

Dissolved Oxygen Analyser FAQ

- [What is a 'FAQ'?](#)
- [Can I contact SiS in case of problems?](#)

Titration

- [Inside my 1 ml exchange unit \(old model\) are some small air bubbles. Is this a problem? Are the titration result accurate? How can I remove these bubbles?](#)
- [Will the formation of air bubbles from stirring influence the titration result?](#)
- [How do I prevent the formation of air bubbles when stirring?](#)
- [The transmission values without bottle are too low. Must I re-calibrate the DO Analyser?](#)
- [The transmission values from the Transmission Test are slightly unstable. Why?](#)

Software

- [The titration curves show the end point leftwards to the area where the measuring values reach the end line. Isn't this value too low?](#)
- [I have compared the software results with manually calculated results using the formulas from the manual. They sometimes differ slightly. Why?](#)

Windows Software

- [Why there are no 'Save' and 'Save As' options in the file menu of the DOA software?](#)
- [I have only the demo version installed and want to upgrade to a newer version. Must I install the complete new demo version or can I use the upgrade package?](#)
- [I have upgraded to a newer version by using the demo package instead of the full package. Is my DOA software now only a demo version?](#)
- [Can I upgrade to a newer version by using the full package instead of the upgrade package?](#)

DOS Software

- [Some special characters are not displayed properly on screen. How can I fix that?](#)
- [The transmission readings are jumping, even sometimes to negative values. What happens?](#)
- [How can I print special characters?](#)
- [How can I print graphics \(the titration curve\)?](#)
- [Can I use the DOS software with Windows?](#)

What is a 'FAQ'?

FAQ is an acronym for Frequently Asked Questions.

Can I contact SiS in case of problems?

Yes, off course. Use Email (preferred) or Fax (see [contact page](#)). Please add some additional information - besides the problem report - when contacting us for support:

- DOA serial number (beneath the external power and serial connectors)
- DOA Software Version (use the Info option of the Help menu)
- Operating system and version
- Type of computer (Desktop/Notebook, CPU Type and speed; e.g. Notebook, Celeron 600)

When having problems with titrations you should provide some additional information:

- Volume of exchange unit
- Volume of used sample bottles
- Software parameter settings (Database - Parameter, those used for titrations)
- If possible Log files (Email preferred)

Titration

Inside my 1 ml exchange unit (old model) are some small air bubbles. Is this a problem? Are the titration result accurate? How can I remove these bubbles?

As long as the bubbles did not leave the exchange unit the titration results are accurate. Here are some hints to avoid air bubbles inside the exchange unit:

- Try to drive the air bubbles upwards by tapping at the glass cylinder.
- Untighten the tubing connection on top of the glass cylinder (when cylinder is filled) and bring up the air bubbles by using a small wire. After tightening the connection dispense and fill some complete volume to bring out the air bubble.
- Degrease glass cylinder (e.g. with acetone) and rinse thoroughly afterwards with distilled water.
- All tubing connections must be tight (not too tightly; take care not to squeeze the tubing). Use the provided key if you have problems tightening manually. If connections are not tight enough, the unit sucks up air.
- Mark tubing ends. Tubings should be always used in the same direction after first usage.
- The glass cylinder may be damaged on his top (sealing area below the nut; the nut must be removed to check this). If this is true air may be sucked up and the glass cylinder must be replaced.
- Tubing connections and seals should be checked yearly and replaced if necessary.
- Inside the flat cock are two Teflons plates. When the exchange unit is not used for some time, it may happen that crystals grow up. These crystals can scratch the Teflon plates when using the unit. If this happens, the plates must be replaced.
- Replace the old model by a new one. The new model is much better. It has tubing with a bigger diameter.

Please note also: When the exchange unit is not used for some time (weeks) it should be rinsed thoroughly with distilled water and stored dry or filled with distilled water.

Will the formation of air bubbles from stirring influence the titration result?

In general: Yes. The influence depends on size and number of air bubbles. Use the Titration Graph option to have an overview of the influence. The DOA software tries to identify wrong transmission readings from air bubbles. This will work only if less than 50% of the measurements are wrong.

How do I prevent the formation of air bubbles when stirring?

Select a slower stirring speed or use smaller stirring bars. Please note that it may be necessary to adjust the waiting times from the titration parameter settings.

The transmission values without bottle are too low. Must I re-calibrate the DO Analyser?

If the values are only a little bit below 100% the problem may be solved by cleaning the optical

parts. If this is not enough a re-calibration is necessary. See the DOA Technical Reference Manual for further information.

The transmission values from the Transmission Test are slightly unstable. Why?

This may happen when a beam of light from a lamp targets the receiver of the photometer (directly or reflected). To check this cover the photometer area (e.g. by holding your hand above the photometer) and compare the stability of the values. To avoid this influence switch off lamps or move the analyser to another position. Light from lamps with classical light bulbs is better (less influence) than those from neon tubes or quartz-halogen lamps.

Software

The titration curves show the end point leftwards to the area where the measuring values reach the end line. Isn't this value too low?

No. The chemical reaction at the end of titration is delayed. Therefore, the curve will become more flat. Theoretically the curve goes straight up until reaching the end line. The software takes this delay effect into account by using the point of maximal slope for end point calculation.

I have compared the software results with manually calculated results using the formulas from the manual. They sometimes differ slightly. Why?

The software calculates with high precision (16 significant digits) and stores all values with this precision. The software output is rounded. When using the rounded values for calculation the results may differ.

Windows Software

Why there are no 'Save' and 'Save As' options in the file menu of the DOA software?

The DOA software uses database files. They are saved automatically immediately after any changes. Therefore, there is no need for a 'Save' option. When creating a new file, you are prompted for a file name and path. There will be no 'Untitled' document. So a 'Save As' option would be rarely used. If you still want to save a data base file with different name or path, simply copy or move the file (file must not be opened with DOA software when copying).

I have only the demo version installed and want to upgrade to a newer version. Must I install the complete new demo version or can I use the upgrade package?

You can use the upgrade package as well.

I have upgraded to a newer version by using the demo package instead of the full package. Is my DOA software now only a demo version?

No. The setup identifies an existing full version. But the demo version did not contain the calibration program and some documentation. Therefore, you may miss new versions of the calibration program. See also the next FAQ.

Can I upgrade to a newer version by using the full package instead of the upgrade package?

Yes. The setup identifies an existing version. However, you should not change the program directory, the name of the DOA start menu folder, or the setup language. If you change one or more of these settings, some old files and start menu entries are not removed. Therefore, you should uninstall the old version if you want to change these parameters.

DOS Software

Some special characters are not displayed properly on screen. How can I fix that?

Your DOS is configured to use a non-standard country setting. The software was designed for codepage 437 (US and Western Europe).

MS-DOS

Your DOS config files should contain these settings:

CONFIG.SYS: (country code 49 may be replaced by other codes)

```
COUNTRY=049 , , C:\DOS\COUNTRY.SYS
```

AUTOEXEC.BAT: (country abbreviation may be replaced by others)

```
KEYB GR , , C:\DOS\KEYBOARD.SYS
```

Remove these or similar lines:

```
MODE CON CODEPAGE PREPARE=( (850) C:\DOS\EGA.CPI )
MODE CON CODEPAGE SELECT=850
```

Windows ME

Start the system configuration (c:\windows\system\Msconfig.exe), select the tab "International" and enter the codepage number 437 in the "MS-DOS-Codepage" input field. Note: This setting is only valid when running the DOS software in full screen mode.

How can I print special characters?

Your printer must be configured to use the correct character set (e.g. IBM-PC or PC-8). See your printer manual for further instructions.

How can I print graphics (the titration curve)?

The DOS software only supports printers using the printer languages ESC/P (EPSON) or PCL (HP). Consult your printer's manual for selection of one of those languages. Then use the config option of the DOA software to select the used printer language.

The transmission readings are jumping, even sometimes to negative values. What happens?

You probably use the DOS software with Windows. The software was originally not designed to run with Windows. We can't guarantee proper operation when used in the DOS shell of Windows. See also the next FAQ.

Can I use the DOS software with Windows?

Usage may be possible with Windows 3.x, 95, 98, 98 SE, and ME. However, proper operation can't be guaranteed. We recommend a Pentium PC 200 MHz or faster when using the DOS software in a Windows shell. We also recommend to create a PIF file for the DOA software to give the program highest priorities.

SiS Sensoren Instrumente Systeme GmbH
Mühlenkoppel 12
24147 Klausdorf

Germany
Tel.: +49-431-79972-0
Fax: +49-431-79972-11
Email: info@sis-germany.com
WWW: <http://www.sis-germany.com>

HTML version of this document: <http://www.sis-germany.com/doafaq.htm>

Last update: 2005-07-21