Antec Scientific
Industrieweg 12
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The Netherlands

FW upgrade user guide

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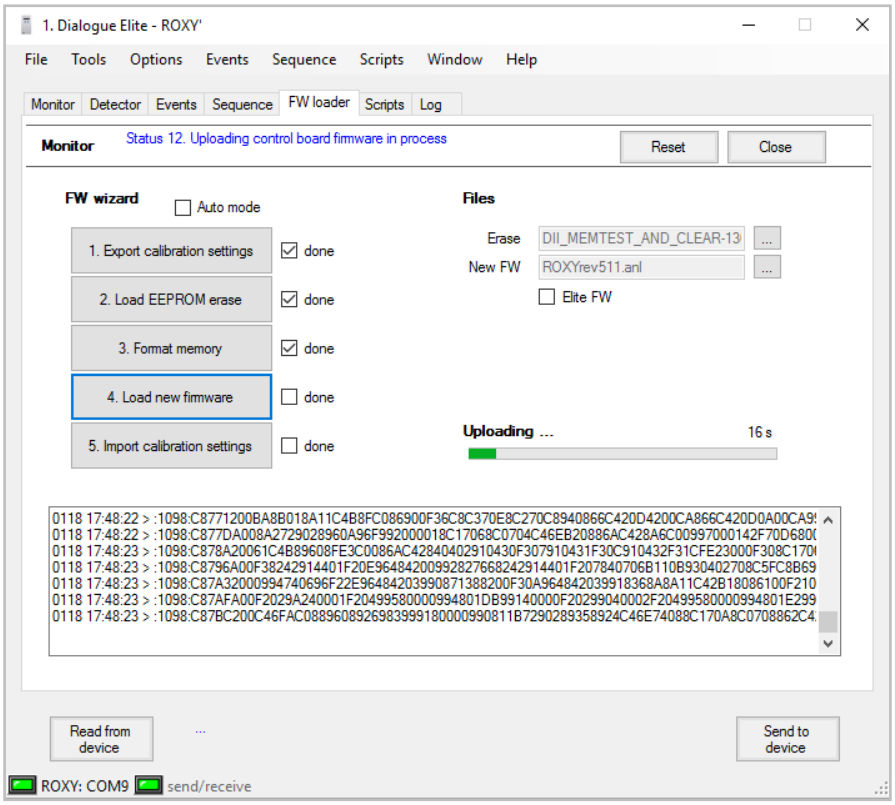


Symbols

The following symbol are used on the rear panel and oven compartment of the device™:

Consult the manual for further safety instructions

Frame or chassis ground terminal

The following pictograms are used in the device manual:

Caution

Caution, risk of electric shock or other electrical hazard (high voltage)

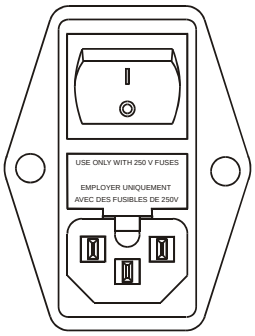
Safety practices

The following safety practices are intended to insure safe operation of the equipment.

Electrical hazards

The removal of protective panels on the instrument can result in exposure to potentially dangerous voltages. Therefore, disconnect the instrument from all power sources before disassembly. Untrained personnel should not open the instrument.

Replace blown fuses with fuses of proper type and rating as stipulated on the rear panel and specified in the installation section of this manual. The fuse holder is integrated in the mains connector. Ensure that the instrument is never put in operation with fuses of a different type. This could cause fire.



Connect the detector to a grounded AC power source, line voltage 100 – 240 VAC. The instrument should be connected to a protective earth via a ground

socket. The power source should exhibit minimal power transients and fluctuations. Replace faulty or frayed power cords.
Place the detector on a flat and smooth surface. Do not block the fan located at the bottom of the detector. Blocking the fan will impair the cooling capability of the power supply.

Spare parts and service availability

Manufacturer provides operational spare parts of the instrument and current accessories for a period of five years after shipment of the final production run of the instrument. Spare parts will be available after this five years period on an ‘as available’ basis.
Manufacturer provides a variety of services to support her customers after warranty expiration. Repair service can be provided on a time and material basis. Contact your local supplier for servicing. Technical support and training can be provided by qualified chemists on both contractual or as-needed basis.

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CHAPTER 1

Installation

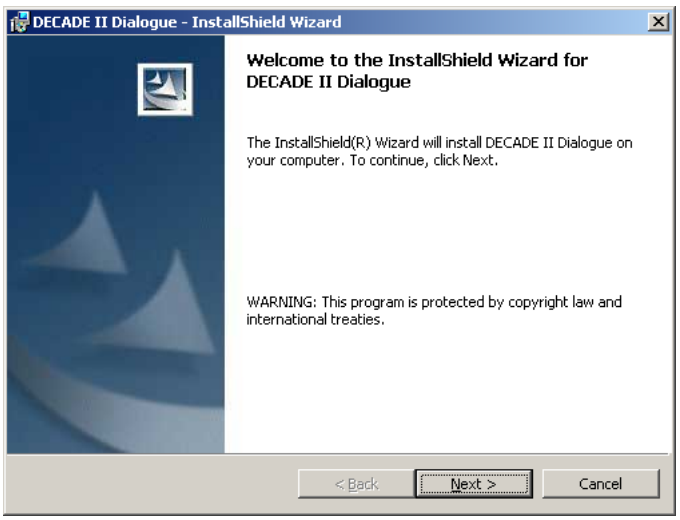
System Requirements

In order to be able to run Dialogue Elite™ you must have a PC with Microsoft Windows 7 or newer.

Software

The Dialogue Elite software with integrated firmware upgrade wizard can be downloaded from our internet site. Always check for updates and use the most recent version of Dialoque to updating the firmware of your detector. The upgrade wizard is also available in the 'locked' demo version of Dialogue, so no dongle is required.

- De-install previous versions of Dialogue before attempting an installation.
- Unzip the downloaded file and start the executable setupD2D_xxxxxx.exe.
- Follow the installation instructions on the PC screen carefully.



After installation a new application group named “Antec Scientific” will appear in the Windows Start Menu containing a link named “Dialogue Elite”.

Besides the Dialogue PC software a flash file containing the latest update of the embedded software (Firmware) is necessary. Such a FW file has a file name such as: DII-371.anl.

Always consult Antec Scientific when upgrading a device detector. Send an e-mail to: support@antecscientific.com

To obtain upgrade information and the flash file containing the latest update of the embedded software. Please include the serial number of the device detector which you want to upgrade in the e-mail.

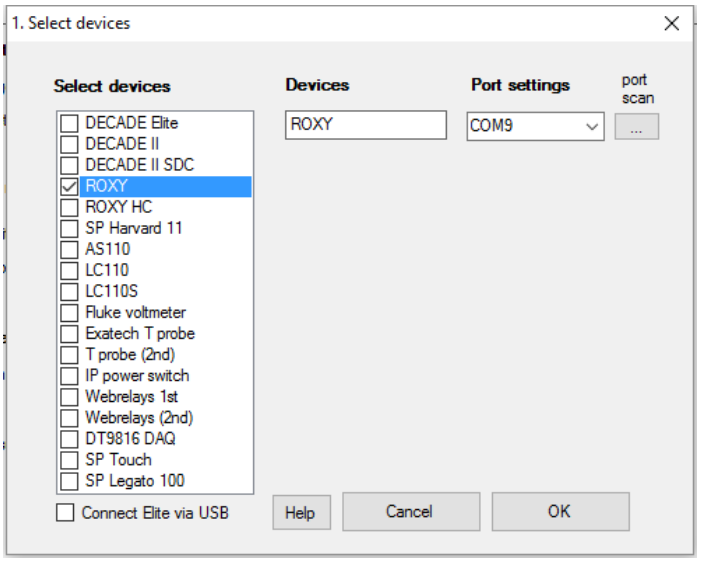
Store the obtained flash file (*.anl) on your PC and remember the location.

After installation of Dialogue Elite software connect the device to the PC via RS232.

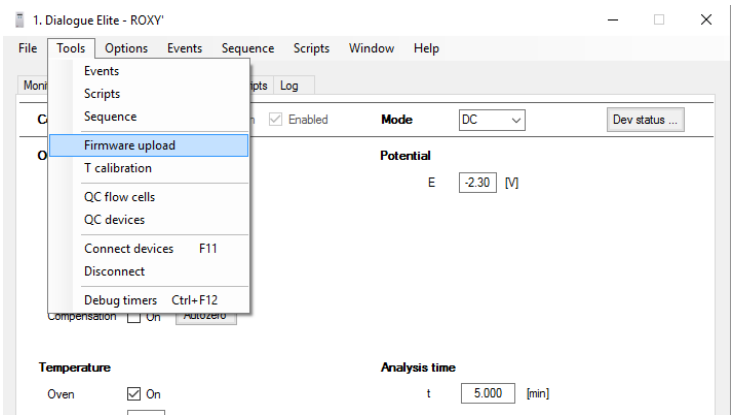
CHAPTER 2

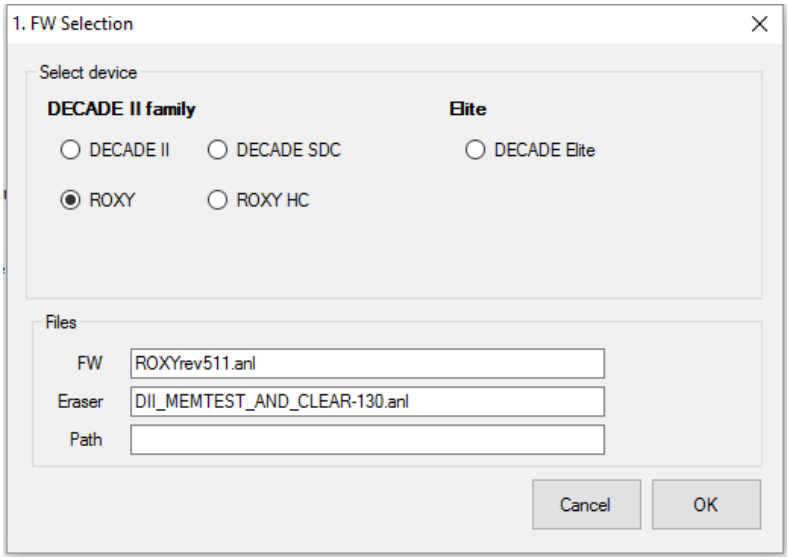
Upgrading firmware

Follow the instructions in this chapter accurately to successfully update the flash FW on your detector. Switch on the device and start the Dialogue Elite software on your PC. Select the device and corresponding port.
In case the device does not have valid firmware, the software must be started with the unit off. However, it is important to select the correct com port. Ignore the message, in such case, that the unit is not found.

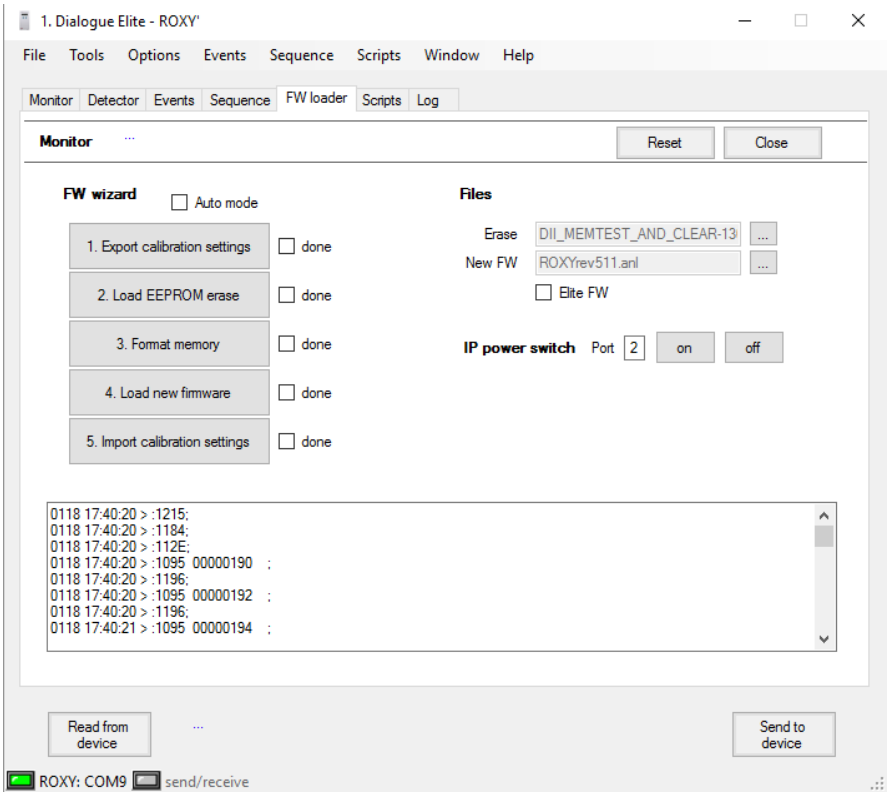


Subsequently, go to the "Tools" pull down menu and select the FW upload. The FW selector will appear.





Select the correct device type. The firmware files and path appears. Click OK to continue. In case the path/file is wrong, it can be changed in the next main window. After clicking OK, the Firmware loader window appears.
It is important that the FW file names on the right (top) text boxes refer to existing and correct FW files.



By default, uncheck the automode checkbox (left top). The IP powerswitch appears only when this device is installed (not needed).

During all steps of the upgrade procedure "FW wizards instruction windows will appear with important information. Always read these instructions carefully before clicking the OK button.

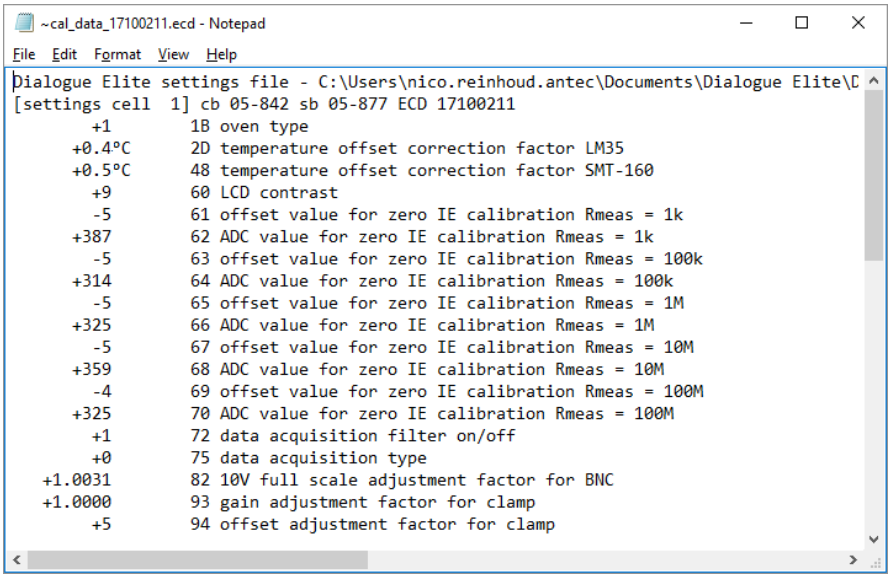
The upgrade procedure consists of 5 steps:

1. Export the device calibration settings to PC.
2. Loading the EEPROM erase software
3. Erasing and checking all memory.
4. Uploading the new FW upgrade to the device
5. Importing the device calibration settings to the device

Each step will be explained in detail in the following paragraphs.

STEP 1 Exporting the device calibration settings to PC

Click "Export calibration settings". The calibration data will be saved in a text file with the following file name format: " ~cal_data_xxx-xxx.ecd". Where xxx-xxx is the serial number of the device.



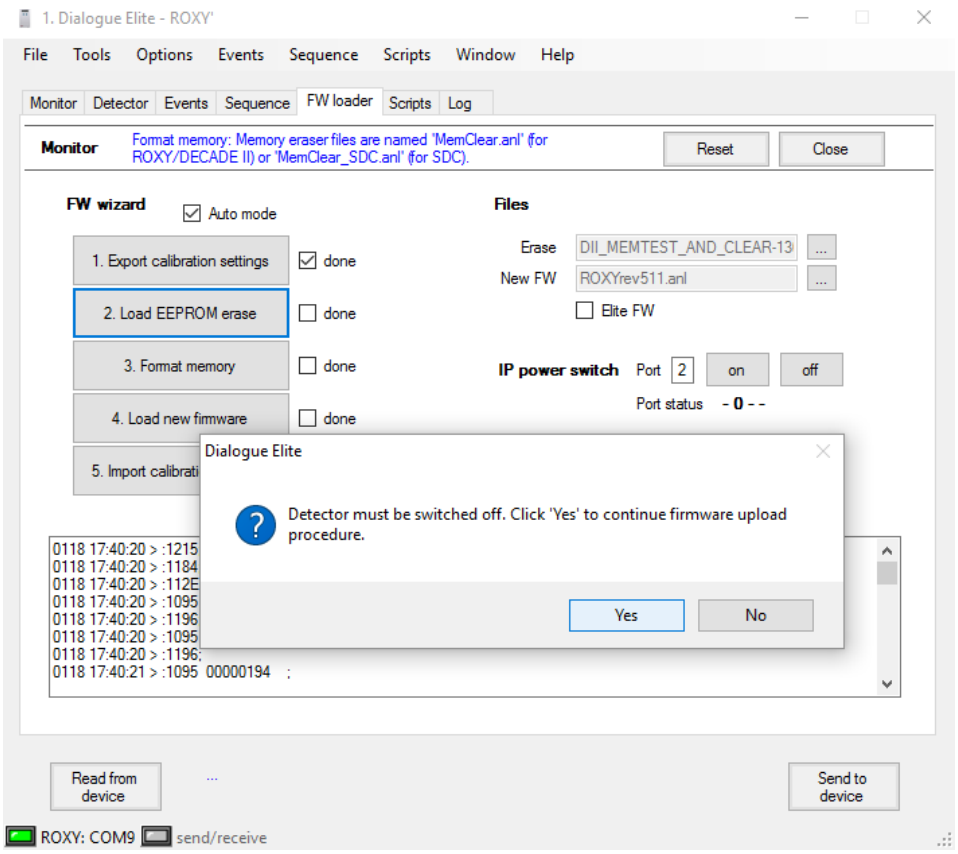
Perform the following steps:

- Check file contents. Calibration data such as ADC & offset values for zero IE calibration should typically be ≠ 0. If all these values are 0 this could be an indication that the sensor board was not calibrated or lost its calibration settings for some reason. Contact Antec for the original data.

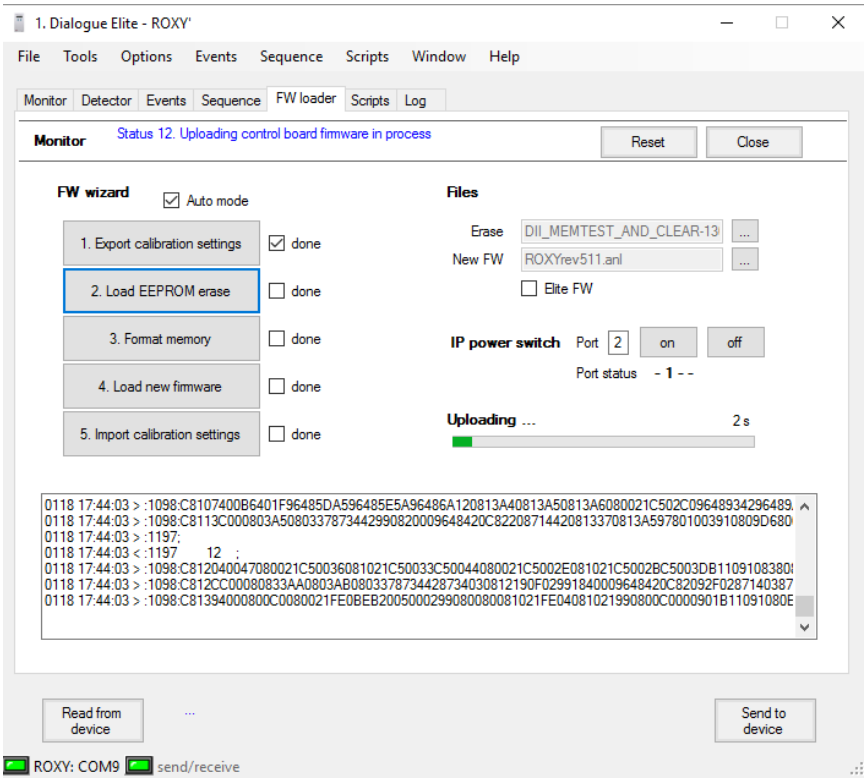
- **Always make an safety copy of the calibration file and save it at a different location using the "save as" function.**
- **Do not overwrite the first saved settings file during a second attempt to export the settings file (rename file). In the case (factory) that calibration settings are lost, please contact the supplier for further instructions: support@antecscientific.com**

STEP 2 Loading the EEPROM erase software

The second step in the process is uploading the EEPROM erase software to the device. Click "Load EEPROM erase". Follow the instructions: switch off the device - click OK - switch on.



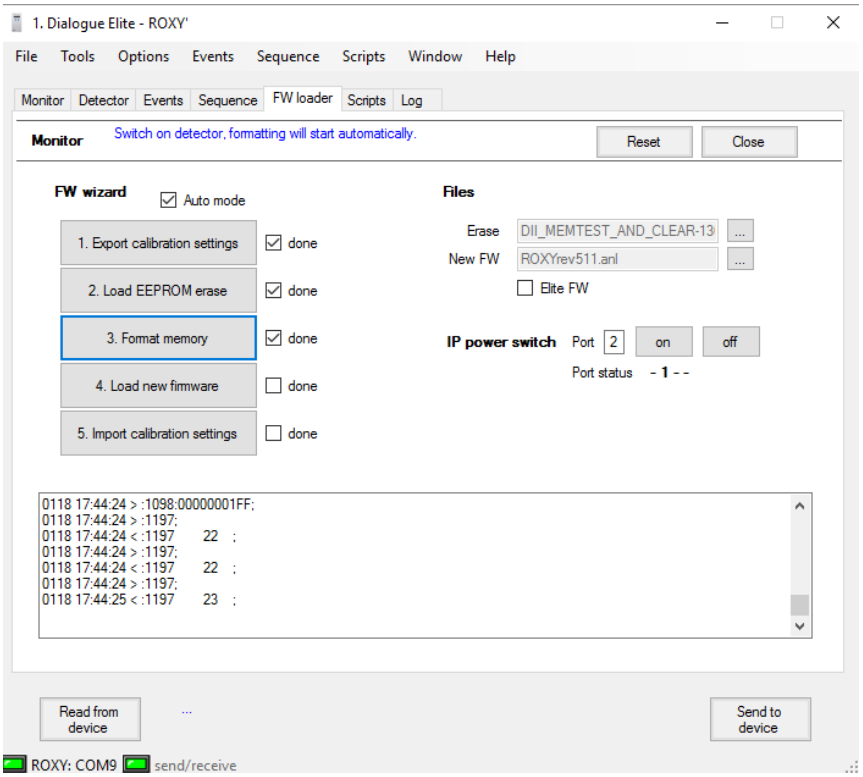
The device should start uploading the firmware, and progress is shown.



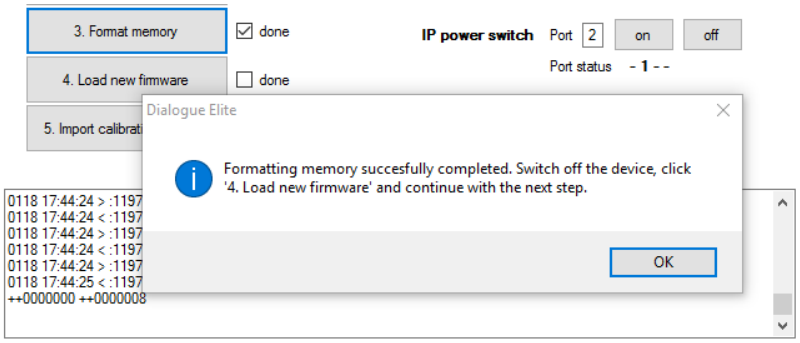
Depending on the device, the next step will start automatically (DECADE Elite family) or after switching off/on the device (ROXY, DECADE II family).

STEP 3 Formatting device EEPROM memory

In the third step all memory locations on the EEPROM IC's in the device will be formatted and tested. The display of the device shows what is going on. It will take a couple of minutes. The Dialogue software window will not show much.

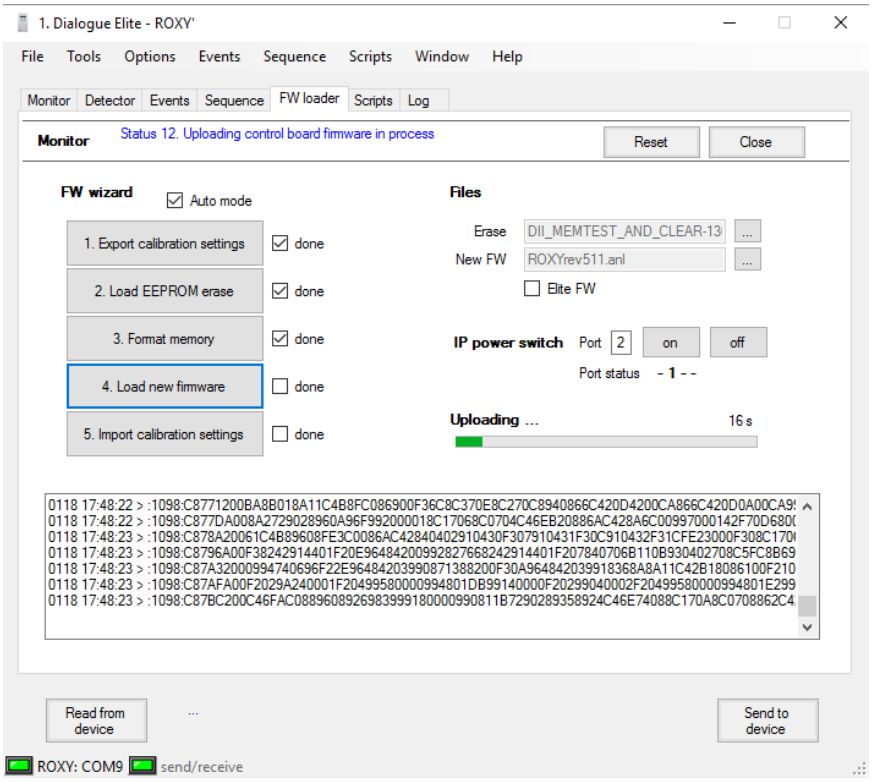


When done, a confirmation will follow.



STEP 4 Upload of the new FW update to the device

The fourth step in the process is uploading the new FW update to the device. Click "Load new firmware". Follow the instructions: switch off the device - click OK - switch on.



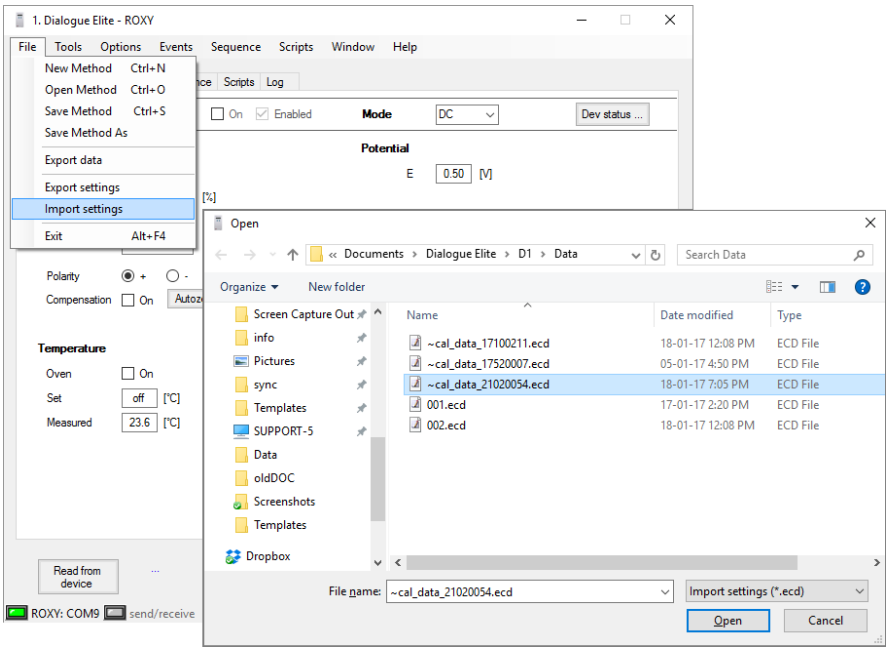
The progress of the upload is shown on screen.

STEP 5 Importing the calibration settings to the device

The last step in the process is uploading the calibration settings back into device memory. This is necessary because during formatting of the EEPROM memory all the calibration settings are deleted.

Normally, the device is switched off and on. Then the import settings is clicked and the procedure will reload the calibration settings.

If for some reason this is not possible, the settings can be loaded from the main menu. Select File\import settings and select the ~cal_data_ file.



C H A P T E R 3

Trouble shooting

If during the upload procedure for any reason a power interruption occurs, please repeat the upload procedure as described in this user guide. If something goes wrong during or after the firmware upgrade, the device will display an error message on the LCD screen of the detector. The following error messages can occur during or after an upload:

Error	Message
02	Control board error
03	Sensor board 1 error
04	Firmware program error
05	Record error
06	Incompatible FW version
07	Incompatible FW
08	Control board FW erase failed
09	Sensor board 1 FW erase failed
10	Upload checksum error.
11	Checksum error.

In case of error 02, 03, 06 and 10 please repeat the upload procedure as described in this user guide. If the error persists please contact your supplier. In case of error 04, 05, 07, 08, 09 or 11 please contact your supplier.

Be careful with the calibration settings files. They are necessary to assure that the detector operates properly after the software update. Take the following precautions.

- **Do not overwrite the first saved settings file during a second attempt to export the settings file (rename file).**
- **Always make a safety copy of the calibration file and save it at a different location using the "save as" function. When (factory) calibration settings are lost, please contact the supplier for further instructions: support@antecscientific.com**