

SANDEL®

SG102 AHRS Software Loader Utility



User Guide

Rev A1, 6/26/2009

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Revision History

Revision	Date	Comments
A1	6/29/09	A/R 1071, Typos
A	6/26/2009	A/R 1071; Initial Release

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Introduction

The SG102 Software Loader Utility is a Windows application program which runs on a laptop or PC. When used in conjunction with the SG102 Maintenance Adapter it uses the computer USB port to upload new software into the SG102 for compliance with applicable Service Letters or Service Bulletins.

Note: The SG102 Maintenance Adapter drivers must be installed on the PC first. See the Maintenance Adapter User Guide.

The Software Loader Utility is used to load operating software into the SG102 only. It is not used for installation/calibration of the SG102. For installation/calibration, see the “SG102 Installation/Calibration Utility User Guide”.

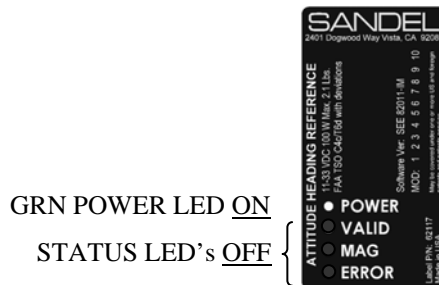
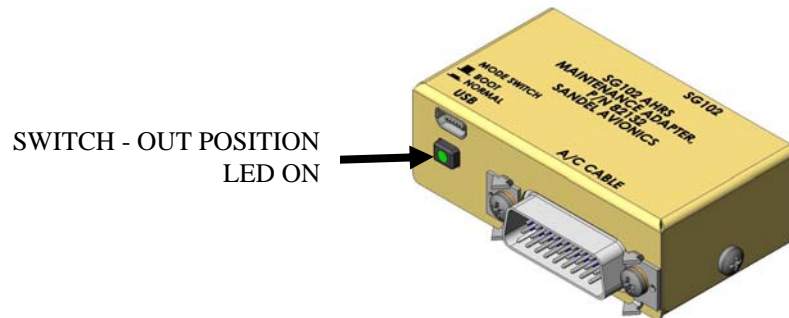
SG102 Software loading may be done on the bench or while installed in the aircraft. Software loading will have no effect on previous calibrations or adjustments made to the SG102/MT102 System.

Related Information

Description	SPN
SG102 Maintenance Adapter	82132
SG102 Maintenance Adapter Users Guide	82132-UG
USB Cable	88114
SG102 Software Support CD	82011-INCD

Connect the SG102 AHRs Maintenance Adapter

- 1) Follow the instructions in the SG102 Maintenance Adapter User Guide for installation of the USB serial port drivers if this has not been done.
- 2) Ensure that the switch is in the OUT position for software loading. The green LED in the switch will be ON when the USB connector is attached.
- 3) When the SG102 is powered up only the POWER LED will illuminate – the other 3 LED's will be OFF prior to and during the load operation.



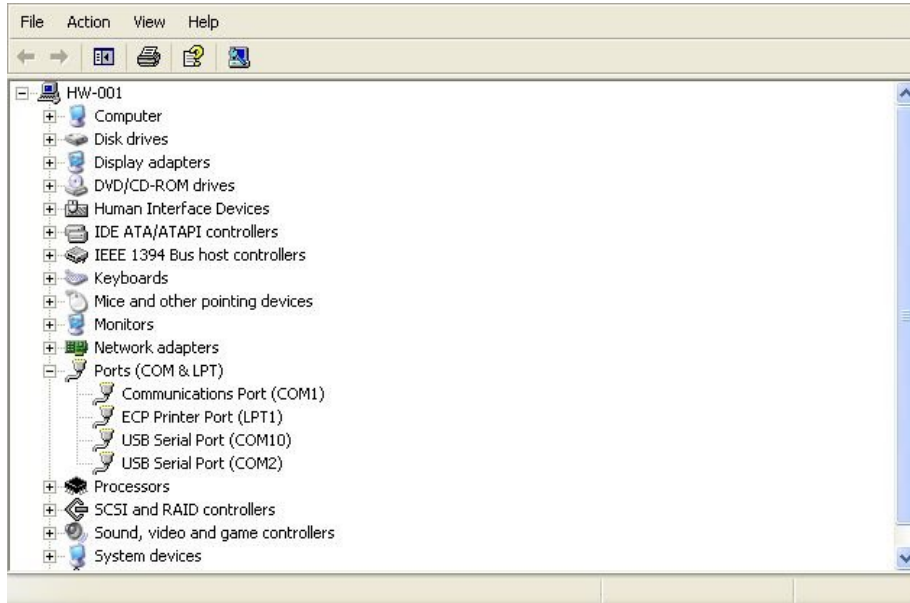
PROPER LOAD INDICATIONS

Verify COM Ports

The following steps are required to verify the settings of the USB COM port

- 1) Plug the USB cable into the Maintenance Adapter and Computer.
- 2) Click the Windows “Start” button and right-click “My Computer”.
- 3) Select “Properties” from the context menu that appears.
- 4) Select the “Hardware Tab” and click “Device Manager”.

- 5) By clicking the “+” symbol just to the left of “Ports”, you can expand the Port listing

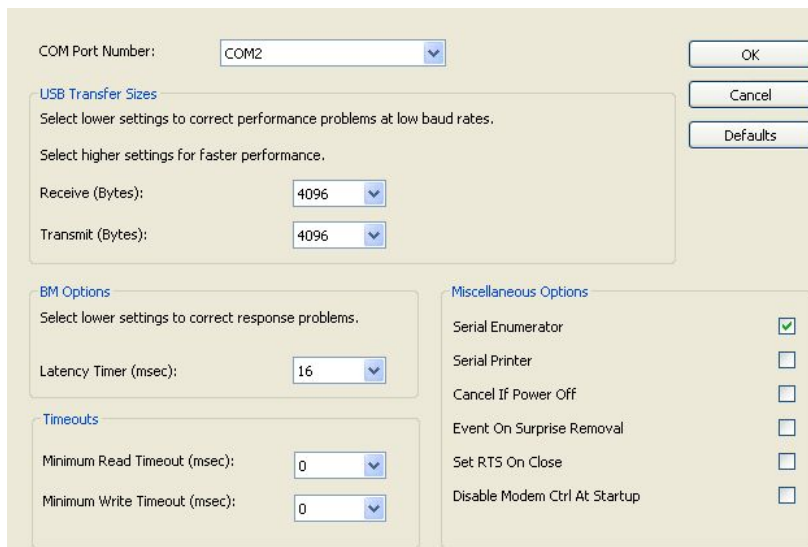


- 6) Note the “USB Serial Port” entries. These will typically default to COM 2 and COM 10.

- 7) Right-click the “USB Serial Port” entry with the lower COM address and select Properties from the context menu.



- 8) Click on the “Port Settings” tab and change the “Bits per second” to 38400 and “Flow control” to None.
- 9) Click the “Advanced...” button.



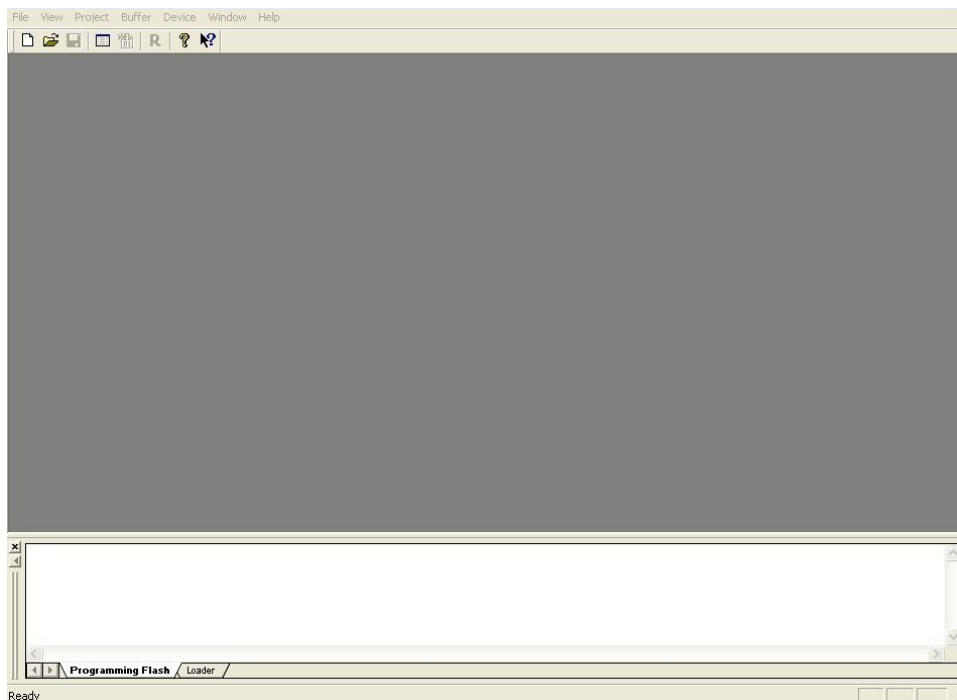
10) Set the “COM Port Number:” to either COM 1, COM 2, COM 3 or COM 4.

Note: The SG102 Software Loader currently defaults to COM 2. You may force an assignment to COM 2, provided no other device is currently connected to that Port.

Loading SG102 Software

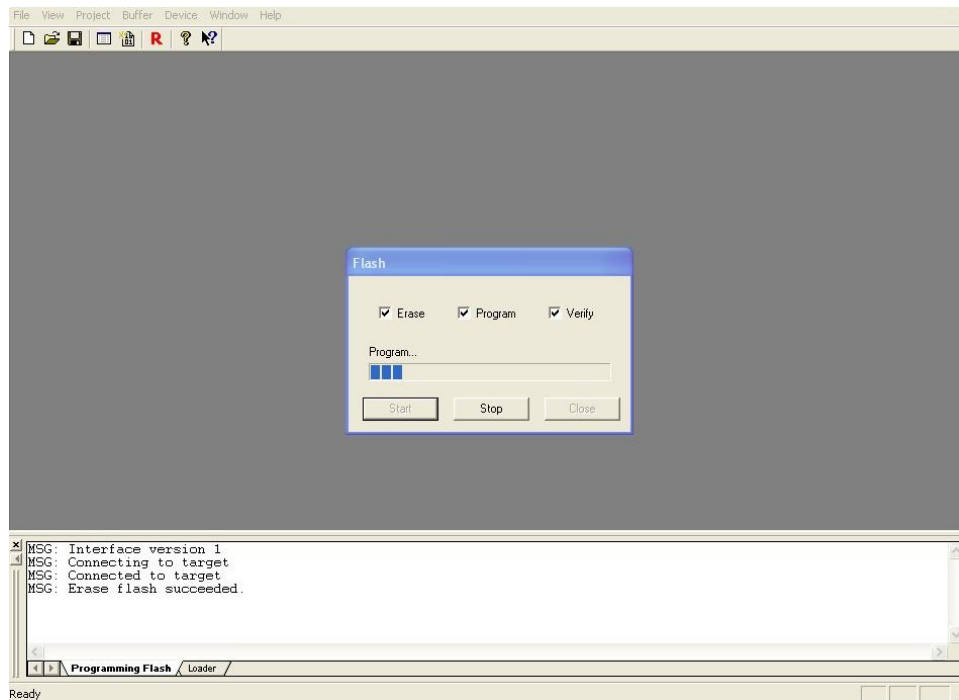
The SDFlash Load Utility is installed for this purpose.

- 1) On the Software Installation CD, locate the SDFlashFiles folder and copy it to the local desktop.
- 2) Open the SDFlashFiles folder and double-click “Install.bat”. A command prompt will appear. Press “y”, then “Enter”. After a few moments the command prompt will disappear.
- 3) The necessary files should be installed now. To invoke the SDFlash utility, navigate to c:\SDFlash\bin and double click “SDFlash.exe”.

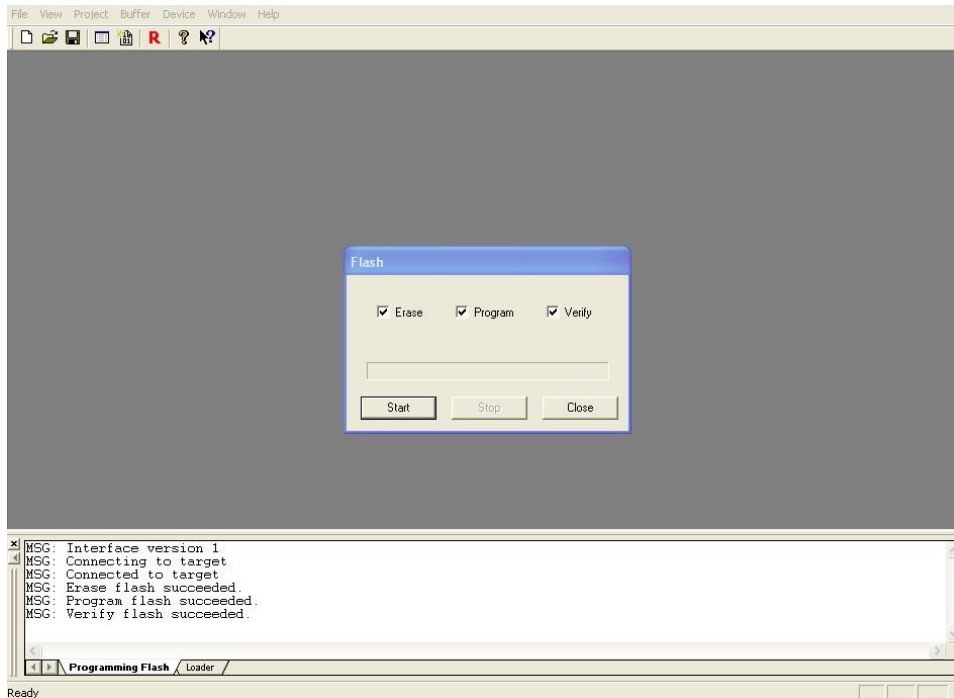


- 4) In the SDFlash utility, click “File” → “Open Project...”
- 5) Locate and “Open” the file:
“C:\sdf\myprojects\sdf28xx_v3_1_serial\2812\F2812SerialFlash.sdp”

- 6) NOTE: If your “USB Serial Port” was assigned COM 2, please skip to Step 9. If your “USB Serial Port” was assigned COM 1, COM 3, or COM 4, then you must modify the Project.
- 7) In the SDFlash utility, click “Project” → “Settings...”
- 8) On the “Target” tab change the “Emulator Address/Id:” to “C1” (COM 1), “C3” (COM 3) or “C4” (COM 4) depending on which address your COM port was assigned.
- 9) Make sure the SG102 power is OFF. Make sure the MODE switch is in the BOOT (out) position before the SG102 is powered on. Then Power on the SG102.
- 10) Select “Device” → “Flash...”
- 11) Click “Start”.
- 12) During the Flash, the SDFlash Screen should look like this.



- 13) It may take up to 4 minutes for connection to be established. In the “Programming Flash” message window, if the message “ERR: Failed connection to the target” appears, check the COM port settings as described earlier in this document. A Successful Flash should look like this:



- 14) Power OFF the SG102. Place the BOOT mode switch in the NORM (in) position.
- 15) Run the SG102 Installation Software to verify the new software version. If a valid load was not successful the SG102 may fail to power up normally or may simply never go valid.

Troubleshooting

I can't run the “install.bat” file. When I double-click, nothing happens.

Sometimes, either user permissions or an aggressive internet security suite might block the execution of the batch files. In that case, it will be necessary to manually copy the SDFlash files to your computer:

- 1) Copy the SDFlash folder to your C: drive.
- 2) Copy the sdopts.cfg and sdtsrv.dll files to your system32 folder (typically, “c:\windows\system32”).
- 3) The SDFlash program can be launched by navigating to the “C:\SDFlash” folder and double-clicking on sdfash.exe.

For further assistance with this procedure, please contact Sandel Product Support:

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

Email: support@sandel.com