ANALYT MESSTECHNIK



OPERATING MANUAL

SKC DataTrac Software for the AirChek 3000 Pump

Installing DataTrac 2000 (Cat. No. 877-91), connecting an AirChek 3000 or AirChek 2000 pump, calibrating and controlling it from the PC, programming sampling schedules, and keeping histories, reports and calibration records.

AMTC-MN-0021

About this manual

SKC DataTrac 2000 is the PC software for the SKC AirChek 3000 sample pump and its predecessor, the AirChek 2000. With the pump connected to the PC by the DataTrac adapter cable, you can run and stop the pump from the screen, calibrate its flow against a primary standard, program up to ten timed sampling runs, and download the pump history for your records and worker exposure reports.

This manual follows the work in the order you will do it: installing the software and connecting the pump (Installation (p. 10)), controlling and calibrating the pump live (Controlling the pump from the PC (p. 15)), programming a schedule (Programming sampling schedules (p. 20)), and then reading, filing and reporting what the pump recorded. A worked example of a one-week program is in Example: one working week (p. 25).

The manual applies to DataTrac 2000 software, Cat. No. 877-91, used with AirChek 3000 and AirChek 2000 pumps. For questions, repairs and spare parts, contact Analyt-MTC (see Service, warranty and contacts (p. 37)).

Keep this manual for the lifetime of the product. The current revision is on the product page at analyt-mtc.com.

Conventions in this manual:

- Keys, buttons and menu entries are printed like this: **ToPump**.
- A menu path such as **View › Calibration Info** means that you open each entry in turn.
- Commands you send and replies the device returns are set in monospace type, for example `HISTORY FILE`.

How this manual marks information

⚠ WARNING

A hazardous situation which, if not avoided, could result in death or serious injury.

NOTICE

Practices not related to personal injury — damage to the product, the process or the sample.

Note
Information that helps understanding; never a hazard.

Window names are also written in bold, as they appear on screen: **SKC Pump Scheduler**.

⚠ WARNING

A pump connected to the PC in a hazardous location can ignite the atmosphere. The result can be a fire or an explosion. Connect the pump to the PC only in a non-hazardous area. Read Connecting the pump (p. 11) before the first connection.

Document information

Title	SKC DataTrac Software for the AirChek 3000 Pump — Operating manual
Document number	AMTC-MN-0021
Revision	Rev. 2 — October 2026
Applies to	DataTrac 2000 software, Cat. No. 877-91, with AirChek 3000 and AirChek 2000 sample pumps
Language	English
Manufacturer	SKC Inc.

Revision history

Rev.	Date	Change
2	October 2026	Quality programme: new document type, number and identity pages.
1	October 2026	First issue.

Information in this manual is subject to change without notice. Microsoft, Windows and Excel are trademarks of Microsoft Corporation. © 2026 ANALYT-MTC Messtechnik GmbH. All rights reserved.

Contents

1 **Safety** 6
- Intended use 6
- Connecting the pump to the PC 6
- Data in the pump 6
- Calibration and results 7

2 **Product description** 8
- What the software does 8
- System requirements and delivery 8
- The windows at a glance 8

3 **Installation** 10
- Installing the software 10
- Updating an earlier version 10
- Connecting the pump 11

4 **Operation** 14
- Menus 14
- Calibration date in the About menu 15
- Controlling the pump from the PC 15
  - Menus 16
  - Real-time display 16
  - Calibrating the flow 17
  - Temperature and pressure 18
  - Pump controls 18
  - Units 18
  - Fault options 18
  - Setting the pump clock 19
  - Timed samples 19
- Programming sampling schedules 20
  - Menus 20
  - Program Edit Bar 21
  - Pump Program Scheduler 21
  - Programming buttons 21
  - Choosing the flow rate 22
  - Calendar 23
  - Clock 23
  - Time Bump 23
  - Comm Checking 23
  - Comparing the pump and PC clocks 24
  - Run-time options 24
- Example: one working week 25
- Pump history 26

Menus 26
Reading the history 26
Saving, printing and clearing 27
Temperature and pressure data 28
Back pressure profile 28
Archived histories 29
Reports and calibration records 29
The sample sheet 29
Worker exposure profiles 30
CalChek calibration records 30
History files in a spreadsheet 31
Layout of a history file 31
Mode fields 32
Time fields 32

5 Communication 33
The pump–PC interface 33

6 Troubleshooting 35
Problems and remedies 35
DataTrac 2000 will not install 35

7 Ordering information 36

8 Service, warranty and contacts 37

CHAPTER 1

Safety

Read this chapter before you install DataTrac 2000 and connect a pump. Its safety messages concern two things: where you may connect the pump to the PC, and commands that erase data in the pump for good.

Intended use

DataTrac 2000, Cat. No. 877-91, is PC software for the SKC AirChek 3000 and AirChek 2000 sample pumps. Use it with the DataTrac adapter cable to control and calibrate these pumps from a PC, to send sampling schedules to them, and to download, save and report their histories.

The safety of the pump itself is described in the pump's own operating manual: for the AirChek 3000, the SKC AirChek 3000 Sample Pump operating manual (AMTC-MN-0035); for an AirChek 2000, the operating manual supplied with that pump. Read its safety rules before you take the pump into a hazardous location.

Connecting the pump to the PC

The pump label forbids connecting anything to the data port, or connecting a charger, in a hazardous location, and asks you to keep the pump covers closed. Connect the pump to the PC outside the hazardous location, and disconnect it before the pump goes back in.

⚠ WARNING

A pump connected to the PC in a hazardous location can ignite the atmosphere. The result can be a fire or an explosion. Connect the pump to the PC only in a non-hazardous area. Read Connecting the pump (p. 11) before the first connection.

⚠ WARNING

Connecting the pump to the PC (its data port) or to a charger in a hazardous location is a source of ignition. Substituting any component may impair intrinsic safety. Either can cause a fire or an explosion. Never connect the pump to the PC or to a charger in a hazardous location. Connect it only in an area known to be non-hazardous. Keep the pump covers closed. Do not substitute any component.

Data in the pump

Setting the pump clock, the clear commands and a CalChek full calibration erase the history, the schedule or the run-time settings in the pump memory. Erased data cannot be restored. Save the history and the schedule to the PC before you use any of them.

NOTICE

The pump clock can be changed only when the pump history is cleared. The cleared history is lost. Save the history to the PC first if you still need it (see Saving, printing and clearing (p. 27)).

NOTICE

Clear History and Clear Schedule act on the pump memory at once. The cleared data is lost. Save the history and the schedule to the PC first if you still need them.

NOTICE

A CalChek full calibration clears all data in the pump history and in the Pump Program Scheduler. The cleared data is lost. Save the history and the schedule to the PC before a full calibration.

NOTICE

The pump clock can be reset only after the pump history has been cleared, and DataTrac asks you to clear it. The cleared history is lost. Save the history first if you still need it.

NOTICE

Tools › Clear Schedule erases the schedule both on screen and in the memory of the connected pump. The erased schedule is lost. Save the schedule with File › Save first if you still need it.

NOTICE

Tools › Clear History clears the history on screen and in the pump. Clearing cannot be undone. Save the history first if you still need it.

NOTICE

A full calibration clears the pump history, the run-time parameters and the Pump Scheduler completely. The cleared data is lost. Save the history and the schedule to the PC beforehand.

NOTICE

Double-clicking a run in the scheduler moves it to the edit bar, and whatever was in the edit bar before is erased. To edit a run, double-click it, but finish any edit already in progress first.

NOTICE

The full-calibration data stays in the pump until the next full calibration with CalChek replaces it, or until the pump has recorded more than 36 history entries; after either, the old data is lost. Clearing the history does not clear it. Print the calibration records with **File › Print** beforehand if you still need them.

Calibration and results

NOTICE

Changing the flow setting on the pump resets the correction to 0.0. The correction for the previous flow is then lost. Calibrate again after every change of flow.

CHAPTER 2

Product description

DataTrac 2000 moves the work of setting up an AirChek pump from its keypad to the PC, and brings the pump's records back to the PC afterwards.

What the software does

- Shows the operating state of the connected pump: flow rate, temperature, atmospheric pressure, run time and battery charge.
- Runs, holds and calibrates the pump from the PC; the flow is calibrated against a primary standard.
- Programs a sampling operation of up to 10 sampling runs, each with its own flow rate, start and stop time.
- Creates programs on the PC, saves them for later use and uploads them to one pump or to several pumps in turn.
- Downloads the run-time data and history of the pump to the PC, and prints them.
- Documents each sample on a sample sheet and merges it with the pump history into a printable worker exposure profile.
- Documents the date of the last pump calibration when the pump has the CalChek automatic calibration feature (DataTrac 2000 version 3.59 or higher).

System requirements and delivery

Operating system	Microsoft Windows XP or later, including Windows 7 (64-bit)
Disk space	At least 20 MB free on the hard drive
Drives and ports	CD-ROM drive for the software CD; a free USB port for the DataTrac adapter cable
Input	Mouse
Supplied	DataTrac 2000 software, with this manual, on CD-ROM; DataTrac adapter cable, which links the interface port of the pump to a USB port of the PC

Note
The full set of functions is available only while an active pump is connected. Without a pump you can still open the **SKC DataTrac Pump Manager**, and set up a program and save it on the PC; most other functions stay unavailable.

The windows at a glance

Window	Use it to	See
SKC DataTrac Pump Manager	open the other windows; clear history or schedule; set the pump clock	p. 14
SKC Real Time Monitor	watch, run and calibrate the pump; set units and fault options	p. 15
STEL/Timed Run	set a single timed sample at a chosen flow, such as a short-term exposure limit (STEL) sample	p. 19
SKC Pump Scheduler	build, upload, download, save and print sampling programs	p. 20
SKC Pump Program Settings	choose the run-time options sent with a program	p. 24
SKC Pump History	read, save and print the history; temperature and back pressure	p. 26
Archive History	open a history saved on the PC	p. 29
Sample Sheet Setup	record sample details and create worker exposure profiles	p. 29
Calibration Info	view, print and validate CalChek full-calibration results	p. 30

The pump, the adapter cable and the PC are connected as in Figure 2 (Connecting the pump (p. 11)); the controls of each window are labelled in the figures of Operation (p. 14).

CHAPTER 3

Installation

Install the software once, then connect the pump each time you want to work with it. The first connection also installs the driver for the adapter cable.

Installing the software

Use this procedure on a PC that has no earlier version of DataTrac 2000. To replace an earlier version, see Updating an earlier version (p. 10). The installer and its windows are titled “AirChek 2000”.

1. Close all other applications.
2. Insert the DataTrac 2000 CD into the CD-ROM drive. The setup starts on its own. If it does not, open the CD drive in Windows Explorer and double-click **Setup.exe**.
3. In the **Welcome** window, click **Next**.
4. In the **License Agreement** window, select “I accept the terms …” and click **Next**. The installation does not continue unless you accept the terms.
5. In the **Customer Information** window, enter the user name and organisation. Under “Install this application for:”, choose **Anyone who uses this computer (all users)** or **Only for me**. Click **Next**.
6. In the **Ready to Install the Program** window, click **Next** to install into the folder shown.

   Note
   Do not press any key while the software is being installed.

7. Wait while the **Installing AirChek 2000** window is shown; this can take several minutes.
8. When the **Wizard Completed** window confirms the installation, click **Finish**.

The installer puts a shortcut named **AirChek 2000** on the desktop; it starts DataTrac 2000. If the installation fails, an error box says so: run the procedure again, and if it still fails see DataTrac 2000 will not install (p. 35).

Note
To change the installation settings later, repeat steps 1 to 3. The installer then opens the **Program Maintenance** window; choose **Modify**.



Figure 1. The **DataTrac 2000** shortcut that the installation puts on the desktop.

Updating an earlier version

When a previous version of DataTrac 2000 is on the PC, remove it first and then install the new one. In the **Program Maintenance** window, **Modify** changes the installation settings and **Repair** updates the installed software or repairs installation errors; removing the old version is the recommended route.

1. Close all other applications and insert the new DataTrac 2000 CD (as in step 2 above).

2. In the **Welcome** window, click **Next**.
3. In the **Program Maintenance** window, select **Remove** and click **Next**.
4. In the **Remove the Program** window, click **Remove**. The **Uninstalling AirChek 2000** window is shown while the old version is removed.
5. When the **Wizard Completed** window confirms the removal, click **Finish**.
6. Install the new version as described in Installing the software (p. 10).

Connecting the pump

The DataTrac adapter cable connects the interface port of the pump to a USB port of the PC (Figure 2). Before you click **Connect to Pump**, the cable must be plugged into the pump's interface port and its USB plug into the PC, and the pump display must be activated by pressing any key on the keypad.

⚠ WARNING

Connecting the pump to the PC (its data port) or to a charger in a hazardous location is a source of ignition. Substituting any component may impair intrinsic safety. Either can cause a fire or an explosion. Never connect the pump to the PC or to a charger in a hazardous location. Connect it only in an area known to be non-hazardous. Keep the pump covers closed. Do not substitute any component.

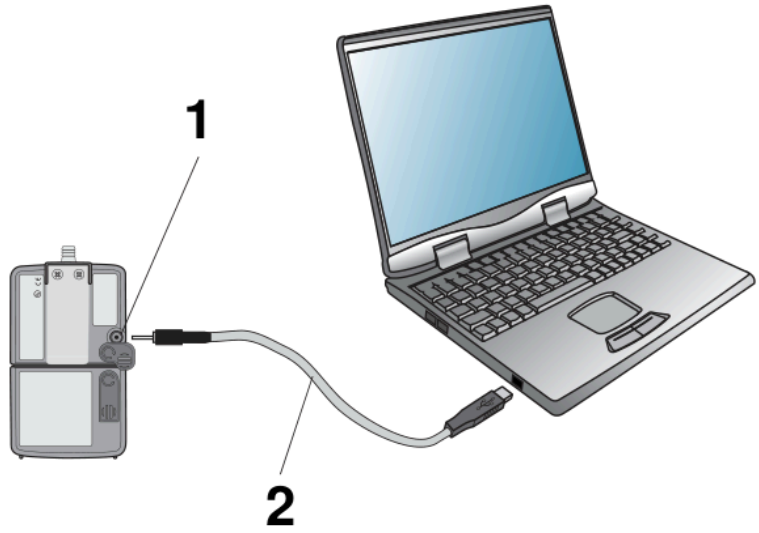


Figure 2. Pump connected to the PC. **1** Interface port of the pump · **2** DataTrac adapter cable to a USB port of the PC

First connection

1. Connect the pump to the PC with the DataTrac adapter cable.

   If Windows opens the **Found New Hardware Wizard**, install the cable driver:

   - Check that the wizard offers to install software for “USB Serial Port”. If it offers any other software, cancel the wizard and plug the cable into a different USB port.
   - Select **Install the software automatically (Recommended)** and click **Next**.
   - Wait while the **Installing USB Serial Port** window is shown; this can take several minutes. Do not press any key meanwhile.
   - When the **Completing the Found New Hardware Wizard** window appears, click **Finish**.

2. Press any key on the pump keypad to activate the pump display.

3. Double-click the **AirChek 2000** shortcut on the desktop. The **AC 2000 Connection** window opens (Figure 3, left).
4. Click **Connect to Pump**. When the PC and the pump are communicating, the window shows a handshake icon (Figure 3, right). If an error box appears instead, see If the connection fails (p. 33).

> **NOTICE**
>
> The pump clock can be changed only when the pump history is cleared. The cleared history is lost. Save the history to the PC first if you still need it (see Saving, printing and clearing (p. 27)).

5. If the date of the PC and the pump differ by a day or more, or their times by more than 5 minutes, the **Time Discrepancy Alert** window opens. Choose how to reconcile them and click **OK**. If you choose "Set my pump to the time of the computer", DataTrac asks whether the pump history may be cleared:
   - **Yes** clears the pump history and sets the pump clock to the PC time;
   - **No** keeps the history; the pump clock stays as it is.
6. DataTrac loads and opens the **SKC DataTrac Pump Manager** (see Operation (p. 14)).

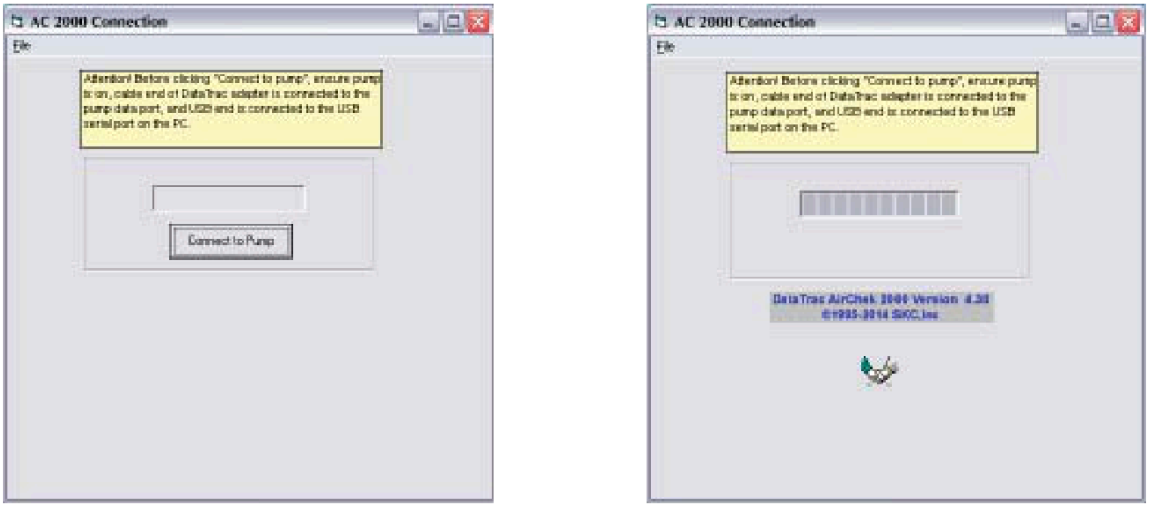


Figure 3. The **AC 2000 Connection** window before connecting (left) and after a successful connection (right).



Figure 4. The **Time Discrepancy Alert** window.

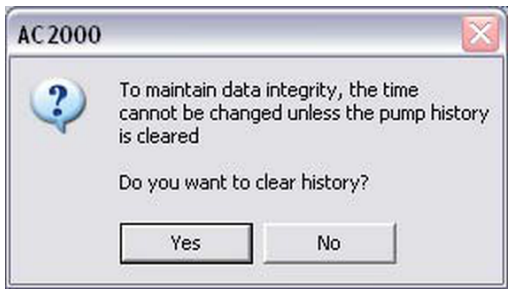


Figure 5. The **Clear Pump History** window.

Later connections

Once the cable driver is installed, connect the pump, press a key on the pump to activate its display, start DataTrac from the **AirChek 2000** shortcut and click **Connect to Pump**. Then continue with steps 5 and 6 of First connection (p. 11).

If the connection fails, or the adapter cable needs another COM port number, see Communication (p. 33).

CHAPTER 4

Operation

DataTrac 2000 is operated through its windows: the **SKC DataTrac Pump Manager** opens every other window; the **SKC Real Time Monitor** watches, runs and calibrates the connected pump; the **SKC Pump Scheduler** programs its sampling runs; the **SKC Pump History**, the sample sheet and the reports keep the records on the PC.

The **SKC DataTrac Pump Manager** is the first window DataTrac opens and the hub of the program: every other window opens from its menus.



Figure 6. The **SKC DataTrac Pump Manager** window, the first window DataTrac 2000 opens.

Menus

Menu	Command	What it does
File	**Exit**	Closes DataTrac and returns to Windows.
View	**Pump Scheduler**	Opens the **SKC Pump Scheduler** (Programming sampling schedules (p. 20)).
	STEL/Timed Run	Opens the **STEL/Timed Run** window (Timed samples (p. 19)).
	Sample Sheet	Opens the **Sample Sheet Setup** window (The sample sheet (p. 29)).
	Report	Opens a report saved on the PC.
	Pump History	Opens the **SKC Pump History** window (Pump history (p. 26)).
	Archive History	Opens a history file saved on the PC (Archived histories (p. 29)).
	Calibration Info	Opens the **Calibration Info** window (CalChek calibration records (p. 30)).
	Real Time Monitor	Opens the **SKC Real Time Monitor** (Controlling the pump from the PC (p. 15)).
Tools	**Clear History**	Clears the pump history.
	Clear Schedule	Clears the program schedule stored in the pump.
	Set Date/Time	Opens the **Set Date/Time for Pump** window (Setting the pump clock (p. 19)).
	Temperature and Barometric Pressure	Adjusts the pump's temperature and pressure readings to verified local values.

Menu	Command	What it does
About	—	Shows the DataTrac version, the pump firmware revision, the pump serial number, the build number and the date of the last calibration.

NOTICE

Clear History and Clear Schedule act on the pump memory at once. The cleared data is lost. Save the history and the schedule to the PC first if you still need them.

Calibration date in the About menu

Which calibration date the **About** menu shows depends on the pump firmware and on whether the pump has the CalChek automatic calibration feature:

Pump firmware	CalChek	What DataTrac shows
2.59–2.61	without	The date of the manufacturer's calibration; it does not change.
2.59–2.61	with	The date of the last full calibration, updated after each successful full calibration.
2.62 or higher	with	The date of the last full calibration in **About**, and the full calibration results under **View › Calibration Info**; both are updated after each successful full calibration.

Note
Calibration Info needs pump firmware 2.62 or higher together with the latest version of DataTrac 2000.

Controlling the pump from the PC

The **SKC Real Time Monitor** controls the connected pump directly: it shows what the pump is doing, runs and holds it, calibrates its flow and sets its units and fault behaviour. The window also shows the pump's serial number.

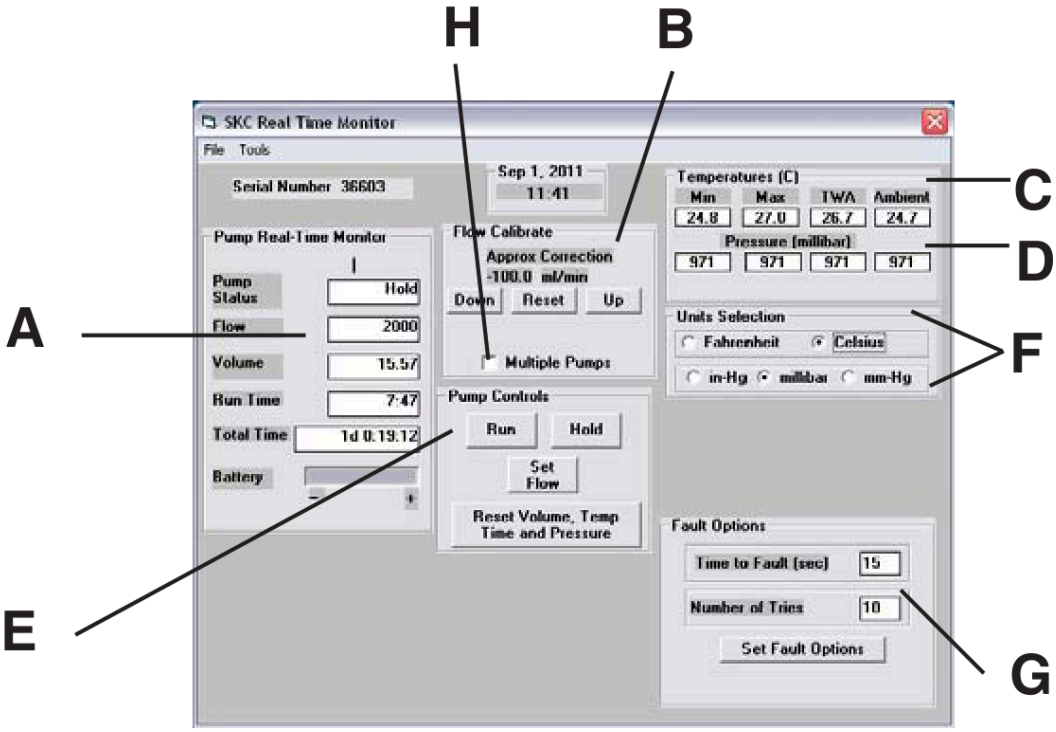


Figure 7. SKC Real Time Monitor. **A** Real-time display (p. 16) · **B** Flow Calibrate (p. 17) · **C** Temperature (p. 18) · **D** Pressure (p. 18) · **E** Pump Controls (p. 18) · **F** Units Selection (p. 18) · **G** Fault Options (p. 18) · **H** Multiple Pumps checkbox (p. 17)

Menus

Menu	Command	What it does
File	**Exit**	Returns to the Pump Manager.
Tools	**Clear Schedule**	Clears the program schedule stored in the pump.
	Clear STEL/Timed Run	Clears a timed sample run.
	Clear History	Clears the pump history.
	Temperature/Pressure Data	Opens the **Environmental Data** window (Temperature and pressure data (p. 28)).
	Set Pump Date/Time	Opens the **Set Date/Time for Pump** window (Setting the pump clock (p. 19)).

Real-time display

The left-hand panel (A) shows the operating state of the connected pump. DataTrac updates the values every 5 seconds, so after you change something the old values may remain for up to 5 seconds.

Field	Shows
Pump Status	**FLOW** — pump running · **HOLD** — pump on hold · **FAULT** — pump in flow fault · **PROG (HOLD)** — a program is in the pump memory and the pump is on hold
Flow	Current flow rate, mL/min
Volume	Volume of air pumped
Run Time	Run time since the last reset
Total Time	Run time since the factory calibration
Battery	Battery charge as a light bar between − (empty, left) and + (full, right): the longer the bar, the fuller the battery

Calibrating the flow

The **Flow Calibrate** area (B) matches the flow of the pump to the reading of a primary-standard calibrator. **Approx Correction** is the approximate difference between the flow the pump displays and the flow the calibrator reads. **Down** and **Up** change the correction step by step, within a range of about ±750 mL/min; **Reset** sets it back to 0.0 mL/min. DataTrac always shows the last correction set on the connected pump.

Calibrate the pump before every sample run; the volumes it records are then correct for that flow rate. While you calibrate, the reading on the calibrator changes but the flow on the pump display does not.

NOTICE

Changing the flow setting on the pump resets the correction to 0.0. The correction for the previous flow is then lost. Calibrate again after every change of flow.

1. Set the pump to the flow rate you want to sample at.
2. Connect the pump inlet to a primary-standard calibrator and read the flow on the calibrator.
3. If the calibrator reads higher than the set flow, lower the correction with **Down**; if it reads lower, raise it with **Up**.
4. Read the calibrator again. Repeat steps 3 and 4 until the calibrator reading is within the tolerance your method requires.

Note
Example. You want to sample at 1500 mL/min. Set the pump to 1500 mL/min. The calibrator reads 1540 mL/min, so set the correction to −40 mL/min and read the calibrator again.

Note
On a pump with CalChek used with a Defender calibrator, a single-point calibration appears in the history as the entries “Pre Cal Flow” and “Post Cal Flow”. A full calibration does not appear in the history; its results are under **View › Calibration Info** in the Pump Manager (CalChek calibration records (p. 30)).

Setting up several pumps

To calibrate the flow, reset volume, temperature and time, or change the display units of several pumps in turn, tick **Multiple Pumps** (H) in the Flow Calibrate area. A separate window opens.

Note
Switch **Comm Checking** off before you set up several pumps (see Comm Checking (p. 23)); otherwise DataTrac reports an error each time you unplug a pump.

1. Set the parameters for the first pump.
2. Unplug the adapter cable from that pump and plug it into the interface port of the next pump. Set its parameters. Repeat for every pump.
3. When all pumps are set up, untick **Multiple Pumps** to return to the Real Time Monitor.

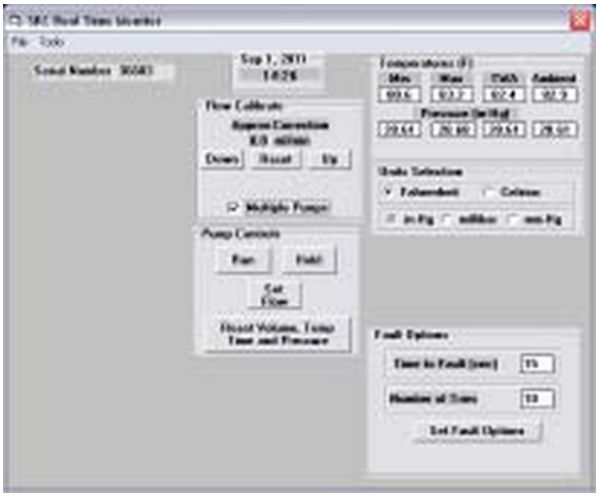


Figure 8. The window that opens when **Multiple Pumps** is ticked.

Temperature and pressure

The temperature area (C) shows the temperature, and the pressure area (D) the atmospheric pressure, of the air entering the pump. Each shows four values:

Min	Lowest value during the run
Max	Highest value during the run
TWA	Time-weighted average of all values
Ambient	Current value

Min, Max and TWA are calculated over the total run time of the pump. The data stays in the pump memory and goes into later calculations until you reset it with **Reset Volume, Temp, Time and Pressure**.

Pump controls

Button	What it does
Run	Starts the pump (RUN).
Hold	Puts the pump on hold (HOLD).
Set Flow	Opens the **Scheduler Set Flow** window to choose the flow rate (Choosing the flow rate (p. 22)).
Reset Volume, Temp, Time and Pressure	Clears the accumulated volume, temperature (Min, Max, TWA), time and pressure (Min, Max, TWA).

Units

The **Units Selection** buttons (F) set the units the pump uses: **Fahrenheit** or **Celsius** for temperature, and **in-Hg** (inches of mercury), **millibars** or **mm-Hg** (millimetres of mercury) for pressure.

Fault options

The **Fault Options** (G) decide how the pump behaves when it cannot hold its flow. Click a box, type the value and click **Set Fault Options**.

Option	Range	Meaning
Time to Fault (sec)	5–240	Seconds the pump keeps running in flow mode before it goes into flow-fault hold.
Number of Tries	0–25	Number of times the pump tries to restart after it has gone into flow-fault hold.

Setting the pump clock

Tools › Set Pump Date/Time opens the **Set Date/Time for Pump** window. Set the date and time with its buttons, then click **Set & Exit** to store them in the pump and return to the Real Time Monitor, or **Exit (No Set)** to return without saving. To match the pump clock to the PC clock instead, see Comparing the pump and PC clocks (p. 24).

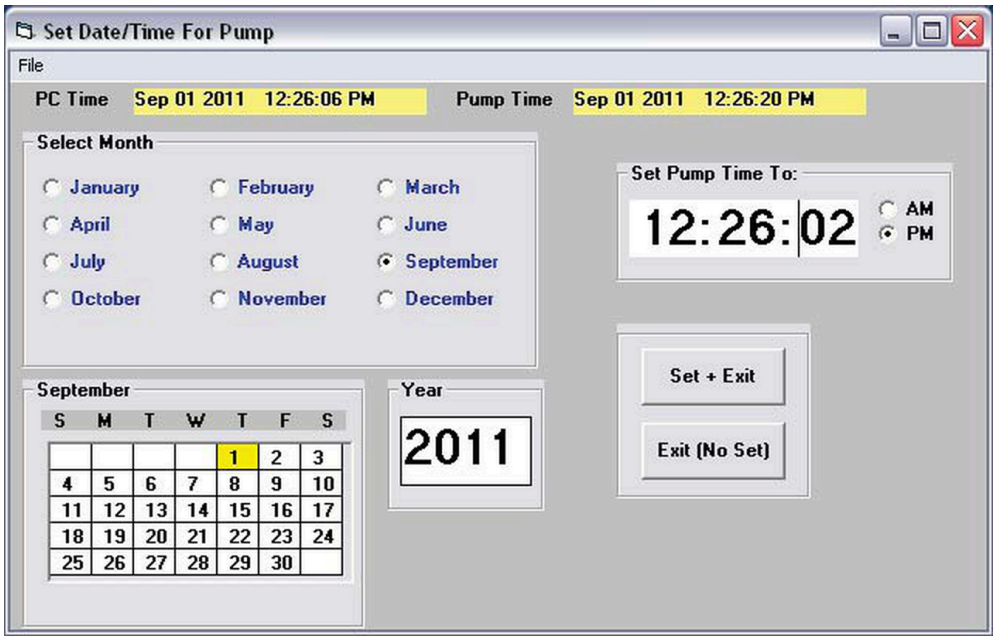


Figure 9. The **Set Date/Time for Pump** window.

Timed samples

The **STEL/Timed Run** window (Figure 10) sets the sample-time function of the pump: one run at a set flow rate for a set time, for example a short-term (STEL) sample.

1. Choose the flow rate with the flow buttons and the scroll bar.
2. In **Run Time**, type the duration of the run, either as hours and minutes or as minutes; the other field follows.
3. Click **To Pump** to program the connected pump.

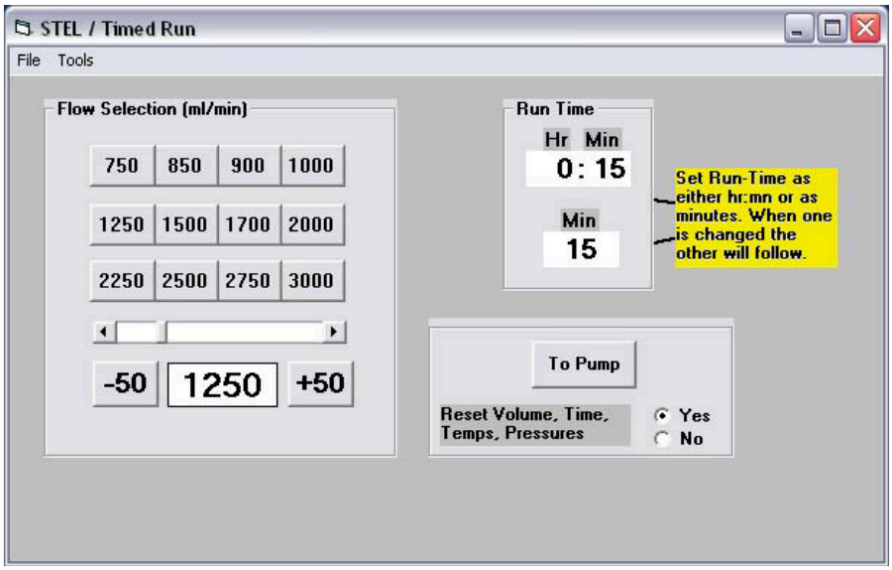


Figure 10. STEL/Timed Run window.

> **Note**
> From DataTrac a timed run can last up to 43 200 minutes (30 days); set on the pump keypad, up to 999 minutes.

Menu	Command	What it does
File	**Exit**	Closes the STEL/Timed Run window.

Menu	Command	What it does
Tools	**Clear STEL in Pump**	Cancels the sample-time run set in the pump.
	Change Default Flow Buttons	Shows a reminder of how to change the default flow rates on the flow buttons.

Programming sampling schedules

In the **SKC Pump Scheduler** you build a list of up to 10 timed sampling runs, each with its own flow rate, and send it to the pump. The same window reads a schedule back from a pump, and saves and prints schedules on the PC.

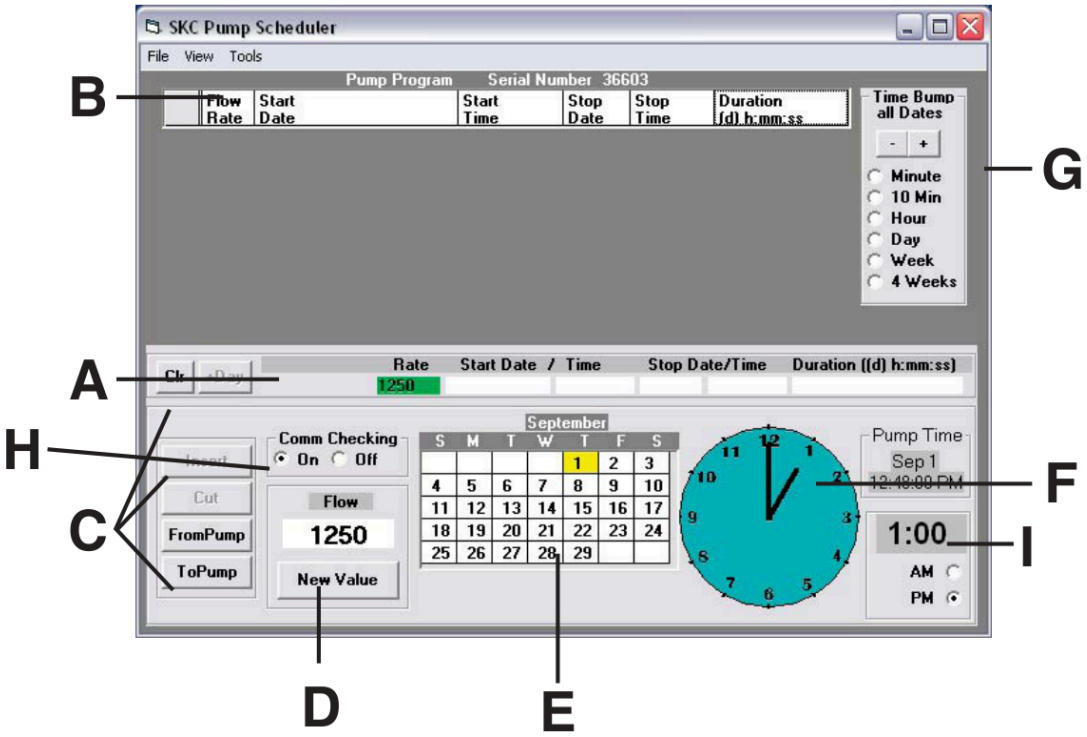


Figure 11. SKC Pump Scheduler. **A** Program Edit Bar (p. 21) · **B** Pump Program Scheduler (p. 21) · **C** Programming buttons (p. 21) · **D** New Value button (p. 22) · **E** Calendar (p. 23) · **F** Clock (p. 23) · **G** Time Bump buttons (p. 23) · **H** Comm Checking buttons (p. 23) · **I** Digital time display (p. 23)

NOTICE

A CalChek full calibration clears all data in the pump history and in the Pump Program Scheduler. The cleared data is lost. Save the history and the schedule to the PC before a full calibration.

Menus

Menu	Command	What it does
File	**Open**	Opens a program saved on the PC.
	Save	Saves the program on the PC.
	Print	Prints the schedule shown on screen.
	Exit	Closes the Pump Scheduler.

Menu	Command	What it does
View	**History**	Opens the **SKC Pump History** window.
	Real Time Monitor	Opens the **SKC Real Time Monitor**.
	Scheduler Options	Opens the **SKC Pump Program Settings** window (Run-time options (p. 24)).
	Clock Resolution	Sets the step of the clock face (Clock (p. 23)).
Tools	**Clear History**	Clears the pump history.
	Clear Schedule	Clears the program schedule.
	Compare Pump Clock/PC Clock	Opens the **Date/Time Display** window to synchronise the clocks (Comparing the pump and PC clocks (p. 24)).

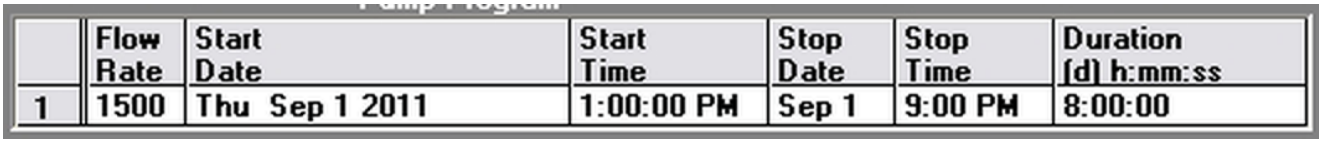
Program Edit Bar

Each sampling run is put together in the **Program Edit Bar** (A). Choose a value with the controls below the bar — New Value, Calendar, Clock — and then click the cell it belongs in. A run consists of:

Rate	Flow rate, mL/min
Start Date	Date the run starts
Start Time	Time the run starts
Stop Date	Date the run stops
Stop Time	Time the run stops
Duration	Total run time, in days, hours, minutes and seconds — calculated from the start and stop

Pump Program Scheduler

The **Pump Program Scheduler** (B) is the list of runs that will be sent to the pump memory. It holds up to 10 runs. Insert a finished run from the edit bar with **Insert**.



	Flow Rate	Start Date	Start Time	Stop Date	Stop Time	Duration [d] h:mm:ss
1	1500	Thu Sep 1 2011	1:00:00 PM	Sep 1	9:00 PM	8:00:00

Figure 12. The **Pump Program Scheduler** list holding one pump program.

Programming buttons

Button	What it does
Clr	Clears the run in the Program Edit Bar.
+Day	Moves the run in the edit bar on by one day — the quick way to program the same times on consecutive days.
Insert	Adds the run in the edit bar to the Pump Program Scheduler.
Cut	Removes the selected (highlighted) run from the scheduler and puts it in the edit bar for editing. Double-clicking the run number, or the line number left of the Rate column, does the same.
FromPump	Reads the schedule stored in the pump and shows it in the scheduler (download).
ToPump	Writes the schedule in the scheduler to the pump (upload).

NOTICE

Double-clicking a run in the scheduler moves it to the edit bar, and whatever was in the edit bar before is erased. To edit a run, double-click it, but finish any edit already in progress first.

Sending the schedule to the pump

> **Note**
> Before you click **ToPump**, set the run-time options (Run-time options (p. 24)) and clear the pump history — either with the **Clear History** option there or with **Tools › Clear History**.

1. Click **ToPump**. A dialog box asks you to confirm writing the program to the pump with the serial number shown.
2. Click **OK**. The message “Program Loaded” confirms the upload.

The pump display then shows the PROG icon until all programmed runs are completed. To check what a pump has been programmed with, connect it and click **FromPump**.

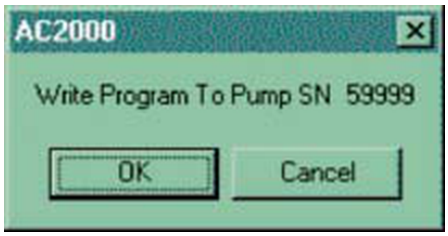


Figure 13. The dialog box after **ToPump**.

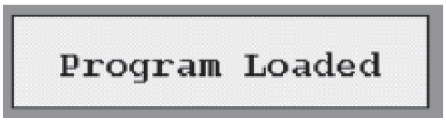


Figure 14. The **Program Loaded** dialog box.

Saving, opening and printing programs

File › Save saves the schedule on the PC as a program file with the extension **.pgm**; **File › Open** opens a saved one, and **File › Print** prints the schedule shown on screen.

Choosing the flow rate

New Value (D) opens the **Scheduler Set Flow** window. Click one of the flow buttons, or fine-tune the value with the scroll bar; the value appears in the display cell. **OK** enters it into the Rate cell of the edit bar. **Previous** returns the display to the flow rate set on the pump before.

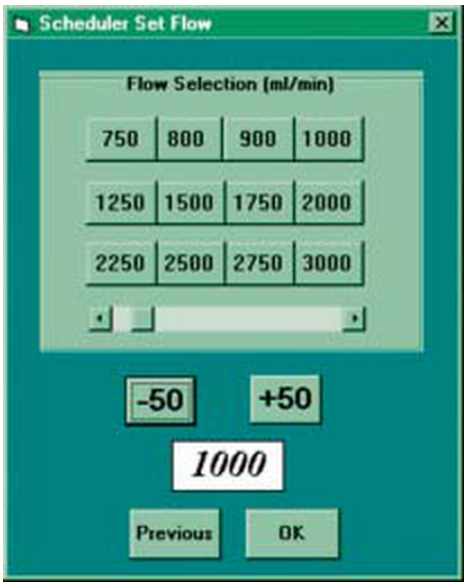


Figure 15. The **Scheduler Set Flow** window.

Calendar

The **Calendar** (E) shows the 28 days within which the pump can be programmed; runs cannot be scheduled further ahead. Click a date, then click the Start Date or Stop Date cell to enter it.

Clock

The **Clock** (F) has a clock face, a digital display of the time on the face, **AM** and **PM** buttons, and the current pump date and time. To set a start or stop time, click the edge of the clock face, click **AM** or **PM**, then click the Start Time or Stop Time cell.

The edge of the face is divided into steps of 10, 15 or 30 minutes or 1 hour. Choose the step with **View › Clock Resolution**, or by clicking the edge of the face between the digits.

> **Note**
> **Example.** To set 4:15 PM, choose the 15-minute resolution, click the edge of the face at 4:15 and click **PM**.

Typing a time

For a time that does not fall on a clock step, use the digital time display (I). Double-click it to highlight the time and type the time you want, including the colon; to change only some digits, select them by dragging across them. Then click the time cell in the edit bar.

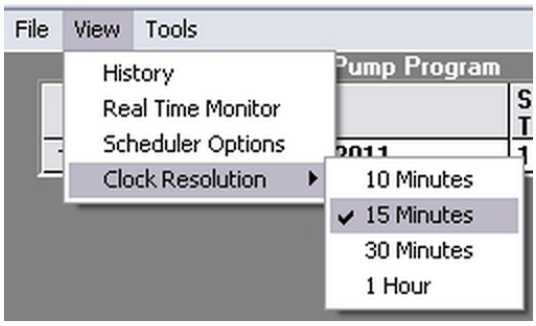


Figure 16. The **Clock Resolution** command and its choices.

Time Bump

The **Time Bump** buttons (G) shift every start and stop time in the scheduler at once. Choose the interval — Minute, 10 Min, Hour, Day, Week or 4 Weeks — then click **+** to add it to all runs or **−** to subtract it.

Comm Checking

Comm Checking (H) watches the cable connection to the pump; it is **On** by default. If the cable comes loose, an error message appears: reconnect the pump and click **Retry**.

When you program several pumps one after the other, click **Off**, so that the message does not appear each time you unplug a pump.

> **Note**
> With Comm Checking off, the pump goes into sleep mode 5 minutes after its last exchange with the PC.



Figure 17. The error message when Comm Checking finds no connection.

Comparing the pump and PC clocks

Tools › Compare Pump Clock/PC Clock opens the **Date/Time Display** window, which shows both clocks and lets you set the pump to the PC time.

NOTICE

The pump clock can be reset only after the pump history has been cleared, and DataTrac asks you to clear it. The cleared history is lost. Save the history first if you still need it.

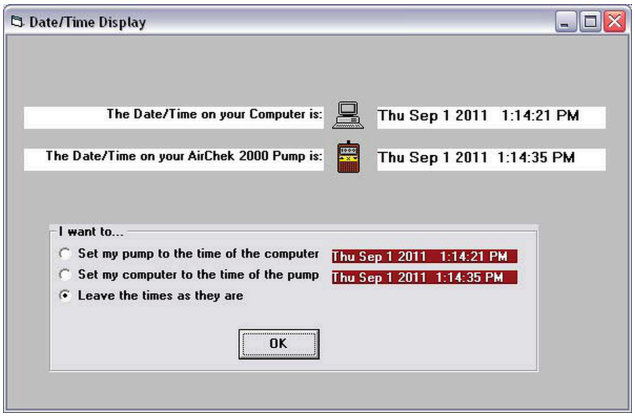


Figure 18. The **Date/Time Display** window.

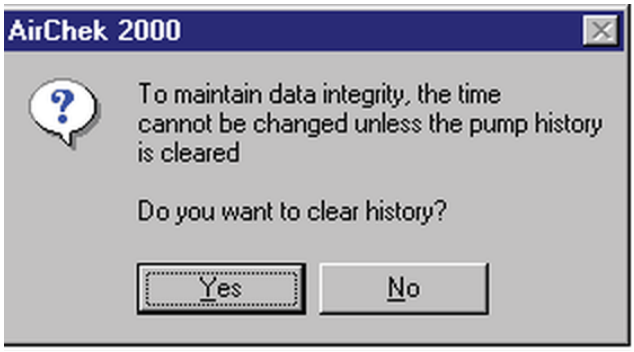


Figure 19. The **Clear History** message.

Run-time options

View › Scheduler Options opens the **SKC Pump Program Settings** window (Figure 20). The options you choose there are sent to the pump together with the schedule when you click **ToPump**. Click **OK** to keep them and return.

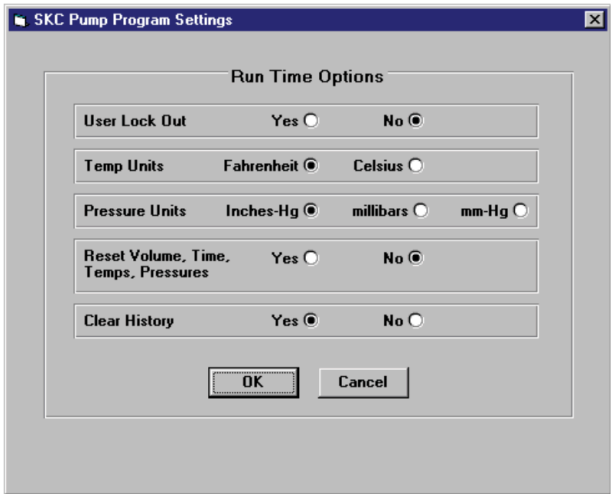


Figure 20. SKC Pump Program Settings.

Option	Effect
User Lock Out — Yes / No	**Yes** stops anyone from changing the pump's operating parameters, even with the security code on the pump keypad. The wearer can still scroll through the data display.
Temp Units	Fahrenheit or Celsius.
Pressure Units	Inches Hg, millibars or mm Hg.
Reset Volume, Time, Temps, Pressures — Yes / No	**Yes** sets the accumulated volume, run time, minimum and maximum temperatures and the pressure data to zero.
Clear History — Yes / No	**Yes** clears the pump history. As a rule, clear the history before every new schedule.

Example: one working week

The pump is to sample at a constant 1000 mL/min from 8:00 AM to 4:00 PM every day from Monday to Friday. This section builds that schedule in the **SKC Pump Scheduler** step by step.

1. Flow rate. Click **New Value**. In the **Scheduler Set Flow** window, click **1000** and then **OK**. “1000” appears in the Rate cell of the Program Edit Bar.
2. Date. Click a Monday in the Calendar; the date is highlighted. Click the Start Date cell, then the Stop Date cell: both now show that Monday.
3. Start time. Click the clock face at 8 — the hands and the digital display show 8:00 — click **AM**, then click the Start Time cell. It shows 8:00 AM.
4. Stop time. Click the clock face at 4, click **PM**, then click the Stop Time cell. It shows 4:00 PM, and the Duration cell shows 8 hours.
5. Insert. Click **Insert**. The run appears in the Pump Program Scheduler: 1000 mL/min from 8:00 AM to 4:00 PM on Monday. The run also stays in the edit bar.
6. Click **+Day**. The start and stop dates in the edit bar move on to Tuesday.
7. Click **Insert** to add Tuesday's run to the scheduler.
8. Repeat **+Day** and **Insert** until Wednesday, Thursday and Friday are in the scheduler. Each day needs its own run.

	Flow Rate	Start Date	Start Time	Stop Date	Stop Time	Duration [d] h:mm:ss
1	1000	Mon Sep 5 2011	8:00:00 AM	Sep 5	4:00 PM	8:00:00
2	1000	Tue Sep 6 2011	8:00:00 AM	Sep 6	4:00 PM	8:00:00
3	1000	Wed Sep 7 2011	8:00:00 AM	Sep 7	4:00 PM	8:00:00
4	1000	Thu Sep 8 2011	8:00:00 AM	Sep 8	4:00 PM	8:00:00
5	1000	Fri Sep 9 2011	8:00:00 AM	Sep 9	4:00 PM	8:00:00

Figure 21. The pump program for the working week, one line per day.

9. Choose **View › Scheduler Options** and set the run-time options you need — clearing the history, at least (see Run-time options (p. 24)).
10. Click **ToPump**. DataTrac writes all runs in the scheduler to the connected pump.
11. To keep the schedule for later use or editing, choose **File › Save**; it is saved as a program file (.pgm).
12. To print the schedule, choose **File › Print**.

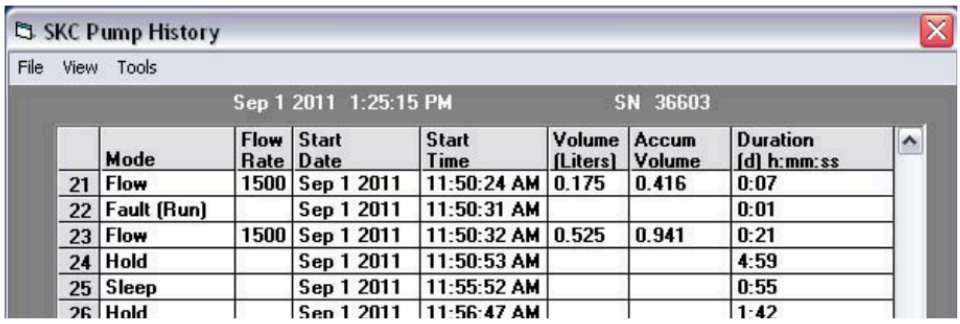
NOTICE

Tools › Clear Schedule erases the schedule both on screen and in the memory of the connected pump. The erased schedule is lost. Save the schedule with File › Save first if you still need it.

13 To erase the schedule on screen and in the pump, choose **Tools › Clear Schedule**.

Pump history

The pump records every change of operating state — run, hold, fault, set-up — with its flow, time and volume. The **SKC Pump History** window shows that record for the connected pump, and saves and prints it.



	Mode	Flow Rate	Start Date	Start Time	Volume (Liters)	Accum Volume	Duration (d) h:mm:ss
21	Flow	1500	Sep 1 2011	11:50:24 AM	0.175	0.416	0:07
22	Fault (Run)		Sep 1 2011	11:50:31 AM			0:01
23	Flow	1500	Sep 1 2011	11:50:32 AM	0.525	0.941	0:21
24	Hold		Sep 1 2011	11:50:53 AM			4:59
25	Sleep		Sep 1 2011	11:55:52 AM			0:55
26	Hold		Sep 1 2011	11:56:47 AM			1:42

Figure 22. SKC Pump History window.

Menus

Menu	Command	What it does
File	**Save**	Saves the history on the PC as a history file (.hst); open it later in **Archive History**.
	Print	Prints the history shown.
	Exit	Closes the window and returns to the previous one.
View	**Temperature/Pressure**	Opens the **Environmental Data** window (Temperature and pressure data (p. 28)).
	Back Pressure Profile	Opens the **Back Pressure Monitor** window (Back pressure profile (p. 28)).
Tools	**Clear History**	Clears the history on screen and in the pump memory.

Reading the history

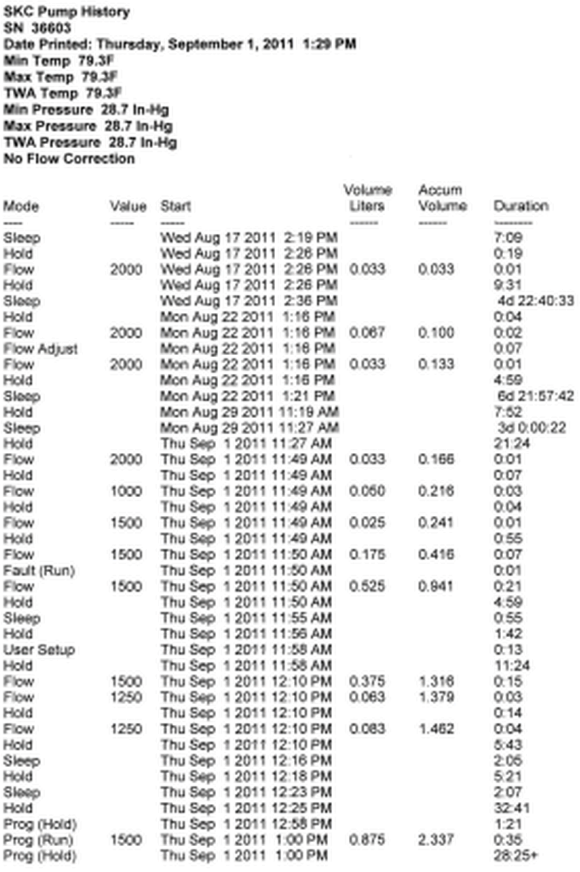
The history stays on screen and in the pump memory until it is cleared. The pump keeps up to 40 entries: once more than 40 operations have taken place since the last clearing, the oldest are overwritten and the latest 40 are shown. Each entry gives the mode of the pump and these values:

Flow Rate	Flow rate, mL/min
Start Date, Start Time	When the entry began
Volume (Litres)	Flow rate × duration, in litres
Accum Volume	Running total of the volume pumped, in litres
Duration	How long the entry lasted

Pump modes in the history

Mode	Meaning
Flow	Pump running at constant flow

Mode	Meaning
Hold	Pump on hold
Flow Fault	A flow fault occurred
Low Batt	Battery depleted
Prog (Flow)	Pump running while executing a program
Prog (Hold)	Pump on hold while executing a program
Prog (Sleep)	Pump in sleep mode while executing a program
User Setup	The pump's keypad menus were opened and the pump was being set up by the user
Flow Adjust	The flow rate or the flow correction was adjusted by the user
Timed Run	Pump running a preset sampling time (sample-time function)
Sleep	Pump in sleep mode
Pre-Cal Flow	First calibration average, with date and time, of a CalChek single-point calibration
Post-Cal Flow	Final calibration average, with date and time, of a CalChek single-point calibration



SKC Pump History
SN 36603
Date Printed: Thursday, September 1, 2011 1:29 PM
Min Temp 79.3F
Max Temp 79.3F
TWA Temp 79.3F
Min Pressure 28.7 In-Hg
Max Pressure 28.7 In-Hg
TWA Pressure 28.7 In-Hg
No Flow Correction

Mode	Value	Start	Volume Liters	Accum Volume	Duration
Sleep		Wed Aug 17 2011 2:19 PM			7:09
Hold		Wed Aug 17 2011 2:26 PM			0:19
Flow	2000	Wed Aug 17 2011 2:26 PM	0.033	0.033	0:01
Hold		Wed Aug 17 2011 2:26 PM			9:31
Sleep		Wed Aug 17 2011 2:36 PM			4d 22:40:33
Hold		Mon Aug 22 2011 1:16 PM			0:04
Flow	2000	Mon Aug 22 2011 1:16 PM	0.067	0.100	0:02
Flow Adjust		Mon Aug 22 2011 1:16 PM			0:07
Flow	2000	Mon Aug 22 2011 1:16 PM	0.033	0.133	0:01
Hold		Mon Aug 22 2011 1:16 PM			4:59
Sleep		Mon Aug 22 2011 1:21 PM			6d 21:57:42
Hold		Mon Aug 29 2011 11:19 AM			7:52
Sleep		Mon Aug 29 2011 11:27 AM			3d 0:00:22
Hold		Thu Sep 1 2011 11:27 AM			21:24
Flow	2000	Thu Sep 1 2011 11:49 AM	0.033	0.166	0:01
Hold		Thu Sep 1 2011 11:49 AM			0:07
Flow	1000	Thu Sep 1 2011 11:49 AM	0.050	0.216	0:03
Hold		Thu Sep 1 2011 11:49 AM			0:04
Flow	1500	Thu Sep 1 2011 11:49 AM	0.025	0.241	0:01
Hold		Thu Sep 1 2011 11:49 AM			0:55
Flow	1500	Thu Sep 1 2011 11:50 AM	0.175	0.416	0:07
Fault (Run)		Thu Sep 1 2011 11:50 AM			0:01
Flow	1500	Thu Sep 1 2011 11:50 AM	0.525	0.941	0:21
Hold		Thu Sep 1 2011 11:50 AM			4:59
Sleep		Thu Sep 1 2011 11:55 AM			0:55
Hold		Thu Sep 1 2011 11:56 AM			1:42
User Setup		Thu Sep 1 2011 11:58 AM			0:13
Hold		Thu Sep 1 2011 11:58 AM			11:24
Flow	1500	Thu Sep 1 2011 12:10 PM	0.375	1.316	0:15
Flow	1250	Thu Sep 1 2011 12:10 PM	0.063	1.379	0:03
Hold		Thu Sep 1 2011 12:10 PM			0:14
Flow	1250	Thu Sep 1 2011 12:10 PM	0.083	1.462	0:04
Hold		Thu Sep 1 2011 12:10 PM			5:43
Sleep		Thu Sep 1 2011 12:16 PM			2:05
Hold		Thu Sep 1 2011 12:18 PM			5:21
Sleep		Thu Sep 1 2011 12:23 PM			2:07
Hold		Thu Sep 1 2011 12:25 PM			32:41
Prog (Hold)		Thu Sep 1 2011 12:58 PM			1:21
Prog (Run)	1500	Thu Sep 1 2011 1:00 PM	0.875	2.337	0:35
Prog (Hold)		Thu Sep 1 2011 1:00 PM			28:25+

Figure 23. Example of an AirChek 2000/3000 history file printout.

Saving, printing and clearing

NOTICE

Tools › Clear History clears the history on screen and in the pump. Clearing cannot be undone. Save the history first if you still need it.

- **File › Save** saves the history on the PC as a history file with the extension **.hst**.
- **File › Print** prints the history shown on screen.

- **Tools › Clear History** clears the history, on screen and in the pump.

Temperature and pressure data

View › Temperature/Pressure opens the **Environmental Data** window. It shows the temperature and pressure of the air entering the pump, accumulated since the history was last cleared. To clear that data, close the window and either choose **Tools › Clear History**, or click **Reset Volume, Temp, Time and Pressure** in the Real Time Monitor (Pump controls (p. 18)).

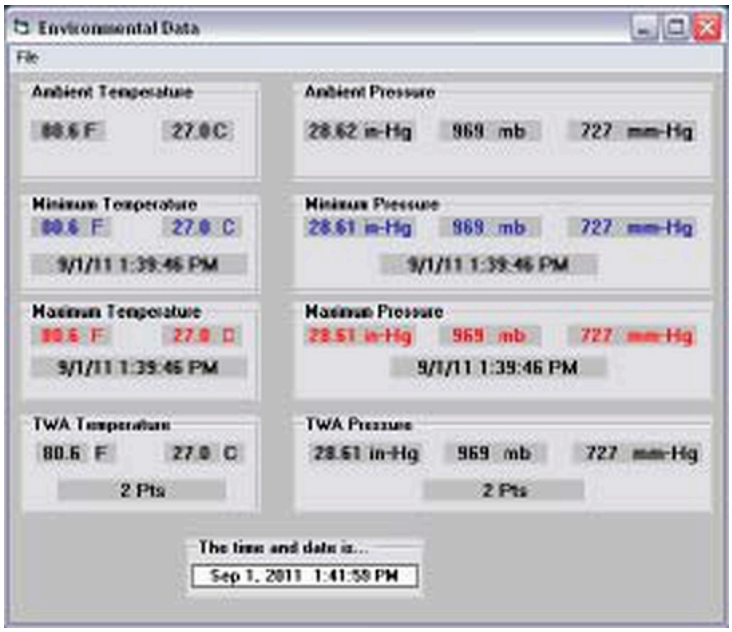


Figure 24. The **Environmental Data** window.

Back pressure profile

View › Back Pressure Profile opens the **Back Pressure Monitor** window, a plot of the back pressure the pump has worked against since the history was last cleared. It is most useful for a timed run or a programmed schedule. Over a sample run the plot can show whether the sampling train was tampered with: a sudden drop in back pressure followed by a return to the normal level can mean that the sample medium was removed and replaced.

> **Note**
> The back pressure profile is for visual comparison only. Values read from it are not actual back pressures. Do not read actual back-pressure values from the plot.

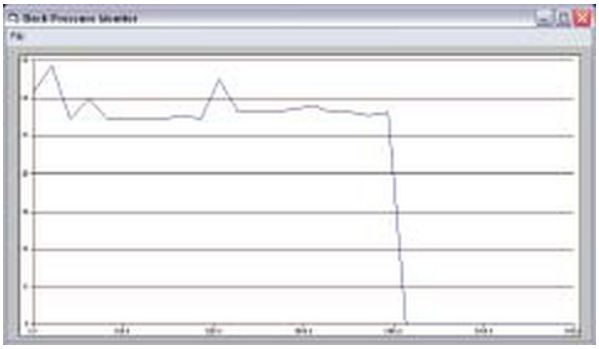


Figure 25. The **Back Pressure Monitor** window.

Archived histories

The **Archive History** window (**View › Archive History** in the Pump Manager) displays a history file saved on the PC. It stays empty until you open a file: choose **File › Open** and select the .hst file. **File › Print** prints it; **File › Exit** returns to the previous window.

Reports and calibration records

A report — the worker exposure profile — combines what you record about a sample on the sample sheet with the history of the pump that took it. Reports can be printed, or saved as text for any word processor or text editor (**File › Save as Text**).

The sample sheet

The **Sample Sheet Setup** window (**View › Sample Sheet** in the Pump Manager) is a form for the details of a sample run. To fill in a field, click it and type. The form holds these fields:

Group	Fields
Worker and sample	Worker (last name), Worker (first name), Worker ID, Sampling Site, Sample Media, Sample ID, Method Followed, Chemicals of Interest, Job Description
Calibration	Pre-Sample Calibrator SN, Post-Sample Calibrator SN
Environmental conditions	Humidity, Atm. Pressure
Analysis	Date Sent To Lab, Date Returned From Lab, Results, Analyzed By
Sign-off	Sampled By and date, Audited By and date, each with a signature line; Comments

Menu	Command	What it does
File	**New**	Clears all fields.
	Load Setup	Opens a setup file (.stp).
	Save Setup	Saves all fields as a setup file (.stp).
	Print Setup	Prints the sample sheet, or the template, shown on screen.
	Load Template	Opens a template file (.tpl).
	Save Template	Saves the ticked fields as a template file (.tpl).
	Exit	Closes the window and returns to the previous one.
Option	**Merge Pump**	Adds the history of the connected pump to the sample sheet shown and creates a worker exposure profile.
	Merge File	Adds the history from a saved history file (.hst) to the sample sheet shown and creates a worker exposure profile.

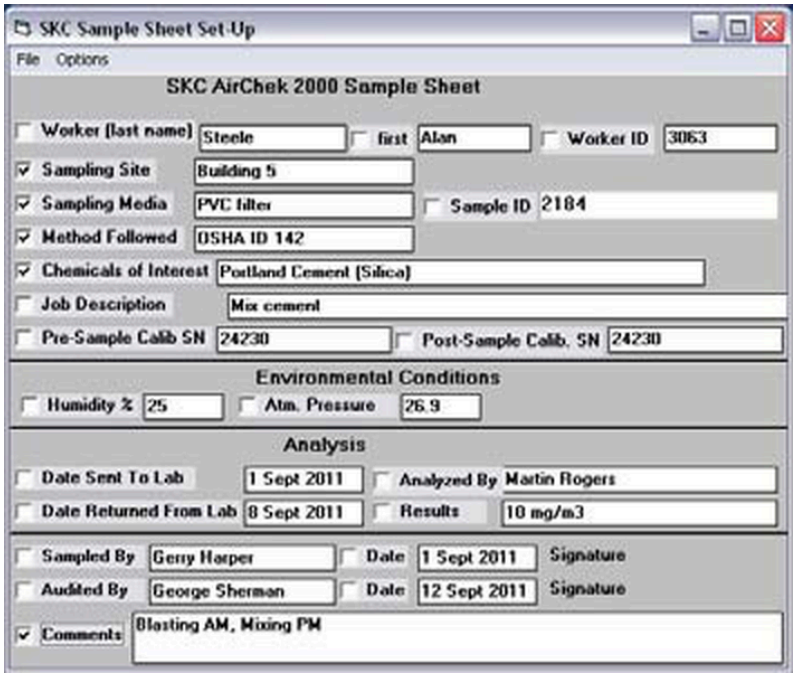


Figure 26. The **SKC Sample Sheet Setup** window.

Setup files and templates

A **setup file** (.stp) keeps everything entered on the sample sheet. A **template** (.tpl) keeps only the fields whose check-box is ticked — the small square in front of each field; click it to tick it. Use a template for details that rarely change, such as the site or the method, so that you do not have to type them again for every sample.

Worker exposure profiles

A worker exposure profile is a sample sheet with a pump history attached. It begins with the report's file name, the date printed, the pump serial number, the minimum, maximum and time-weighted average temperatures and the flow correction, followed by the sample sheet fields and the history (mode, rate, start, volume, accumulated volume and duration of each entry).

1. Fill in the sample sheet, or load the setup file of the sample.
2. Choose **Option › Merge Pump** to attach the history of the connected pump, or **Option › Merge File** to attach a history file saved on the PC.
3. DataTrac saves the profile as a report file (.rpt) and shows it on screen. Print it with **File › Print**.

A saved report opens again from **View › Report** in the Pump Manager.

CalChek calibration records

On a pump with the CalChek feature, the results of the last full calibration are kept in the pump. Open them in the Pump Manager with **View › Calibration Info**: the window shows the actual flow measured at each flow setting, the pump serial number and the date of the last full calibration. **File › Print** prints them; **File › Exit** returns to the Pump Manager.

NOTICE

A full calibration clears the pump history, the run-time parameters and the Pump Scheduler completely. The cleared data is lost. Save the history and the schedule to the PC beforehand.

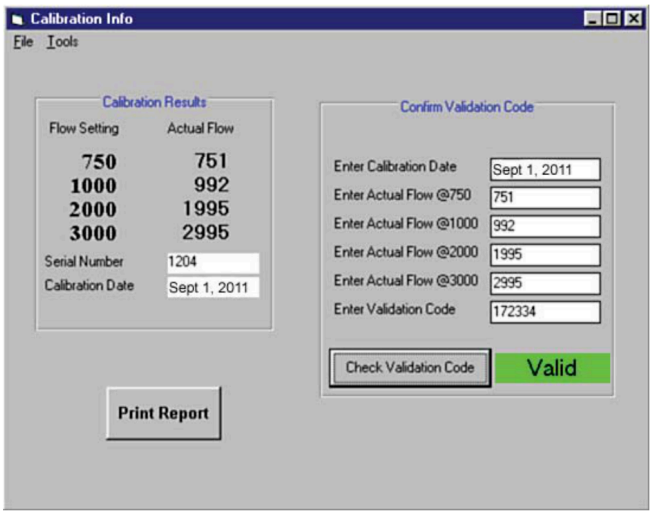


Figure 27. Calibration Info: calibration results (left) and validation of a printed report (right).

Checking a printed calibration report

Each printed calibration report carries a validation code. With it you can check whether the printed figures have been altered.

> **Note**
> Validation needs pump firmware 2.62 or higher and DataTrac 2000 version 3.62 or higher.

1. In the Pump Manager, choose **View › Calibration Info**, then **Tools › Confirm Validation Code**.

   > **Note**
   > Enter the date as **mmm dd, yyyy** — for example Aug 18, 2011.

2. Enter the calibration date from the printed report, each actual flow, and the validation code.
3. Click **Check Validation Code**. The box next to the button turns green and reads “valid” if the data is intact, or red and “invalid” if it has been altered.

NOTICE

The full-calibration data stays in the pump until the next full calibration with CalChek replaces it, or until the pump has recorded more than 36 history entries; after either, the old data is lost. Clearing the history does not clear it. Print the calibration records with **File › Print** beforehand if you still need them.

History files in a spreadsheet

A saved history file (.hst) is a plain text file. It can be imported into a spreadsheet or another program for your own evaluation; this section explains how to read its fields.

Layout of a history file

The file starts with a header, followed by one line per history entry. In the entry lines the columns are separated by the character given in the header — a tab by default.

Line	Example	Content
1	`HISTORY FILE`	File-type identifier (shown in full as “AC2000/3000 HISTORY FILE”)
2	`3280`	DataTrac 2000 software revision × 1000

Line	Example	Content
3	`SN 627`	Serial number of the pump
4	`35898.637581`	Date and time the file was saved — see Time fields (p. 32)
5, 6, 7	`Min Temp 75.2F`	Minimum, maximum and time-weighted average temperature while the pump was running (not updated while the pump is on hold)
then, if set	`Flow Correction …`	The flow correction, for example "**`Approximately -20 ml/min`**"
next	`9`	ASCII code of the column separator; 9 is the tab character (default)
next	`8`	Number of history entries that follow
one per entry	`257 0 35898.637245 35898.637581`	The entries, most recent first: column 1 pump mode (Mode fields (p. 32)), column 2 flow rate, column 3 start date/time, column 4 stop date/time

Mode fields

The mode in column 1 is a decimal number. Convert it to hexadecimal — most scientific calculators and spreadsheet programs can do this — and read it as a sum of the mode values below.

Mode values (hexadecimal)

Mode	Hex
HOLD	001
RUN	002
FAULT	004
SLEEP	008
LOW BATTERY	010
SET FLOW	020
PROGHOLD	040
PROGRUN	080
STEL	100
LOCKOUT	200
USER SETUP	400
RESET	800
SINGLE POINT CAL	1000

Examples

Decimal	Hex	Modes
1	001	HOLD
257	101	STEL + HOLD
258	102	STEL + RUN
261	105	STEL + FAULT + HOLD
262	106	STEL + FAULT + RUN
1025	401	USER SETUP + HOLD
1282	502	USER SETUP + STEL + RUN
1314	522	USER SETUP + STEL + SET FLOW + RUN

So 1314 (hex 522) means the pump's flow or flow correction was being adjusted in its keypad menus, and 258 (hex 102) that the pump was running a STEL sample.

Time fields

A time field counts days since midnight on 30 December 1899. The whole number is the number of days; the fraction is the part of the day that has passed — 0 is midnight, 0.5 is noon and 0.9999884 one second before midnight.

Time value	Means
0.25	30 Dec 1899, 06:00
0.75	30 Dec 1899, 18:00
1.5	31 Dec 1899, 12:00
365.25	30 Dec 1900, 06:00
35065.625	1 Jan 1996, 15:00

Several programs use this date format, Microsoft Excel among them: imported into Excel, the values become dates and times as soon as you format the cells as a date with time (for example m/d/yy h:mm). Widen the column if the date and time are not shown in full.

CHAPTER 5

Communication

The pump–PC interface

DataTrac 2000 exchanges data with the pump through the DataTrac adapter cable, which runs from the interface port of the pump to a USB port of the PC (Figure 2 in Connecting the pump (p. 11)). Windows gives the cable a COM port number. DataTrac finds the cable only on a port numbered from 1 to 9; for another number, change it as described in Changing the COM port (p. 33).

While DataTrac is connected, **Comm Checking** watches the cable connection and reports a loose or removed cable. With Comm Checking off, the pump goes into sleep mode 5 minutes after its last exchange with the PC (see Comm Checking (p. 23)).

If the connection fails

1. Check that the pump display is active; press a key on the pump if it is not.
2. Check the cable connections at the pump and at the PC, then click **Retry**.
3. If the error box appears again, check the COM port number of the adapter cable. DataTrac finds the cable only on a port numbered from 1 to 9 — see Changing the COM port (p. 33).



Figure 28. Connection error box.

> **Note**
> **Ignore** in the error box opens the Pump Manager without a pump; only a limited set of functions is then available.

Changing the COM port

1. Leave the DataTrac adapter cable plugged into the USB port.
2. Open the Windows **Device Manager** (for example, right-click **Computer** in the Start menu and choose **Manage › Device Manager**).
3. Expand **Ports (COM & LPT)** and double-click **USB Serial Port** (shown as COM10 or similar).
4. Open the **Port Settings** tab and click **Advanced**.
5. In **COM Port Number**, select a port from COM5 to COM9, then click **OK**.
6. Connect the pump again as described in First connection (p. 11).

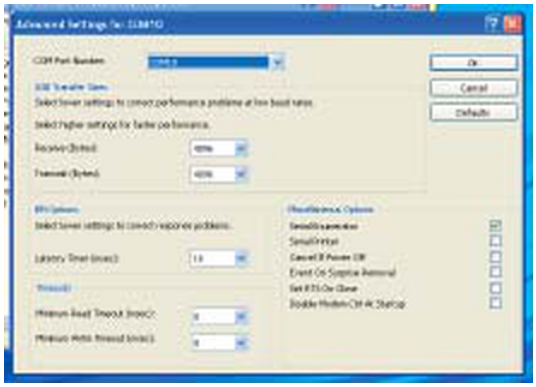


Figure 29. The **COM Port Number** list in the Windows port settings.

CHAPTER 6

Troubleshooting

Problems and remedies

Problem	Remedy
DataTrac 2000 does not install, or the installation ends with an error.	See DataTrac 2000 will not install (p. 35).
The Found New Hardware Wizard offers to install software other than “USB Serial Port”.	Cancel the wizard and plug the adapter cable into a different USB port (First connection (p. 11)).
An error box appears after **Connect to Pump**.	Activate the pump display, check the cable and click **Retry**; if the error persists, set the COM port of the cable to a number from 5 to 9 (If the connection fails (p. 33)).
An error message appears while you work, or each time you unplug a pump.	Comm Checking has detected a loose or removed cable. Reconnect the pump and click **Retry**. When setting up several pumps, switch Comm Checking off (Comm Checking (p. 23)).
A Time Discrepancy Alert appears when you connect.	The PC and pump clocks differ by a day or more, or by more than 5 minutes. Setting the pump clock clears the history — save it first (First connection (p. 11), step 5).
Most menus and buttons are unavailable.	DataTrac runs without a live pump (for example after **Ignore** in the error box). Connect the pump and start DataTrac again.
The pump went to sleep while being programmed.	With Comm Checking off, the pump sleeps 5 minutes after its last exchange with the PC. Press a key on the pump to wake it.
Calibration Info or **Confirm Validation Code** shows no data or is missing.	These functions need a pump with CalChek and firmware 2.62 or higher; validation also needs DataTrac 2000 version 3.62 or higher (Calibration date in the About menu (p. 15)).

DataTrac 2000 will not install

Another running program can block the installation. Close everything else, then install again:

1. Press Ctrl, Alt and Delete together to open the list of running applications.
2. Select each application except “Explorer” and “Systray” and end it with **End Task**. Repeat until only “Explorer” and “Systray” are left.
3. Disable any anti-virus or disk-tool program on the PC; its own documentation explains how.
4. Install DataTrac 2000 again (Installing the software (p. 10)).

If none of these remedies helps, contact Analyt-MTC (see Service, warranty and contacts (p. 37)).

CHAPTER 7

Ordering information

Order from Analyt-MTC with the order code.

For any other version, contact Analyt-MTC.

Description	Order code
DataTrac interface and software kit for the AirChek 2000 and AirChek 3000: DataTrac 2000 software on CD-ROM and DataTrac adapter cable	877-91K

CHAPTER 8

Service, warranty and contacts

Analyt-MTC is your contact for everything concerning DataTrac 2000 and the AirChek pumps: installation and connection problems, technical questions, adapter cables and spare parts, pump calibration, repairs and warranty claims. Warranty claims are handled under Analyt-MTC's terms and conditions.

Contact

ANALYT-MTC Messtechnik GmbH

German Headquarters

Klosterrunsstraße 18, 79379 Müllheim
Germany

+49 7631 5545

info@analyt-mtc.de

French Subsidiary

175 Avenue d'Alsace, 68000 Colmar
France

+33 3 89 41 47 78

info@analyt-mtc.fr

www.analyt-mtc.com

Before you contact Analyt-MTC

Have the following at hand so Analyt-MTC can help you quickly:

- the DataTrac version, pump firmware revision, pump serial number and build number from the About menu (Menus (p. 14));
- the version of Windows on the PC;
- what happened, any error message, and the related entries in the pump history (p. 26).

ANALYT-MTC Messtechnik GmbH

Sales, service and calibration

German Headquarters
Klosterrunsstraße 18, 79379 Müllheim
Germany
+49 7631 5545
info@analyt-mtc.de

French Subsidiary
175 Avenue d'Alsace, 68000 Colmar
France
+33 3 89 41 47 78
info@analyt-mtc.fr

www.analyt-mtc.com

AMTC-MN-0021 · Rev. 2 · 2026-10

© 2026 ANALYT-MTC Messtechnik GmbH. All rights reserved. Subject to technical changes without notice.