipment will work properly under all circumstances. Never fly IFR with new software updates until you have thoroughly tested all functions of the display units, AHRS, and all interfacing third party equipment, especially navigation equipment.

Where do I find new software updates for my EFIS?
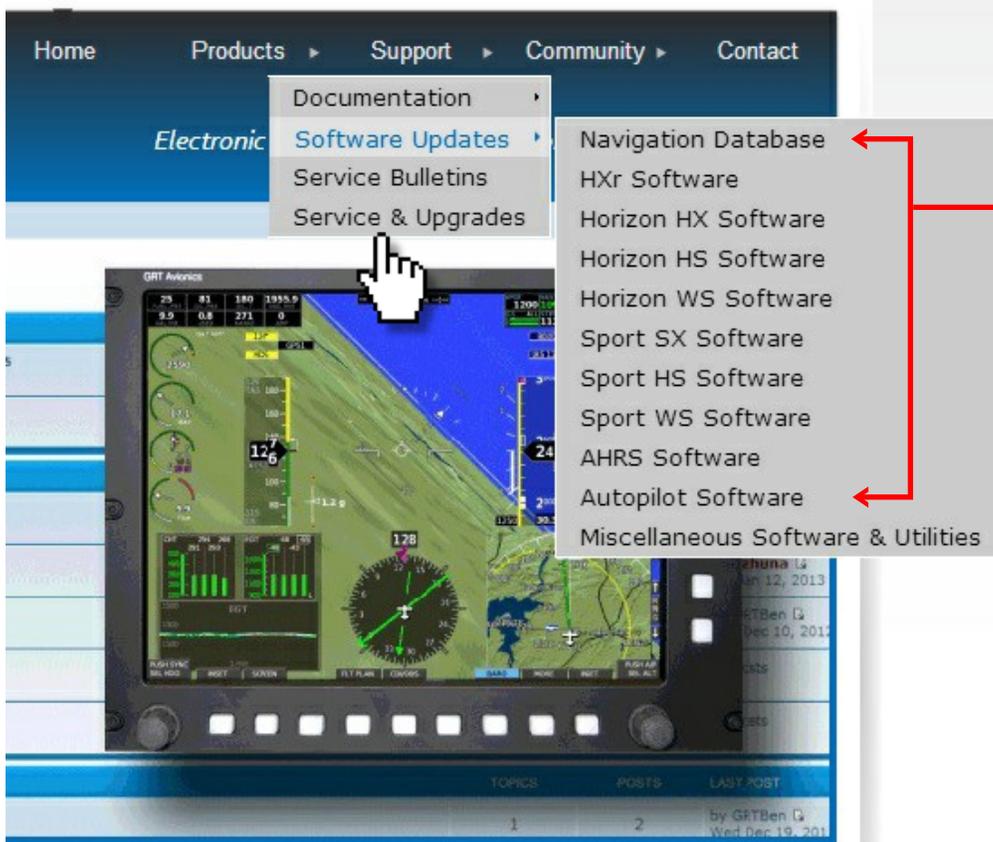
1. Go to the GRT Avionics website: www.grtavionics.com.

2. Under the Support menu, click on Software Updates to take you to the Software main page, or select directly from the popup list to access the website page dedicated to your EFIS system software.

3. The dedicated EFIS software page has a link for you to download the latest software package for your EFIS system. It may also have a link to any available "beta software" that you should ONLY download if you would like to experiment with untested features.

4. There are 4 different sets of updatable software: Display Unit, AHRS, Navigation Database, and Autopilot Servos. The Display Unit and AHRS software are always included in the **Display Unit + AHRS** package. **AHRS-only** software is available for advanced users who want to try different AHRS software than what's offered with the Display Unit; Most people never need to use the stand alone AHRS software. The **Navigation Database** is updated by the U.S. Government every 56 days. Check our site periodically for free Nav database updates. And occasionally, we update the software in our **autopilot servos.** That's updated in the same way as the AHRS software. Don't worry, once you do this a few times it will be easy.

There are so many systems listed. What kind of GRT EFIS System do I have?

Read the black self-check boot up screen on your display unit **before pressing ACCEPT**. It will list the EFIS display unit type and installed software version for Display, AHRS, and Navigation database.

EFIS display unit model ———→

Installed EFIS display unit software ———→

Installed AHRS software ———→

Navigation database release date; current for 56 days after this date. Map information will still display after 56 days, but it will be outdated ———→

> **EFIS Horizon Series I HXr Power Up**
> **EFIS software integrity check: PASS**
> **EFIS software version: 1d Date: 2013-01-03**
> **AHRS software version: 0.43**
> **Navigation database integrity check: PASS**
> **GRT US Government Nav Data**
> **Effective: 2013-03-07**
> **Speed/Distance Units: Knots, nautical miles**
> **AHRS Communication: OK**
> **GPS Communication: OK**

Now that I've found my files, where do I put them?

Your EFIS display unit came with a SanDisk USB Thumb Drive. It's a small rectangular device that looks like this. When you plug it into your computer's USB port, it acts as an additional hard drive to store files. It will usually be listed as "Removable Disk" with a letter designation in your computer's directory. Follow these steps to load the files onto your USB drive on a Windows computer. Mac computers may behave differently, but will essentially use the same process. Then you will load it into your displays.

1. Insert the USB drive into the computer's USB port. A window may pop up that says "Auto Play." This window will also list the USB drive's name as "Removable Disk" with a letter designation. Remember this name because it will make it easier to find the USB drive on your computer. Open the USB drive to view the files. You may select and delete the factory SanDisk files if you wish. Delete all files from the drive with *.dat and *.db extensions.

2. Go to the Software web page for your EFIS system. In this case, Sport SX. Find the **Display Unit + AHRS** software download button.

3. Click "DOWNLOAD" with the **right mouse button** and select "Save Link As..." The window at right will appear. Click on the name of the USB drive (under the Computer heading) to tell the computer to save the file onto the USB drive.

   TIP: Do not rename the file. The EFIS only recognizes the original file name.

4. Save the file in the root directory of the drive. This means it is NOT inside a folder, but in the open. The EFIS will not see the file if it's hidden inside a folder on the USB drive.

Click name of USB drive to select it as the destination for your software file.
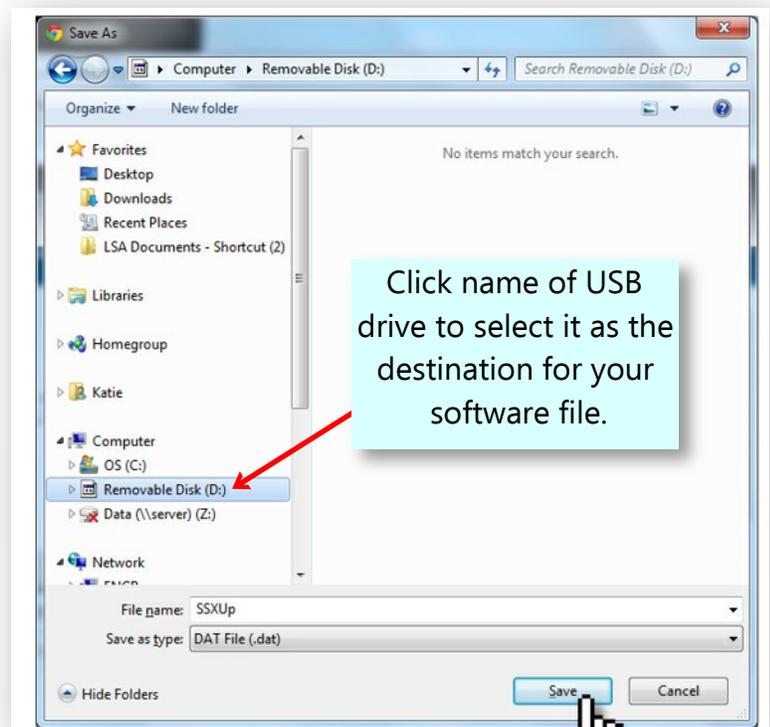
5. **Horizon WS Users Only:** Your file downloads are contained in a ZIP folder. In order for the EFIS display to see the files, they need to be EXTRACTED from the ZIP folder into the root directory of the USB drive. To do this, right-click on the ZIP folder. Choose "Extract All…" from the dropdown menu. A window will appear that asks you to choose where you want to save the extracted files. Type the USB drive's letter designation in the window. In this example, using "Removable Disk (D:)," it would be simply   D:\   Click EXTRACT and the files will be taken out of the folder and placed in the root directory of the USB drive.

To extract a ZIP folder, type letter designation of USB drive followed by :\ here.
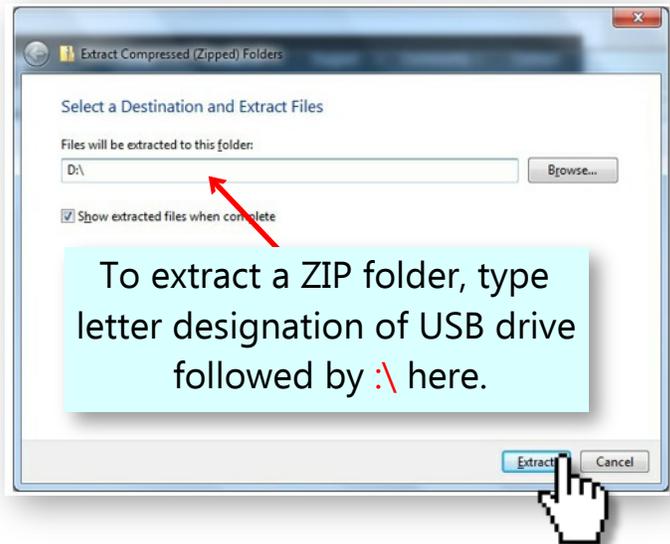
6. **To update Navigation Database:** Go to the Navigation Database updates web page, also under the Software menu of the www.grtavionics.com website. Repeat steps 3 and 4 above to save the current Free U.S. Navigation Database file to your USB drive.

7. Congratulations! You now have all the software you will likely need to update your displays. Go to the airplane.

8. Power up the Display Units. Insert the USB drive into any USB port in the back of the unit, or into the USB extension cable if so equipped.

Loading Display Unit Software Into HXr

1. From the HOME screen, press the MORE softkey. Then press the SET MENU softkey to enter configuration page.

2. Turn the Right Knob to scroll to "Display Unit Maintenance." Press the knob to select.

3. Turn the Right Knob to "Load EFIS Software" and press the knob. The screen prompts you: Load EFIS Software– ARE YOU SURE? Press the YES softkey.

4. The display unit will find the software file on the USB drive and upload it. When it's finished, it will automatically reboot.

5. If the display unit you just updated also controls an AHRS unit, you are not done yet. You will need to send the AHRS portion of the Display Unit Software to the AHRS unit. Usually, Display Unit 1 (usually the left side) controls AHRS 1, and Display Unit 2 controls AHRS-2, if installed. Repeat Step 1 to access the SET MENU.

6. Turn the Right Knob to scroll to "AHRS Maintenance." Press the knob to select. The serial connection to the AHRS can be verified by observing that the AHRS maintenance page has no grayed-out data.

7. Turn the Right Knob to scroll to "Load AHRS-1 (or AHRS-2) Software." Press the knob to start. The screen prompts you: Load AHRS-1 Software– ARE YOU SURE? Press the YES softkey.

8. The display will transfer the new AHRS software to its AHRS unit. This may take up to 10 minutes. When the system is finished, it will reboot. Check the boot-up screen to double check that all current software

revisions are in place and the AHRS is still communicating with the Display Unit. You may now turn off the EFIS system.

Loading Software into all other Horizon/Sport Display Units

1. Press the far right softkey ("NEXT") repeatedly until SET MENU softkey appears. Press SET MENU softkey.

2. Follow steps 2-8 of "Loading Display Unit Software Into HXr" to complete the software update.

Loading Navigation Database

1. From the "Display Unit Maintenance" page, select "Database Maintenance." Push the knob to select.

2. Scroll to "Load Navigation Database." Push the knob to start. Answer prompt with YES. The database will load from the USB drive into the display unit.

REPEAT ABOVE STEPS TO LOAD NEW SOFTWARE INTO EACH DISPLAY UNIT AND AHRS.

Installing Autopilot Servo Software

When one of the Display Unit serial port set is configured for GRT Autopilot, the A/P Maintenance heading appears at the bottom of the main Set Menu page.

1. Go to www.grtavionics.com, Software Updates page, and click the Autopilot link to bring up the Autopilot Servo Software page.

2. Save the new servo software file(s) onto your USB thumb drive in the same way as you would save new Display Unit software. Go to the airplane and turn on the display units. Insert the USB drive to the USB port of a display unit that is wired to the GRT autopilot servos.

3. Scroll to A/P Maintenance with the right knob. Push the knob to select.

4. The Autopilot Maintenance screen appears. The servos' software version is listed near the bottom of the screen. To load the new software, select Roll Software Update or Pitch Software Update and push the knob. Press YES softkey when prompted. The display unit will send the software to the servo processor.

5. Repeat for other servo, if installed. There is no need to repeat the process with the other display units wired to the servos.

Installing AHRS-Only Software

1. Save AHRS software onto USB thumb drive. Follow steps 1-4 in Loading Display Unit Software to load the AHRS software into the display unit that controls the specific AHRS unit to be updated.

2. Follow steps 5-8 of Loading Display Unit Software to transfer the new AHRS software from the display unit to the AHRS.

3. When software loading is complete, the AHRS will reboot automatically.

4. Confirm the software version for the AHRS at the top of the "AHRS Maintenance" page, and on the ACCEPT screen that appears after the display unit is powered-up. You may now turn off the EFIS system.

Congratulations, you're done!