

## SIL 3500-04 SN3500 EHSI Service Information Letter

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Date: 9/29/2006  
Regarding: SN3500 3.01 Software Release

### Reason

Availability of new SN3500 Software

### Applicability

Applies to Sandel part number SN3500-xxx

### Description

This new release of software provides the following new features and enhancements. Be sure to read 'Notes' below.

#### Changes to Operational Mode

- Changed heading operation during first two minutes after startup to revert to fast slave mode in installations where a KG-102 gyro input is flagged as invalid
- Corrected issue with incorrect heading display during extended high-rate turns (more than 10 minutes) in installations with a KG-102 gyro input
- Added smoothing to compass card display when using XYZ heading input
- Corrected display of flight plan course line when GPS is set to OBS mode to address scenario where course line could flash
- Corrected situation in installations with WSI but no WX-500 input where pressing and holding the WX button would cause a system restart
- Disabled heading bug sync function of heading knob during map menu operations
- Map scratchpad memory retained during power cycle

#### Changes to Maintenance Mode

- Added null calibration capability to lateral and vertical deviation outputs on Maintenance Page 10
- Added separate calibration settings for heading and course FCS deviation outputs on Maintenance Page 9

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- Corrected display of equipment active status indicators on Maintenance Page 13
- Corrected operation of GPS Vertical Deviation selection menu when an ARINC 429 GPS is selected on Maintenance Pages 7 & 8
- Corrected display of valid/invalid status of analog DME valid input on Maintenance Page 5
- Changed bootstrap output selection to be independent of FCS selection. Bootstrap selection is now on Maintenance Page 10.
- Added support for analog NAV receivers which do not output composite signal
- Changed analog to/from input when using analog localizer input to match installation manual
- Corrected display of vertical flag and super flag output voltages on Maintenance Page 10

The SIL 3500-04 related files including the software and update utility can be accessed on the Sandel website at:

[www.sandel.com/SN3500\\_EHSI\\_sup\\_sb.php](http://www.sandel.com/SN3500_EHSI_sup_sb.php) [case-sensitive]

or you can contact Sandel Product Support at (760)727-4900 selection "2"

## **Compliance**

Recommended

## **Warranty**

None, unless pinout change is required due to the software update (see notes below), in which case 1 hour.

## **Documentation**

82005-PG Rev. E Pilot's Guide

## **Notes**

Existing installations which have LOC DV input set to ANALOG may need to have the analog +TO/+FROM wiring reversed following the software update to version 3.01. This will affect installations with a Garmin GNS480/CNX-80, King KLN-89B and/or King KLN-94. Verify the wiring with the SN3500 Installation Manual.

## Instructions for software update to version 3.01

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### Introduction

This section describes the procedure to update an SN3500 to software version 3.01.

### Hardware Requirements

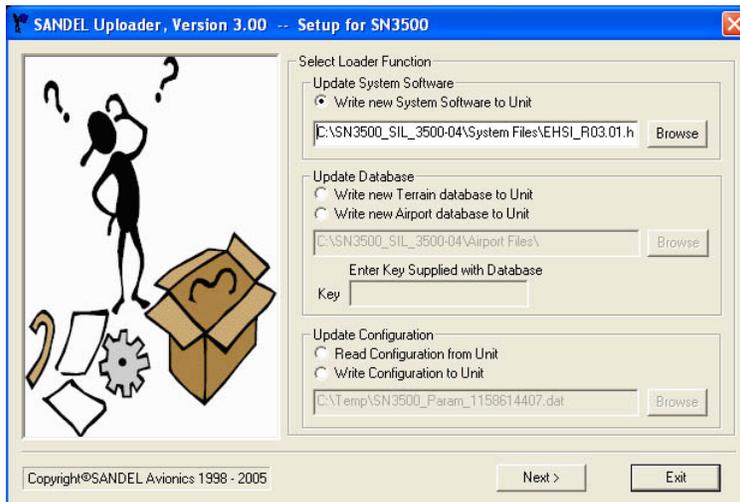
PC with Windows XP or 2000 with available USB port

USB to mini-USB interface cable, Sandel part number 88114 or equivalent

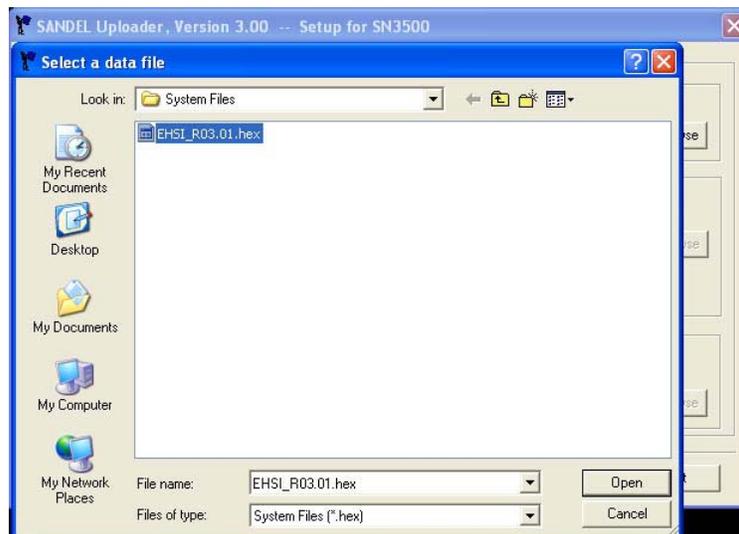
### Upload Instructions

1. With power removed from the SN3500, connect the SN3500 to the PC via the USB cable.
2. Power up the SN3500 in maintenance mode. This is done by holding down the BRG and MEM keys on the SN3500 while applying power. Continue to hold down the two keys until the display is visible.
3. If a message 'Found New Hardware' appears, follow the instructions for loading the USB driver in document **24001-01 Sandel USB Uploader Instructions**.
4. Open Windows Explorer and locate the **Sandel\_Uploader\_3.00.exe** file. The default location will be in 'C:\Sandel\SN3500\_SIL\_3500-04'. Double click on the Sandel\_Uploader\_3.00.exe file to start.

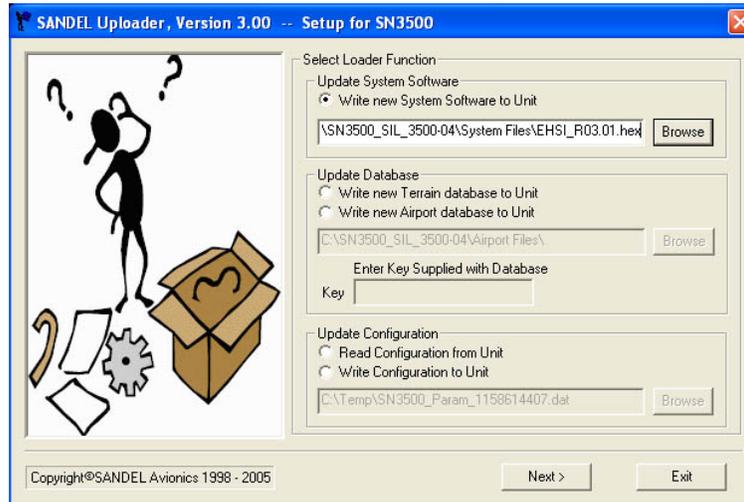
5. The Sandel Uploader Setup screen will appear. (Example below.) Select the option for **'Write new System Software to Unit'**.



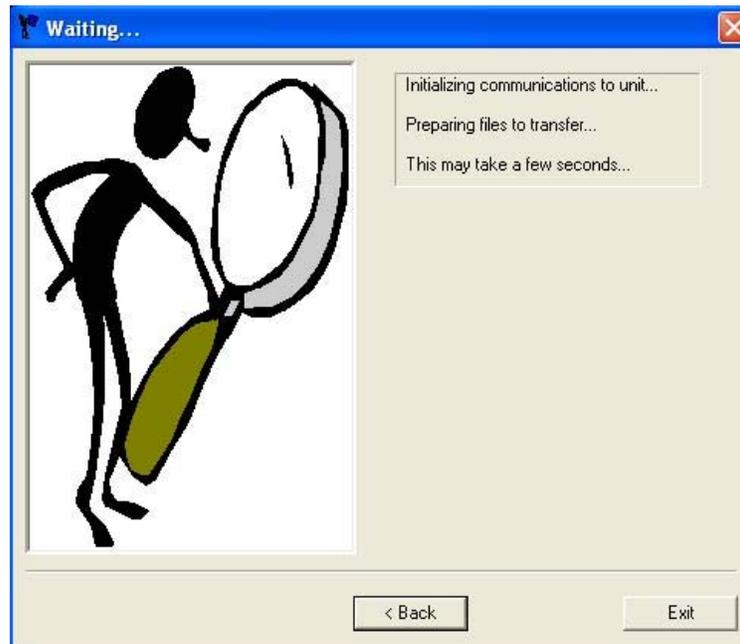
6. Click on 'Browse' and locate the file 'EHSI\_R03.01.hex'. Highlight the file and click on 'Open'. The default location for this file is 'C:\Sandel\SN3500\_SIL\_3500-04\System Files'.



7. Verify that the file 'EHSI\_R03.01.hex' is shown in the selection window and then click on 'Next'.



8. A message that the program is initializing communications with the unit will appear for several seconds.



9. Once communication is established, the software file will be transferred to the SN3500. Do not remove power or disconnect the cable until 'Software System Load Complete' is shown.



10. Close the program by clicking on the red 'X' at the top right of the program window. The USB cable can now be removed and the SN3500 powered down.
11. Power up the SN3500 in maintenance mode. On Page 2, verify that the Software Rev is 3.01. On Page 16, SFTWR CRC, press the CLR button on the SN3500 to update the CRC codes. Verify that all fields show Pass.
12. Verify that the configuration settings on Pages 2-12 are unchanged from the previous settings. Power down the unit when done.

## Troubleshooting

Please contact Sandel Product Support if there are any questions with this procedure:

Phone: 877-726-3357 or 760-727-4900 ext. 2

Email: [support@sandel.com](mailto:support@sandel.com)