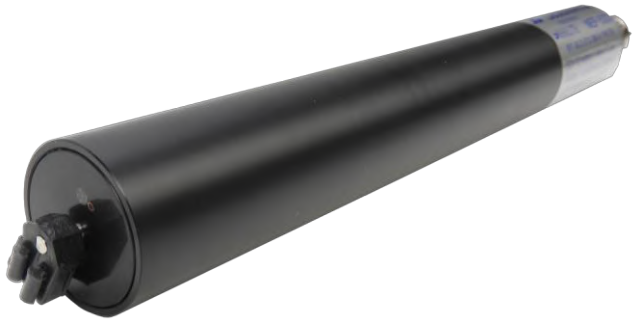

Application note

NEP-5000 firmware updating procedure

Version: 20200305
Status: Final
Confidentiality: Not confidential
Date: 05 March 2020
Author: Ludovic Grosjean

Document history

The Observator range is in continuous development and so specifications may be subject to change without prior notice. When in doubt about the accuracy of this document, contact the Observator Group.

Reference documents

Type of document / tool	Product type and name (incl. url)
Software	NEP-5000
CFG files	NEP-5000
Datasheet	NEP-5000
Manual	NEP-5000
Application notes	NEP-5000-SDI12 option with Campbell logger
	NEP-5000-SDI12 option for H-522+ & H-500XL loggers
	NEP-5000-SDI12 option with Hydrospider logger
	NEP-5000-SDI-12, RS485 and analogue: wiper operations
	NEP-5000 multi-point calibration
	NEP-5000 firmware updating procedure
	Pressure calibration
	Shroud installation
	Temperature calibration
	Wiper replacement

Revision history

Date	Amendments	Company, position
2018-03-11	Initial document creation	Observator Australia, Document Controller
2018-04-09	Introduced document control	Observator Australia, Document Controller
2019-04-12	Update reference to “driver” for NEP-5000 manual	Observator Australia, Document Controller
2019-07-03	Quality review	Observator Australia, Operation Manager
2020-01-30	Updated document format	Observator Australia, Document Controller

Procedure sign-off:

Date	Company, position	Status
2018-04-09	Observator Australia, Document Controller	Finished
2019-12-06	Observator Australia, Managing Director	Approved
2020-03-05	Observator Group, Communication Officer	Approved

Distribution list

Date	Company, position

Table of contents

1 Firmware updating procedure

This application note explains how to update the firmware on the NEP-5000 Analite series turbidity probes.

Connect the probe to your Windows machine and launch the Original Equipment Manufacturer (OEM) calibration software (refer to the section “Install calibration module driver" in NEP-5000 manual.

1. Press “Tools” from the bar and select “Firmware Programmer.”

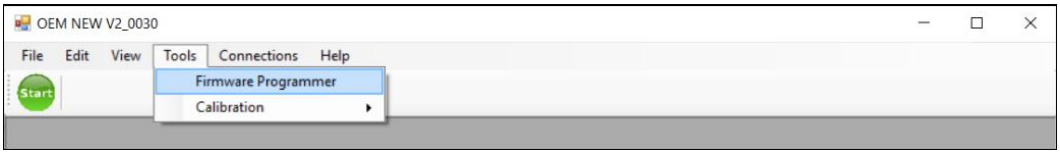

Figure 1.A: Select firmware programmer option

2. Ensure all the settings are the same as in the Figure 1.B.

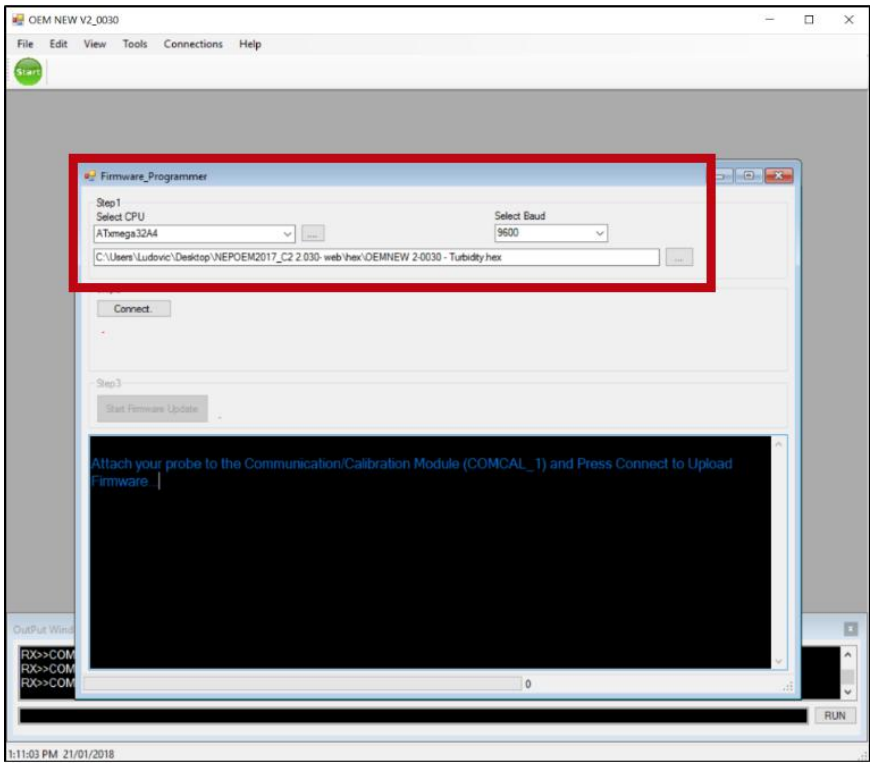

Figure 1.B: Verify the settings

Note: The path location for the hex file is:
[C:\NEPOEM2017_C2 2.030-web|hex|OEMNEW 2- 0030- Turbidity.hex].

3. Press “Connect” button and a pop-up window appears, press “ok”.

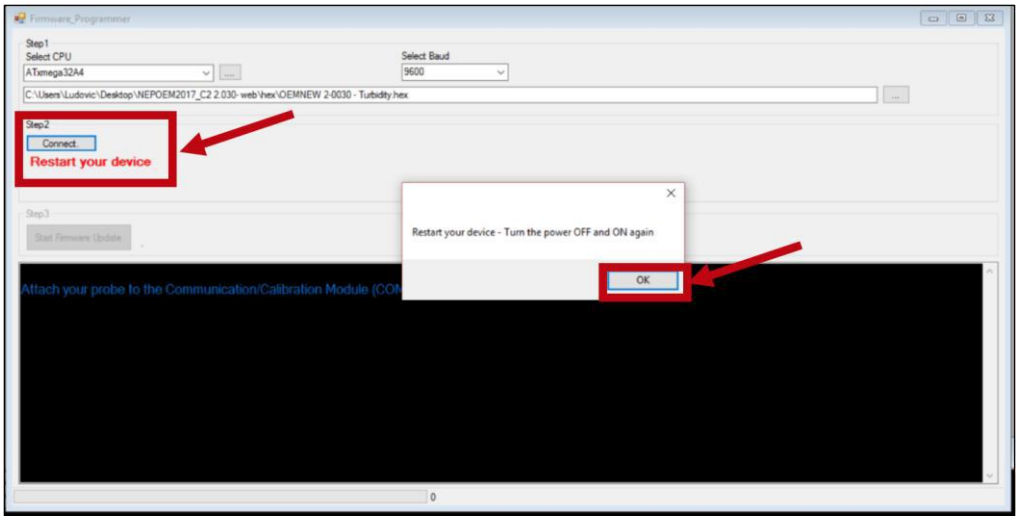

Figure 1.C: Connect to the probe

4. Hard press the “RESET” button on the calibration module (blue box) and the probe will be connected in Boot Loader Mode.

Figure 1.D: Calibration module reset

5. Press “Start Firmware Update” button.

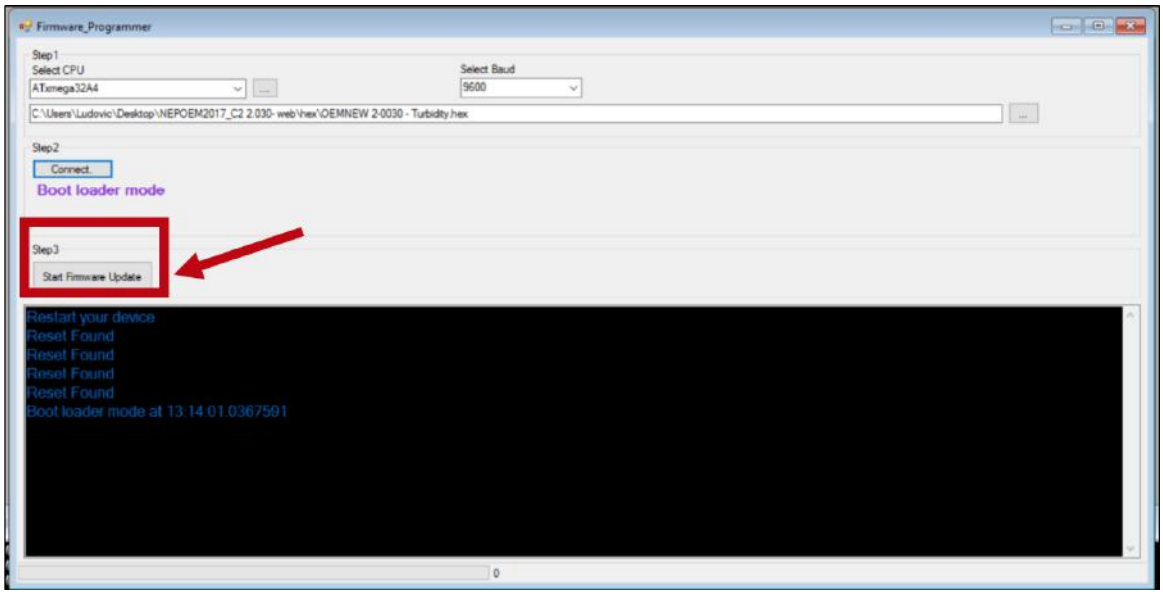

Figure 1.E: Select firmware update

Note: Make sure your computer does not go to sleep while performing the update.

6. Please wait until the firmware update is completed. This may take up to 12 minutes.

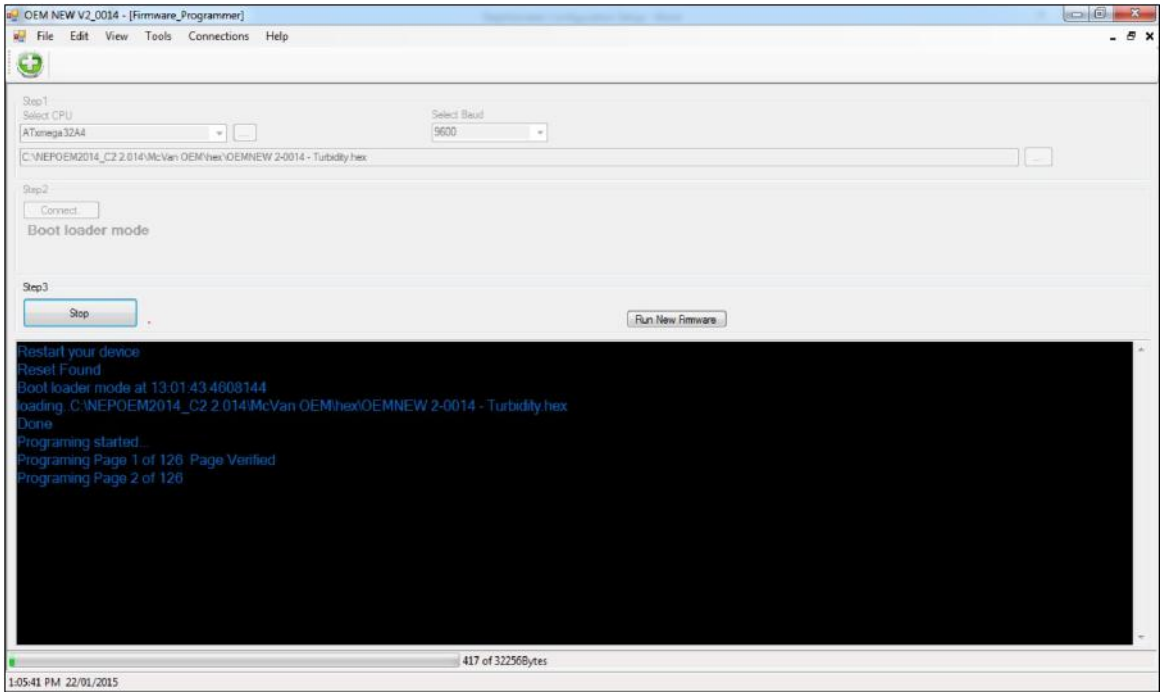

Figure 1.F: Firmware update screenshot

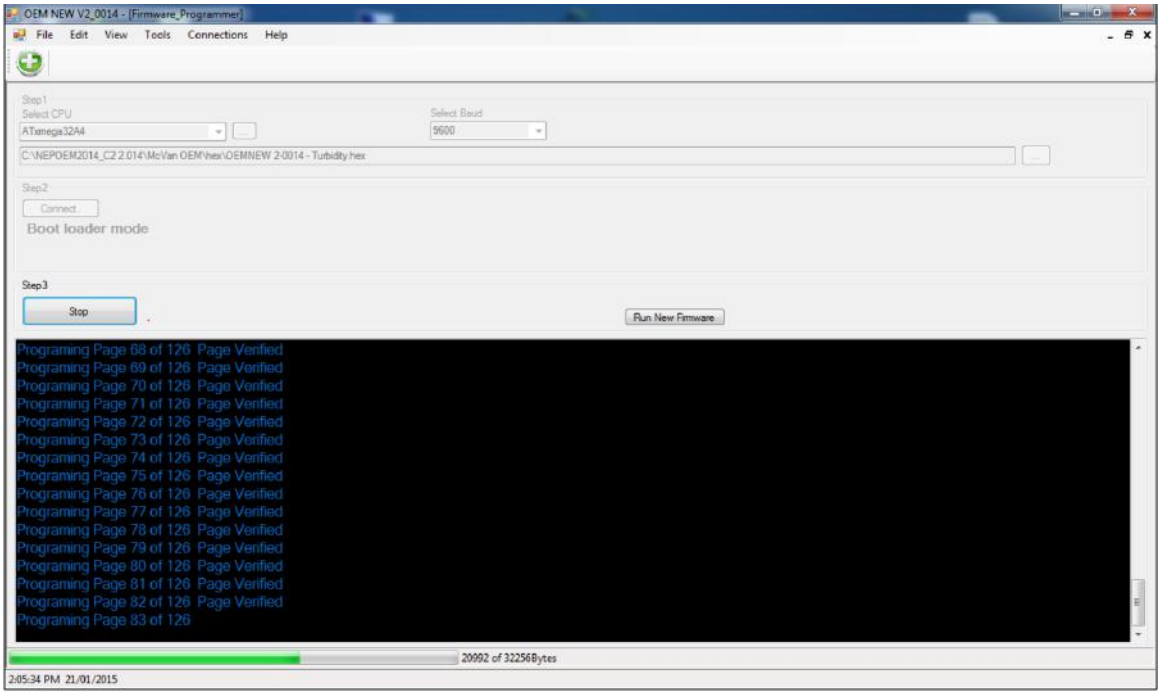

Figure 1.G: Firmware update screenshot

Note: After successful completion of the firmware update, the sensor requires that you reapply the factory calibration (the last good calibration) back to the sensor.

7. Download the factory calibration files from the Analite website based on your probe serial number. Right click and select “download link as CFG”:

Note: To download a single file from the list, right click and select "Save Link as”. Make sure you select Save as Configuration (CFG) format. You can also use the "find or search" tool in your browser to locate files.

8. To reapply the previous good calibration, select “Import from file” to load calibration data from the sensors [serial number] CFG file.

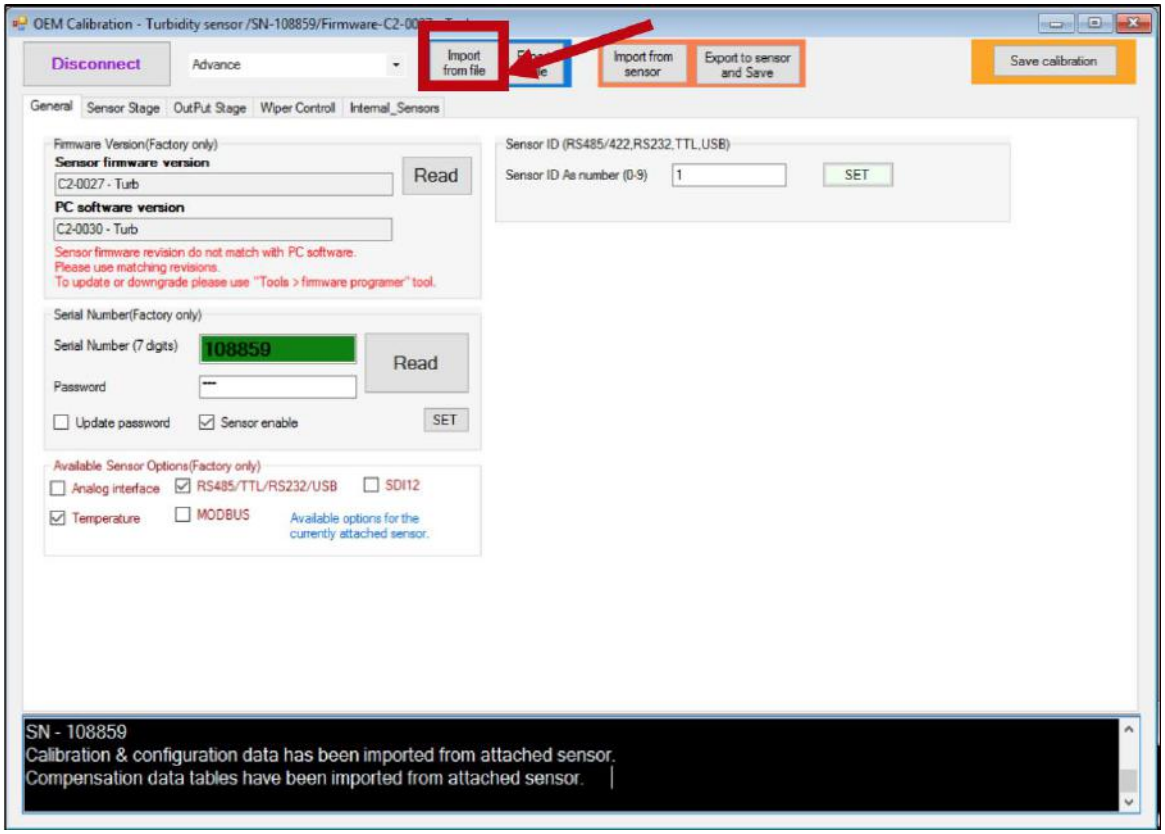

Figure 1.H: Import calibration file

9. Select the correct CFG file according to the serial number.

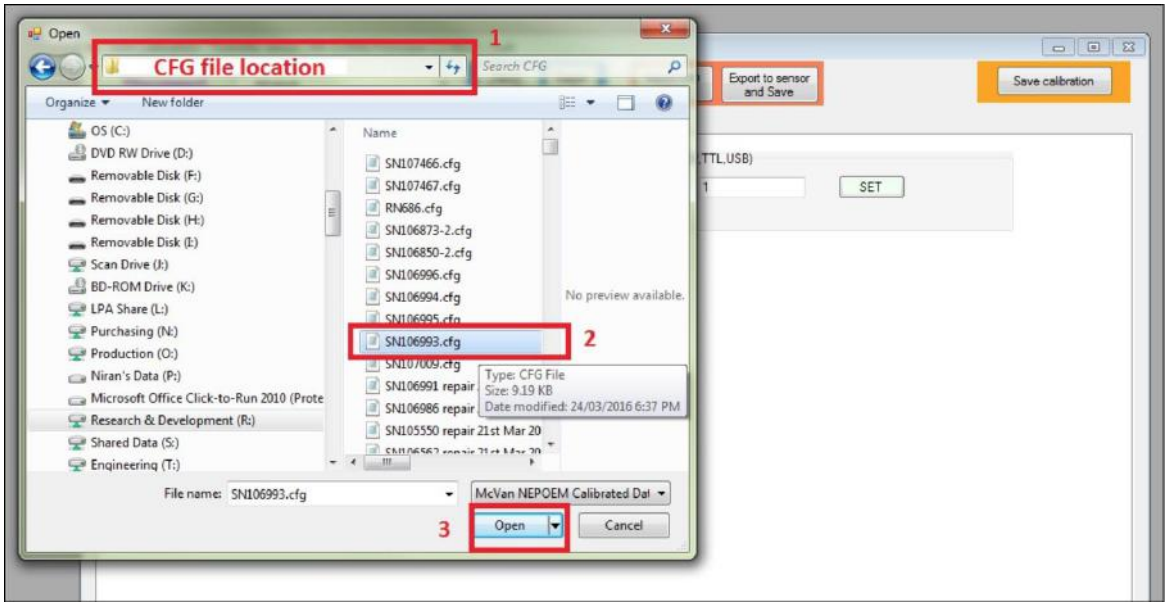

Figure 1.I: Select calibration file

10. After opening the file, the software will display its basic file information on the screen. Please verify this information and press “OK”.

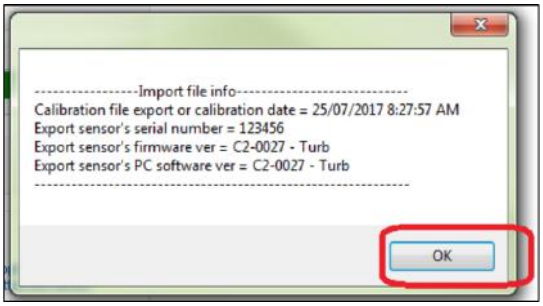

Figure 1.J: Import file information

11. Then press “YES” to upload imported file data to the sensor and save.

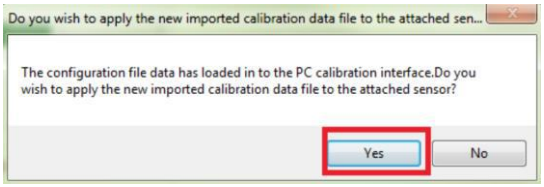

Figure 1.K: Apply changes

12. Please wait until the process is fully completed. This may take a few minutes.

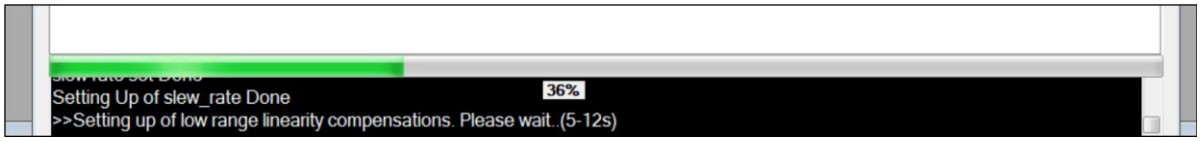

Figure 1.L: Apply changes

13. Successful completion of data uploaded to the sensor should display as follows. Press “OK”.

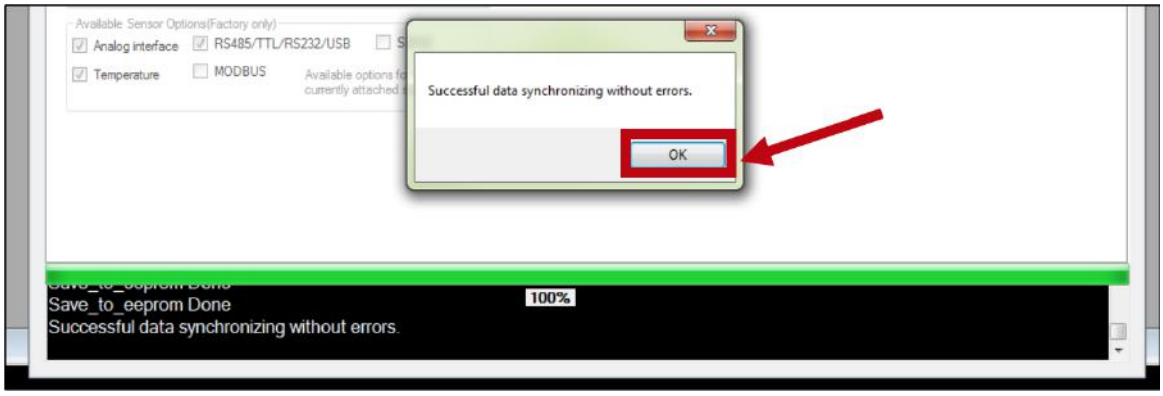

Figure 1.M: Apply changes

14. Firmware update is now fully completed.

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