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ST3400 TAWS
Instructions for ST3400 Software Update to A3.15

Date: April 28, 2016
Regarding: A3.15 Software Update
Revision: A – Initial Release

Introduction
This document describes the procedure to update an ST3400 to software version A3.15

Compatibility
Software version A3.15: ST3400 units with serial numbers 2000 through 6-7349

Hardware Requirements
Windows XP or later PC with available USB port
USB to mini-USB interface cable, Sandel part number 88114 or equivalent

Upload Instructions
1. If the ST3400 has been removed from the aircraft for updating, ensure that the configuration module is plugged into the back of the unit.

2. With power removed from the ST3400, connect the ST3400 to the PC via the USB cable.

3. Power up the ST3400 in maintenance mode. This is done by holding down the BRG1 and BRG2 keys on the ST3400 while applying power. Continue to hold down the two keys until the display is visible.

4. If a message 'Found New Hardware' appears, follow the instructions for loading the USB driver in Appendix A of these instructions.

5. Open Windows Explorer and locate the **Sandel_Uploader_3.07.exe** file. The default location will be in 'C:\Sandel\ST3400_Software_A3_15'. Double click on the Sandel_Uploader_3.07.exe file to start.

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6. The Sandel Uploader Setup screen will appear. (Example with A3.15 software below.) Select the option for **'Write new System Software to Unit'**.
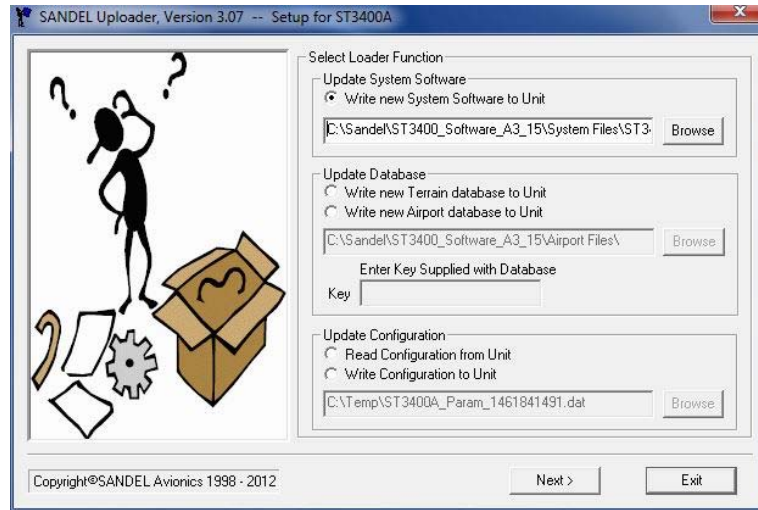

7. Click on 'Browse' and locate the file 'ST3400A_A3_15.hex'. Highlight the file and click on 'Open'. The default location for this file is 'C:\Sandel\ST3400_Software_ A3_15\System Files'.

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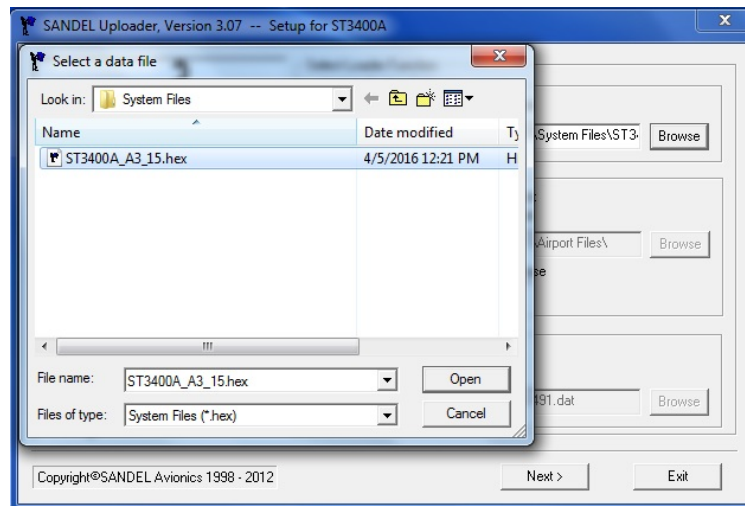
8. Verify that the file 'ST3400A_ A3_15.hex' is shown in the selection window and then click on 'Next'.
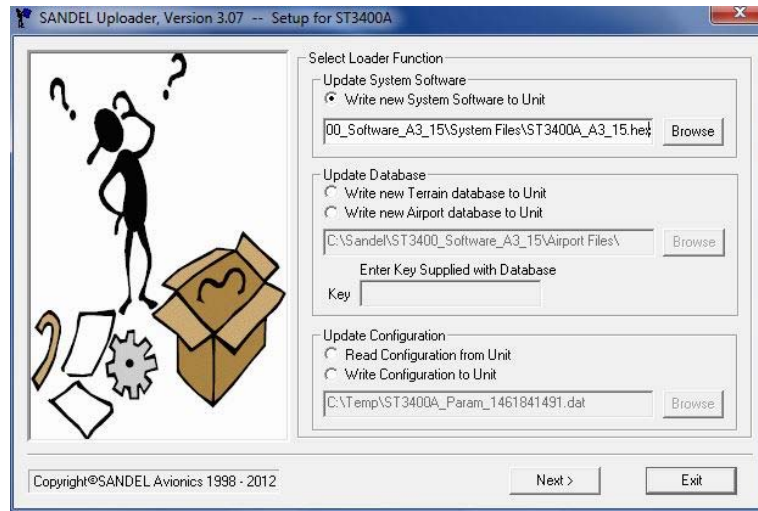
9. A message that the program is initializing communications with the unit will appear for several seconds.

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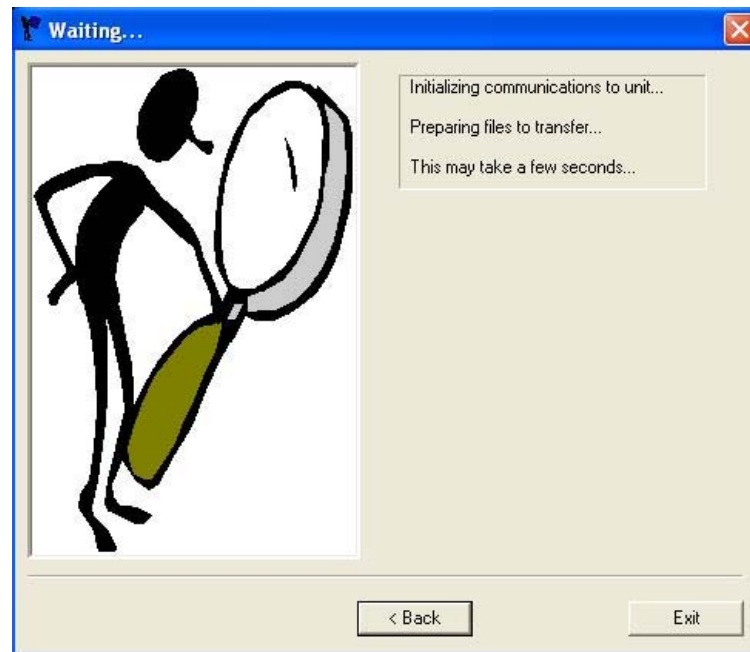
10. If a message 'Software to be loaded is not compatible with attached unit' is shown, verify that the correct software version was downloaded for the unit to be updated and restart this process from the beginning if necessary:

Software version **A3.15** for serial numbers 2000 through 6-7349

11. Once communication is established, the software file will be transferred to the ST3400. Do not remove power or disconnect the cable until 'Software System Load Complete' is shown.
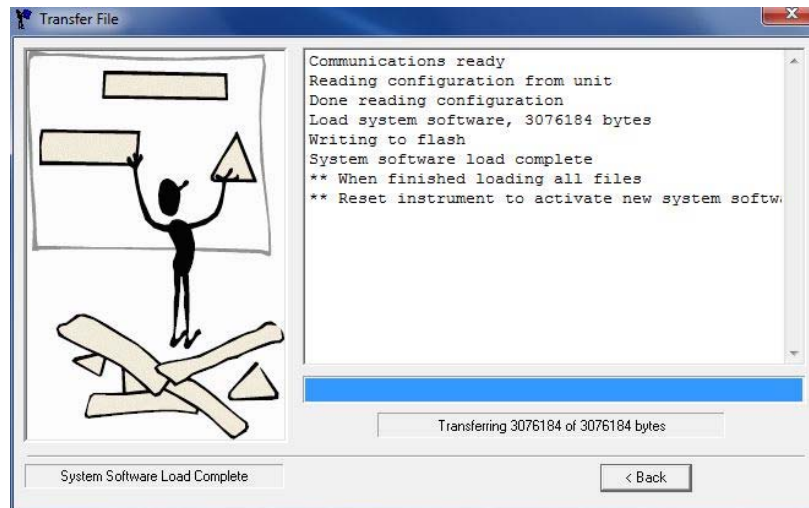
12. Close the program by clicking on the red 'X' at the top right of the program window. The USB cable can now be removed and the ST3400 powered down.

13. Power up the ST3400 in maintenance mode. Depending on the previous version of software, the CONFIG MODULE STATUS may be shown. If so, press the ST3400 TO CM (UP ARROW key) shown below to re-write the unit settings to the configuration module:

Then press YES (RMI key) to confirm the action:

14. On Page 2, verify that the Software Rev is A3.15. On Page 16, SFTWR CRC, press the RMI key on the ST3400 to update the CRC codes. Verify that all fields show Pass.

15. Verify that the configuration settings on Pages 2 through 14 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: +1-760-727-4900 ext. 2
        Email: support@sandel.com
        Web: www.sandel.com

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Appendix A
Sandel SN3500, SN4500, SA4550 and ST3400 USB Driver Installation Instructions

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Introduction
This document includes instructions for installing the USB driver for the Sandel SN3500, SN4500, SA4550 and ST3400 which utilize a USB interface. This enables the updating of software and databases through the USB port located on the front bezel of the units.

Note: This procedure does not apply to the SN3308 EHSI as that product requires a serial interface.

Hardware Requirements
- PC with Microsoft Windows 7, Vista or XP with available USB port.
- USB to mini-USB interface cable, Sandel part number 88114 or equivalent

USB Driver Installation Instructions
It is necessary to install a USB driver the first time a Sandel unit is connected to a PC via the USB interface. The procedures are slightly different for each version of Windows and are described separately on the following pages.

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## Windows 7 64-bit USB Driver Installation

1. With power removed from the Sandel unit, connect the unit to the PC via the USB cable.

2. Power up the Sandel unit in maintenance mode. This is done by holding down the appropriate keys while applying power. Continue to hold down the keys until the display is visible.

3. The computer will attempt to automatically find and install a USB driver however it will respond an error message as shown below. (SN3500 example used for illustration.) Close the window and proceed to the next step.

4. Click on the start icon at the lower left of the desktop and type 'device manager' in the search box. Click on the 'Device Manager' program when it appears at the top of the start window as shown below.
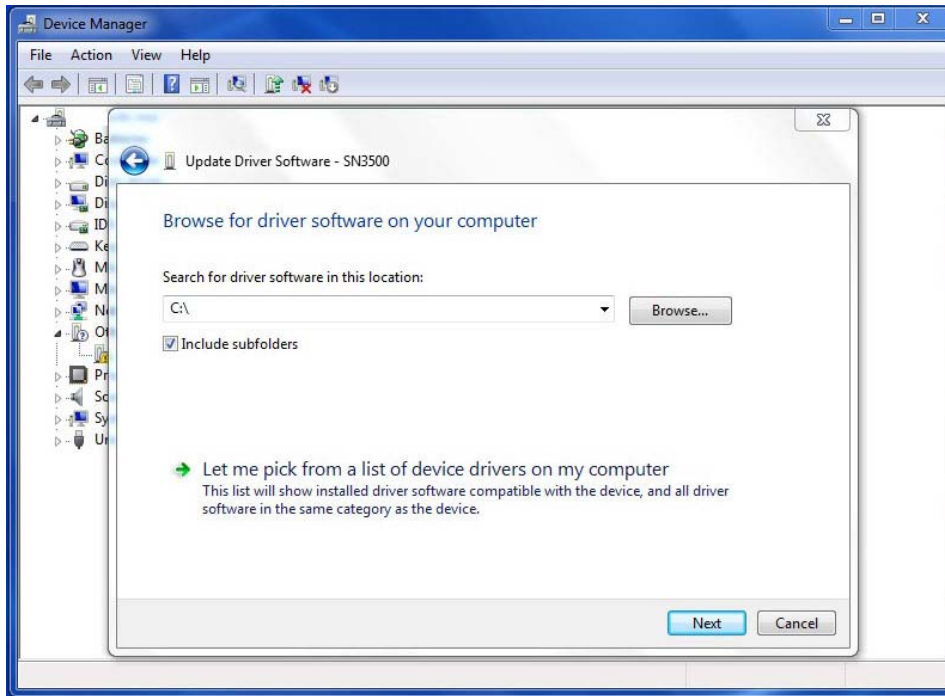
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5. On the Device Manager window, double-click on 'Other devices' and then right-click on 'SN3500' (or SN4500/ST3400 as appropriate). Then click on 'Update Driver'.
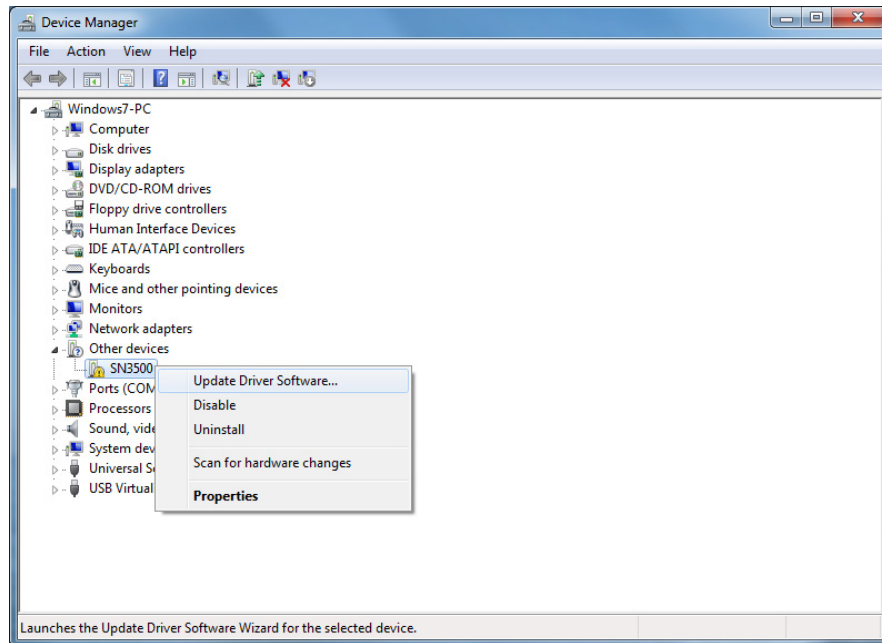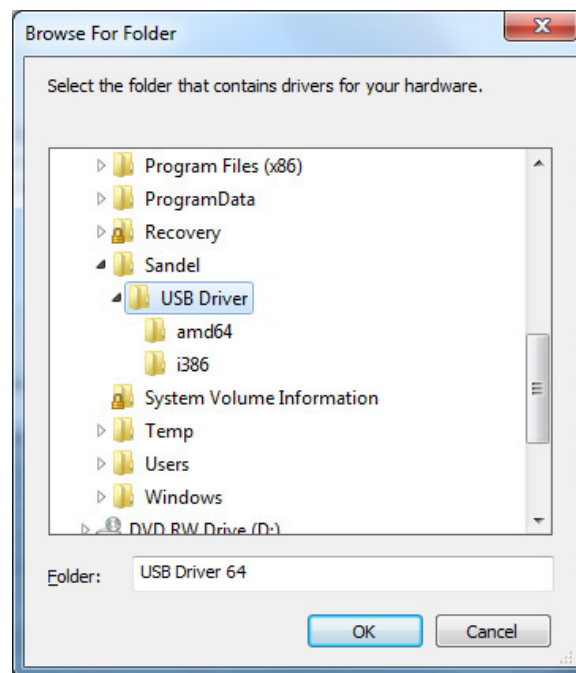

6. The Update Driver Software window will appear. Click on 'Browse my computer for driver hardware'.
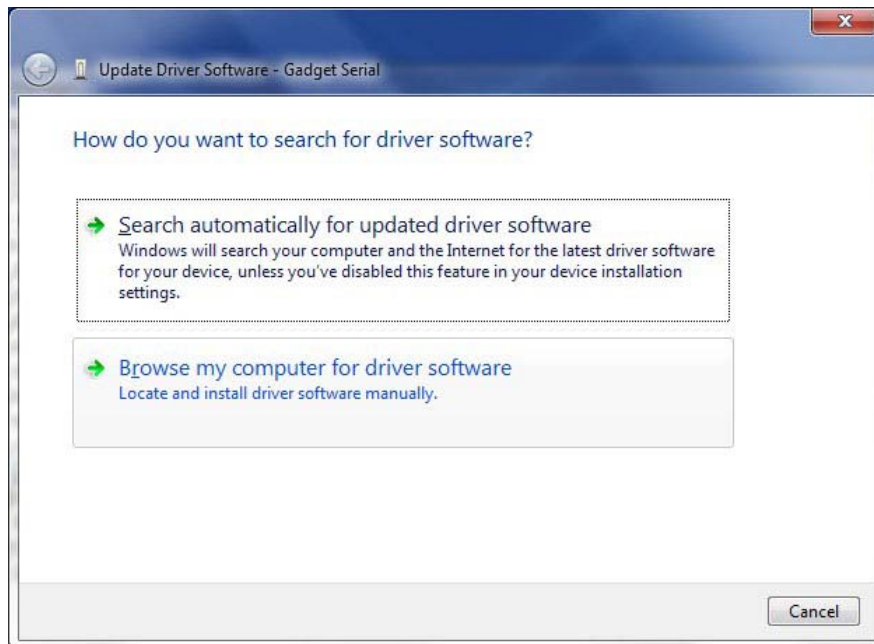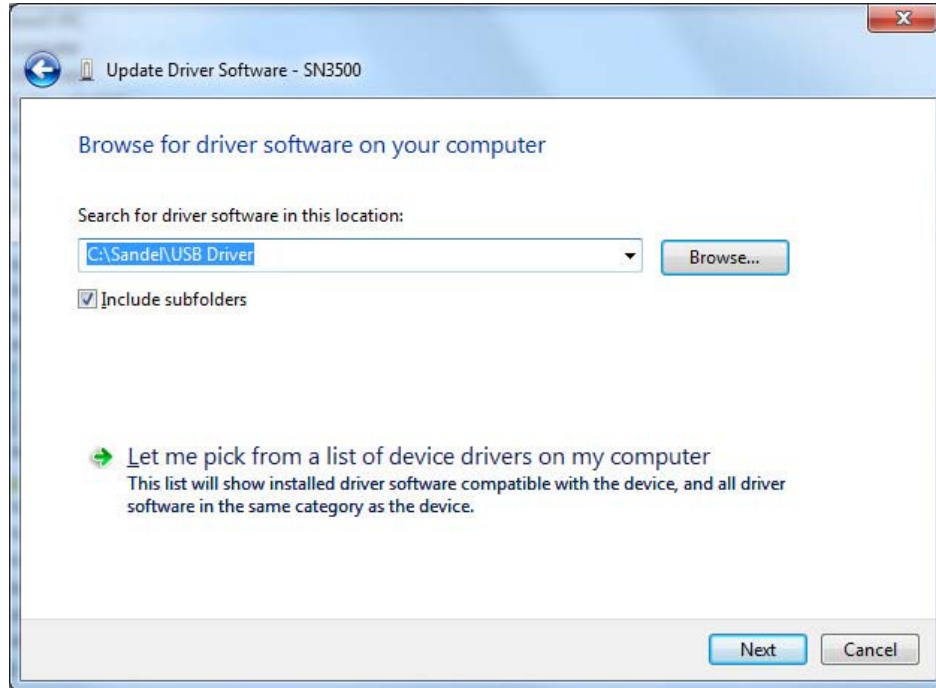
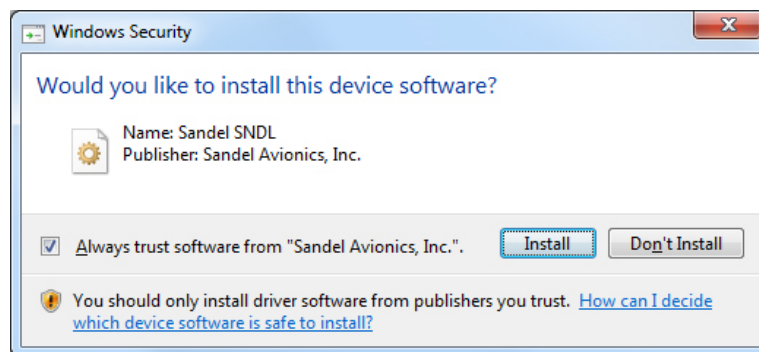7. The Browse for driver software on your computer will be shown. Click on 'Browse'.

8. Select the Sandel USB Driver folder. The default location is 'C:\Sandel\USB Driver'. Click on 'OK'.
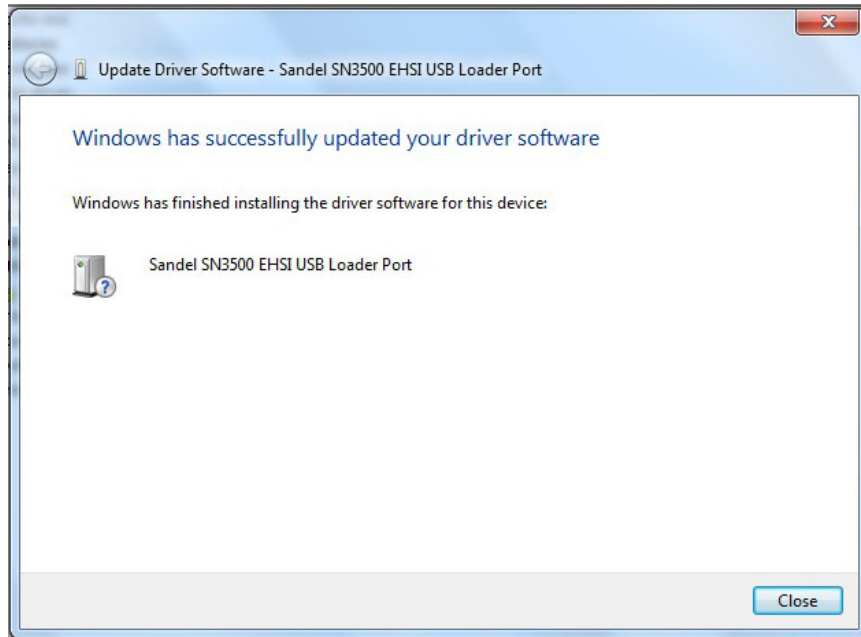
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9. The USB Driver folder will be shown in the selection window. Click on 'Next'.

10. If a window appears asking 'Would you like to install this device software?' click on 'Install'.
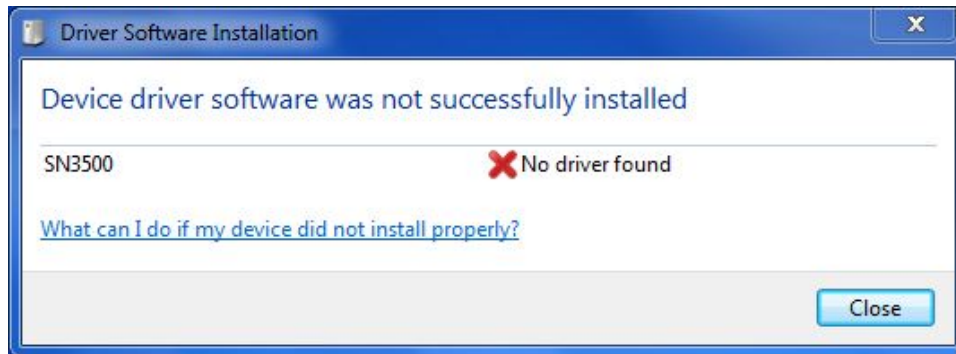
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11. Windows will install the driver and display the message 'Windows has successfully updated your driver software' when complete. Click on 'Close' to complete the process.
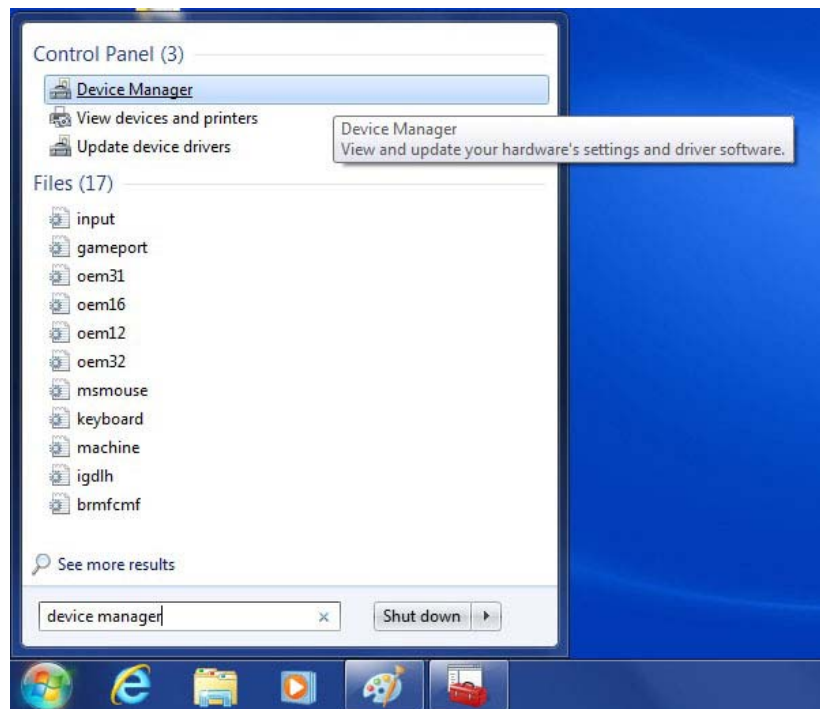
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## Windows 7 32-bit USB Driver Installation

1. With power removed from the Sandel unit, connect the unit to the PC via the USB cable.

2. Power up the Sandel unit in maintenance mode. This is done by holding down the appropriate keys while applying power. Continue to hold down the keys until the display is visible.

3. The computer will attempt to automatically find and install a USB driver however it will respond an error message as shown below. (SN3500 example used for illustration.) Close the window and proceed to the next step.


4. Click on the start icon at the lower left of the desktop and type 'device manager' in the search box. Click on the 'Device Manager' program when it appears at the top of the start window as shown below.
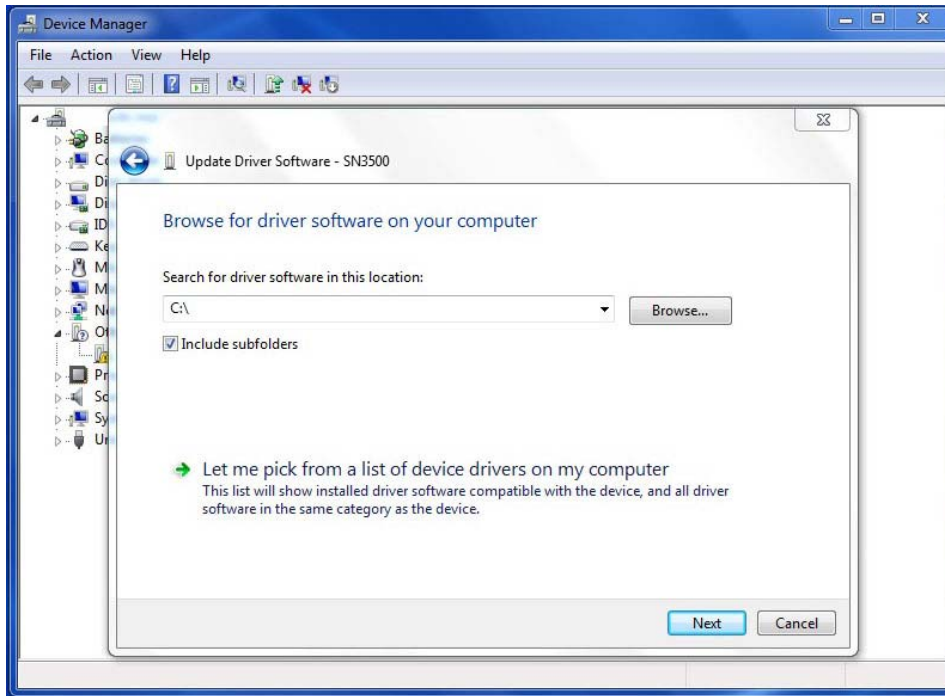
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5. On the Device Manager window, double-click on 'Other devices' and then double-click on 'SN3500' (or 'SN4500' or 'ST3400' as appropriate) to bring up the properties window for that device. Then click on 'Update Driver'.
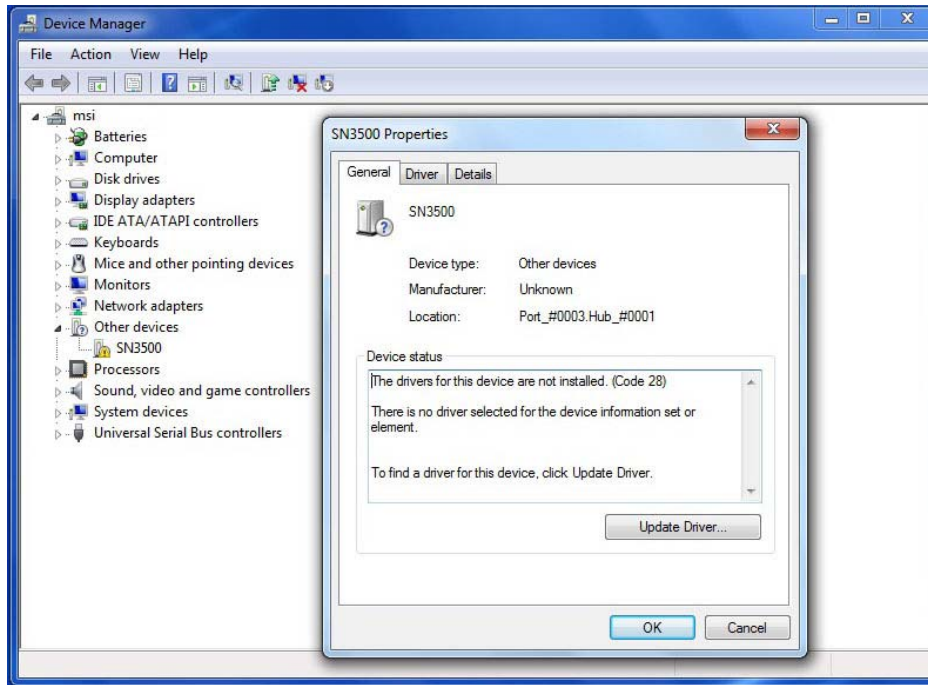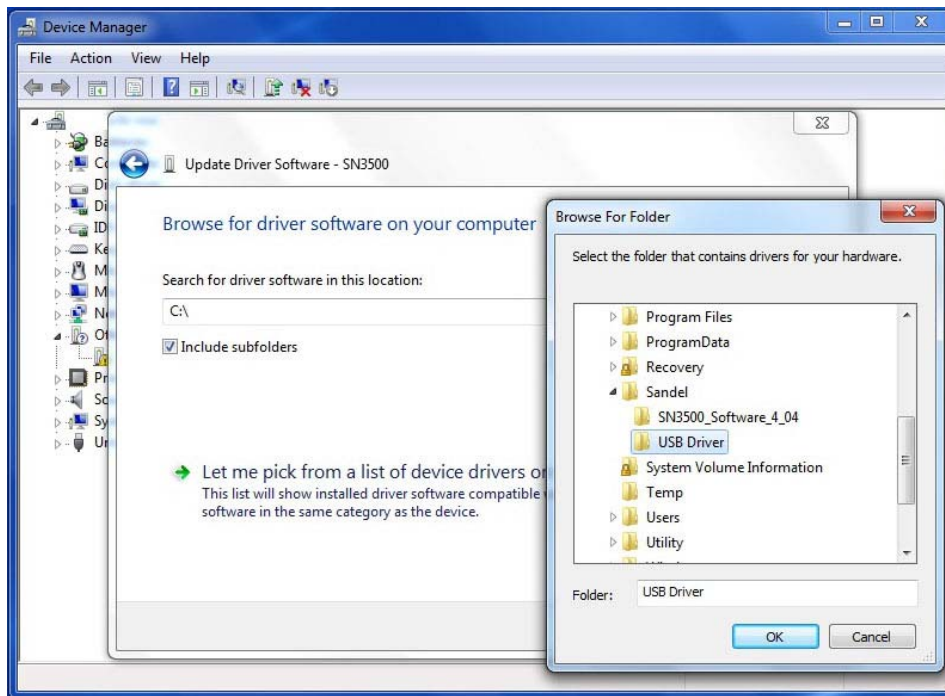

6. The Update Driver Software window will appear. Click on "Browse my computer for driver hardware'.
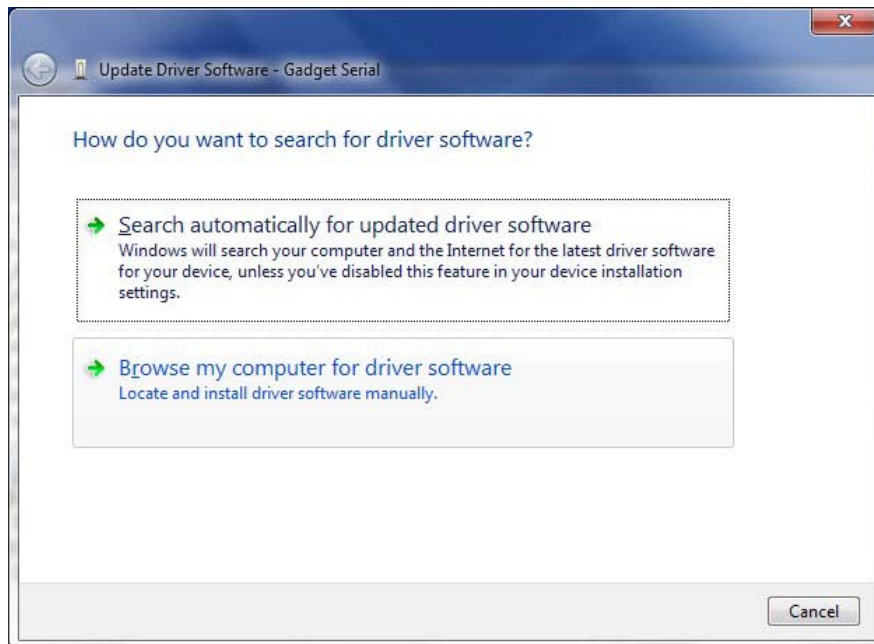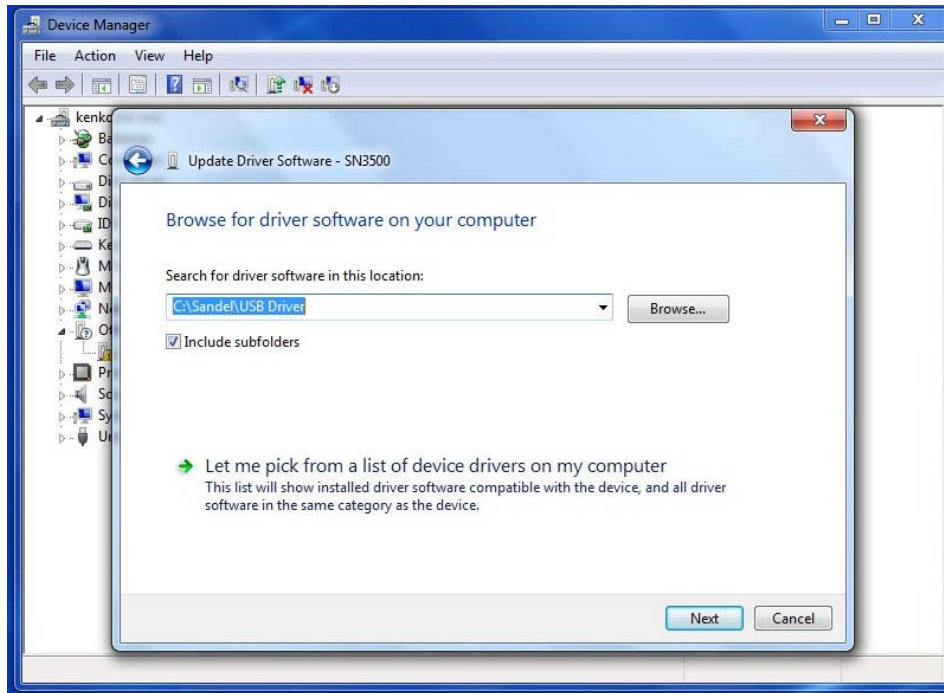
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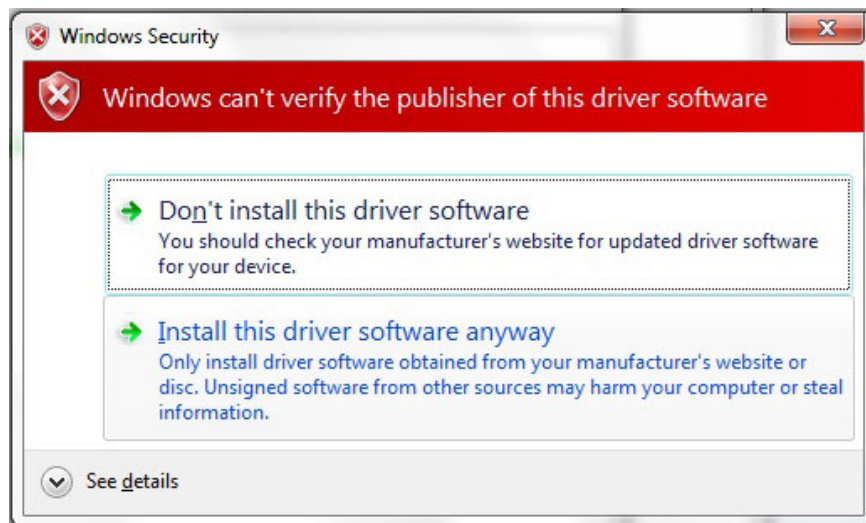7. The Browse for driver software on your computer will be shown. Click on 'Browse'.

8. Select the Sandel USB Driver folder. The default location is 'C:\Sandel\USB Driver'. Click on 'OK'.
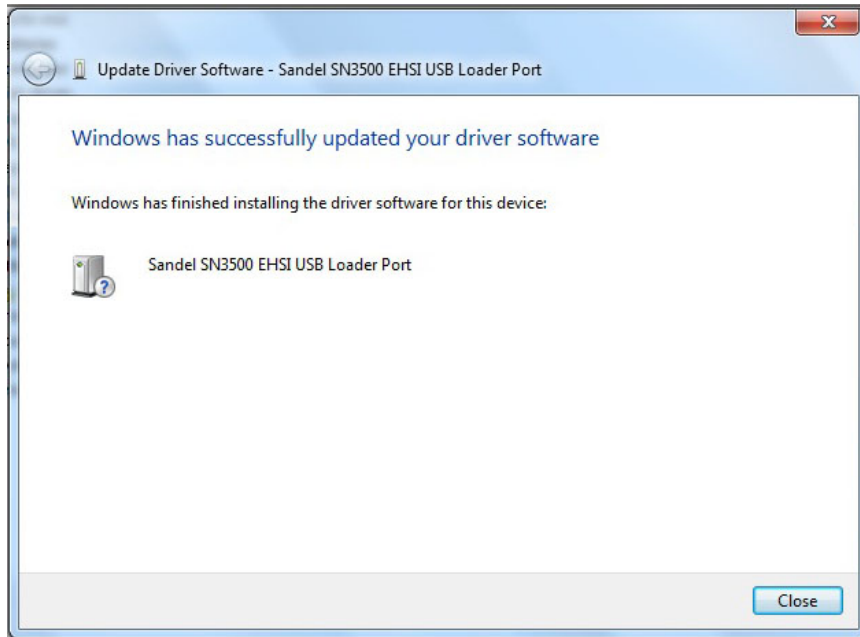
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9. The USB Driver folder will be shown in the selection window. Click on 'Next'.

10. If a warning message appears, click on 'Install this driver software anyway'.

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11. Windows will install the driver and display the message 'Windows has successfully updated your driver software' when complete. Click on 'Close' to complete the process.

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## Windows Vista USB Driver Installation

1. With power removed from the Sandel unit, connect the unit to the PC via the USB cable.

2. Power up the Sandel unit in maintenance mode. This is done by holding down the appropriate keys on the unit while applying power. Continue to hold down the keys until the display is visible.

3. A message 'Windows needs to install driver software' will appear. (Example using the SN3500 is shown below.) Click on 'Locate and install driver software'.
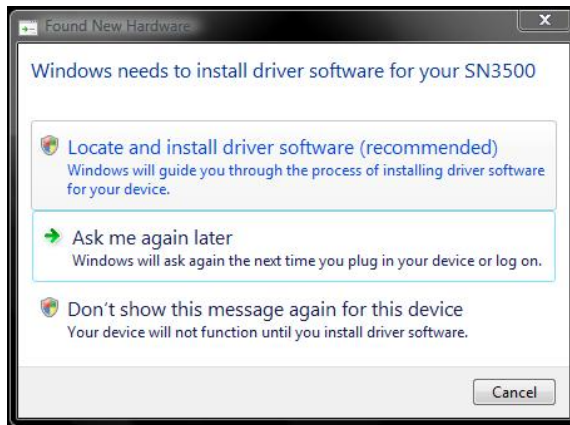

4. A message 'Windows needs your permission to continue' will appear. Click on 'Continue'.

5. A message 'Installing device driver software' will appear at the lower right. No action is necessary.

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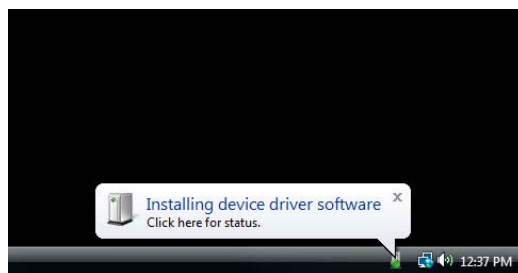
6. After several seconds, Windows will prompt to 'Insert the disc'. Click on 'I don't have the disc. Show me other options.'
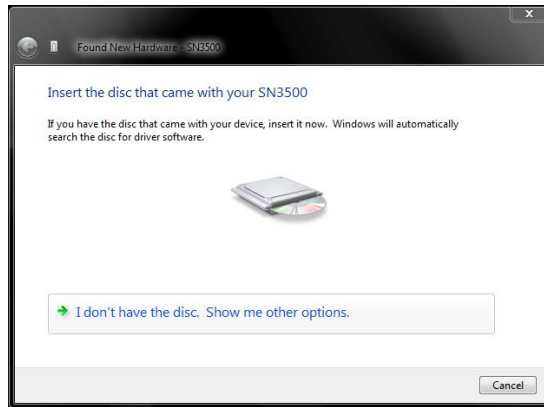
7. A message 'Windows couldn't find driver software for your device' will appear. Click on 'Browse my computer for driver software'.
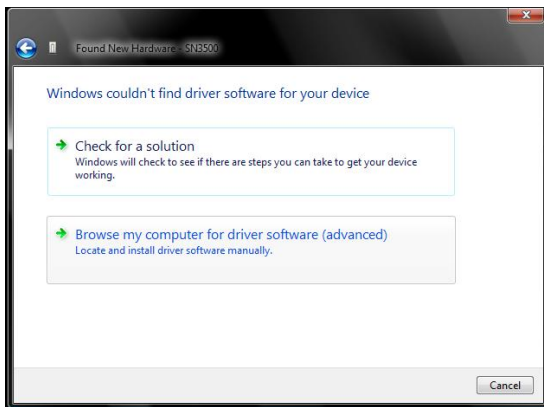

8. Windows will ask for the location of the driver. Click on 'Browse' to select the folder which contains the file 'ST3400.inf'. The default location is C:\Sandel\USB Driver'. Click on 'Next'.

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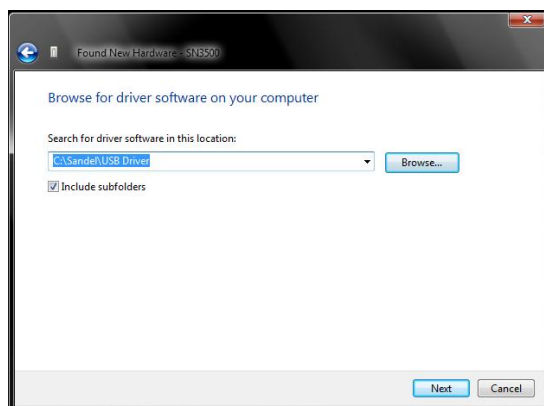
9. A warning message 'Windows can't verify the publisher of this driver software' will appear. Click on 'Install this driver software anyway'.

10. Windows will install the driver. This will take several seconds. After successful installation of the driver click on 'Close' to complete the process.
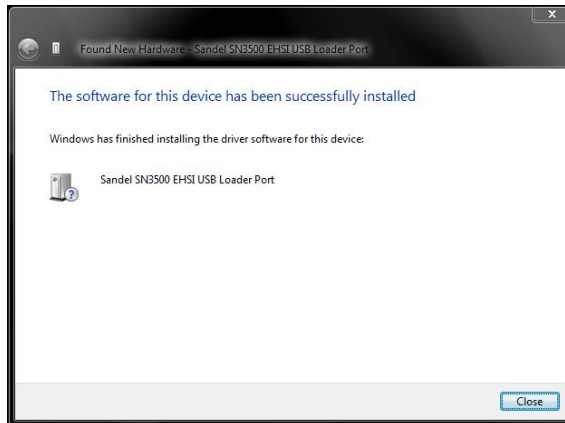
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## Windows XP USB Driver Installation

1. With power removed from the Sandel unit, connect the unit to the PC via the USB cable.

2. Power up the Sandel unit in maintenance mode. This is done by holding down the appropriate keys on the unit while applying power. Continue to hold down the keys until the display is visible.

3. A message 'Found New Hardware' will appear. (Example using the SN3500 below.)


4. The Found New Hardware Wizard will start. Select the option 'No, not this time' and click on 'Next'.

5. Windows will ask if it should install the software automatically or install from a list or specific location. Select the option 'Install from a list or specific location (Advanced)' and click on 'Next'.

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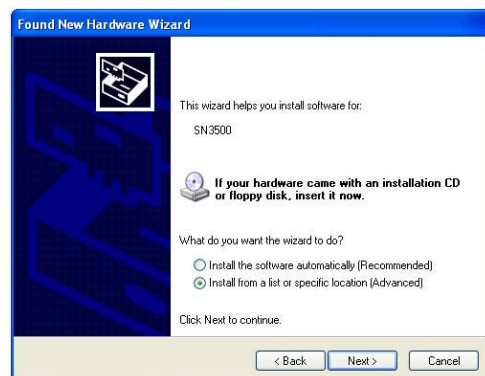
6. Windows will ask for the location of the driver. Select the option ' Search for the best driver in these locations' and check the box 'Include this location in search:'. Click on 'Browse' and select the folder that contains the file 'ST3400.inf'. The default location is 'C:\Sandel\USB Driver'. Click on 'Next'. (Note: ST3400.inf is used for all Sandel models.)
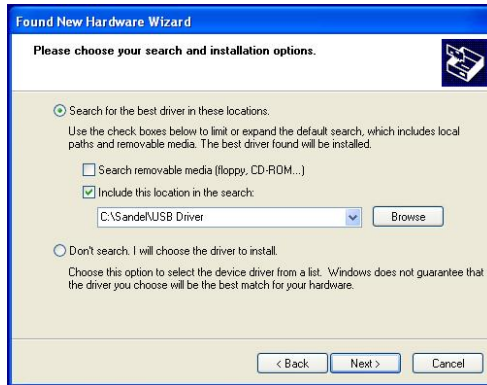
7. Windows will locate and install the necessary driver.

8. The driver has been installed. Click on 'Finish' when complete.

END OF USB DRIVER INSTALLATION INSTRUCTIONS