ANALYT MESSTECHNIK



QUICK START GUIDE

SKC AirChek TOUCH Sample Pump

Safety cautions, charging, first set-up and a basic sampling run with flow rate verification for the SKC AirChek TOUCH sample pump, model 220-5000TC.

AMTC-QG-0003

Read this first

The full safety information is in the Safety chapter of the operating manual (AMTC-MN-0038); read that chapter and the safety cautions below before you charge or run the pump and before you take it into a hazardous location. Not following the safety cautions can cause an explosion, a fire or burns. You can download the operating manual from the product page at analyt-mtc.com.

This guide gets you from the box to your first air sample with the SKC AirChek TOUCH sample pump, model 220-5000TC. It covers the installation and operation cautions you must know before the first use, charging, the first-time settings, and a basic sampling run with flow rate verification. It does not replace the operating manual.

Read Safety cautions (p. 2) below first. Then check Supplied items (p. 6) and work through First use (p. 7) in order: charging, Quick set-up (p. 8) and Running a sample (p. 9).

For anything beyond this guide, see the *SKC AirChek TOUCH Sample Pump — Operating manual* (AMTC-MN-0038): low-flow sampling with sorbent tubes, automatic CalChek flow rate verification and full calibration, timed sample presets, the PC connection, and part replacement other than the battery.

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

How this guide 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.

Safety cautions

The model 220-5000TC is an intrinsically safe air sampling pump. Its label carries the cULus listing mark (file E62011) and the ratings Class I, Groups A, B, C, D; Class II, Groups E, F, G; Class III; temperature code T3C; and Class I, Zone 0, Group IIC. The pump is certified intrinsically safe (Exia). The rating holds only in the approved configuration: the pump with an approved battery pack and no substituted parts. Read every notice below before you charge or run the pump.

Hazardous locations and the battery

WARNING

Charging the pump, or removing and replacing its battery pack, in an atmosphere that may be explosive can ignite it. This can cause an explosion. Charge the pump and change its battery pack only in a non-hazardous area. Do not run the pump from the charging cradle in a hazardous location.

WARNING

A charging cradle that is not approved can damage the pump and impair its intrinsic safety. In a hazardous location, the pump can then ignite an explosive atmosphere. Charge the pump only in an SKC charging cradle 220-800, 220-900 or 220-850. The maximum charge input voltage is U_m = 12 V.

WARNING

A component that is not approved can impair the intrinsic safety of the pump. In a hazardous location, the pump can then ignite an explosive atmosphere. Replace components only with approved parts.

WARNING

Fire, explosion and burn risk. Heating the battery above 100 °C (212 °F) or burning it can cause a fire or an explosion. Replace the battery only with the approved pack, model P75718 or P75718A; any other battery carries the same risk. Never heat the battery above 100 °C (212 °F) or put it in a fire. Do not take the pack apart. Store spare packs in their original package, away from children, until you fit them. Used packs go to battery recycling; check the local rules for your site.

Approved parts and service

WARNING

A battery or charging cradle that is not approved can damage the pump. Powering the pump from any other device or battery pack also voids its intrinsic-safety certification. In a hazardous location, the pump can then ignite an explosive atmosphere. Use only the approved battery packs P75718 and P75718A and the approved charging cradles 220-800 (Standard Charging Cradle), 220-900 (Charging e-Cradle) and 220-850.

WARNING

Opening, disassembling, short-circuiting or crushing the battery pack, or exposing it to fire or to temperatures above 100 °C (212 °F), is dangerous. A damaged or overheated pack can start a fire or explode. Do not tamper with the battery pack. Do not use a repaired or rebuilt battery pack.

NOTICE

If you remove the battery pack while the pump is switched on, the time, the date and other settings are lost. Switch the pump off before you remove the battery pack.

WARNING

Service beyond the external parts can impair the performance of the pump and its UL listing for intrinsic safety. In a hazardous location, the pump can then ignite an explosive atmosphere. Replace only the inlet filter, the battery, the protective screen cover and the belt clip yourself, using approved parts only. Leave any other service to Analyt-MTC. Do not open the pumping compartment.

The warranty consequences of not following these warnings, notes and cautions are set out in Analyt-MTC's terms.

Document information

Title	SKC AirChek TOUCH Sample Pump — Quick start guide
Document number	AMTC-QG-0003
Revision	Rev. 2 — October 2026
Applies to	SKC AirChek TOUCH sample pump, model 220-5000TC
Language	English
Manufacturer	SKC Inc.
Related documents	SKC AirChek TOUCH Sample Pump — Operating manual (AMTC-MN-0038)

Revision history

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

SKC and AirChek are trademarks of their owners. Information in this guide is subject to change without notice. © 2026 ANALYT-MTC Messtechnik GmbH. All rights reserved.

Contents

1 **Supplied items** 6
Check the contents 6
Know the pump 6

2 **First use** 7
Charge the battery pack 7
Switch on and off, read the battery 7
Quick set-up 8
Date and time 8
Display units 8
Screen lock and dimming 9
Running a sample 9
Set the flow rate 10
Verify the flow rate 10
Take the sample 12
Quick timed sample 13
If the pump reports a fault 13

3 **Care and service** 14
Replace the battery pack 14
If the pump does not respond 14
Service and spare parts 14

4 **Specifications** 16
Key data 16

5 **Where to find more** 17
Related documents 17

CHAPTER 1

Supplied items

Check the contents

Every pump comes with a lithium-ion battery pack and a screwdriver set. Which charging cradles, power supplies, tube holders and carry cases are included depends on the kit you ordered; check the delivery against your order. For the contents of each kit, see the operating manual or ask Analyt-MTC. A charging cradle and a power supply are required to charge the pump.

Know the pump

The colour touch screen sits under a protective screen cover; unlatch and lift the cover to use the screen. A status LED on each side of the screen shows what the pump is doing: **flashing green** means the pump or a programmed run is active, **flashing red** means a flow fault. The other parts you will use:

- the recessed **on/off button** on the side;
- the **pump inlet** with its filter in the inlet housing, where the sampling tubing connects (1/4 in inside diameter);
- the **battery pack** on the bottom, held by two screws, with the charging contacts at its lower edge;
- the **belt clip** on the back.

Tap the soft keys on the screen gently with a fingertip or the tip of a fingernail.

CHAPTER 2

First use

Charge the battery pack

Charge the battery pack completely before the first use, in a non-hazardous area and in an approved cradle (see Safety cautions (p. 2)). Charging takes about 3 hours. One power supply can feed one cradle, or a chain of up to five cradles.

1. Connect the cradle power supply: for **one cradle**, plug the single-cradle power supply (220-600) into the power port on the side of the cradle; for **up to five cradles**, press the side connectors of the cradles together, in a chain of up to five Standard Charging Cradles or up to four Standard Cradles and one Charging e-Cradle, and plug the multi-cradle power supply (220-700) into the last cradle.
2. Plug the power supply into a 100–240 V outlet.
3. Line up the contacts on the bottom edge of the pump with the contacts in the cradle and set the pump in.
4. Repeat for each pump.
5. Wait about 3 hours and read the charge status on the cradle (below).

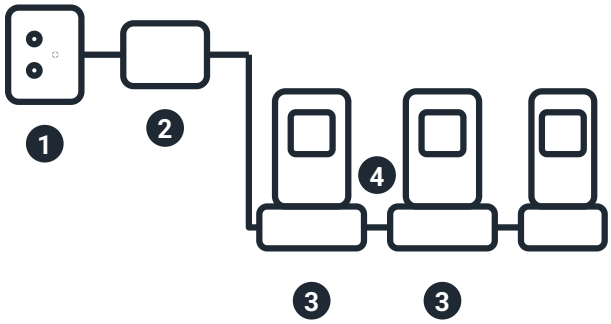


Figure 2-1. Charging chain. (1) Outlet, 100–240 V. (2) Power supply. (3) Charging cradles with pumps, up to five in a chain. (4) Cradle-to-cradle connector.

Reading the charge status

Watch the left LED on the cradle for at least 5 seconds.

LED	Meaning
Steady red	Charging in progress.
Red for 3 s, then green for 1 s, repeating	About 75 % charged.
Steady green	Charging complete (trickle charge).

Switch on and off, read the battery

To switch the pump on, press and hold the recessed power button on the side briefly; the screen lights. Press and hold it briefly again to switch the pump off. A pump that is not running switches itself off after 5 minutes without any input.

The battery icon at the top right of the Home screen shows four bars that disappear as the battery discharges.

Bars	Charge remaining
Four	about 75–100 % (full)
Three	about 50–75 %
Two	about 25–50 %

Bars	Charge remaining
One	about 5–25 %
None	Low-battery fault imminent. The pump will stop and switch off; run data stays in the history, and a fault icon shows when you restart it.

Quick set-up

Set the date, time and units once, before the first sample, so that the run data in the pump history carries the right time stamps. All settings are reached from the Home screen with the *Settings* soft key and then *Device*. The checkmark accepts a value, *Back* returns to the previous screen and *Home* returns to the Home screen; changes are accepted when you leave a screen with Back or Home.

Date and time

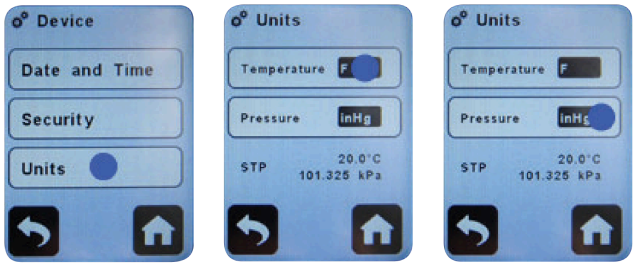
1. Touch *Settings*, then *Device*, then *Date and Time*.
2. Touch *24-Hour Time* to switch the 24-hour display on or off. The setting in effect is the one displayed.
3. Touch *Date Fmt.* to step through the date formats M/D/Y, D/M/Y and Y/M/D.
4. Touch the date and time display to change them.
5. Enter the date on the keypad and touch the checkmark.
6. Enter the time as hh:mm, choose am, pm or 24 and touch the checkmark. You return to the Date and Time screen.



Date and time. Top row: Settings on the Home screen, Device, Date and Time, and switching the 24-hour clock. Bottom row: the date format, opening the date and time, entering the date and entering the time.

Display units

1. Touch *Settings*, then *Device*, then *Units*.
2. Touch *Temperature* to switch between °F and °C.
3. Touch *Pressure* to step through mbar, mmHg and inHg.



Display units: Units on the Device screen, then Temperature and Pressure on the Units screen; the STP line shows the standard conditions (example values).

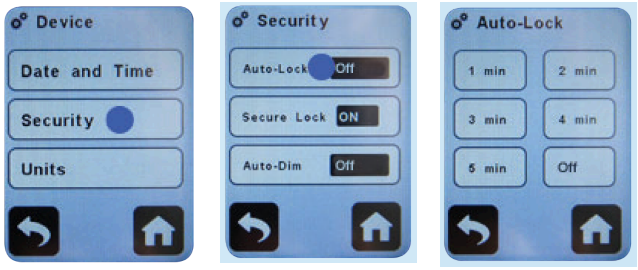
Note
The standard temperature and pressure (STP) criteria for the displayed STP volume are shown on the Units screen, but they can only be changed with the optional DataTrac Pro software on a PC. See the operating manual.

Screen lock and dimming

Under *Settings > Device > Security* you can protect a running pump against accidental key presses and save battery power.

- **Auto-Lock** locks the touch screen and the power button during sampling. To unlock, enter the code 1 2 3 4. Touch *Auto-Lock* and choose an option.
- **Auto-Dim** dims the screen backlight a set time after you touch *Run*. Touch the screen at any time to bring the light back to 100 %. Touch *Auto-Dim* and choose an option.

Secure Lock, which asks for a passcode of your own, is described in the operating manual.



Security on the Device screen, the Security screen, and the Auto-Lock options.

Note
A timed sample always locks the screen, even if Auto-Lock is off.

Running a sample

A basic run has three parts: set the flow rate and verify it through a representative sampling medium, run the sample with a fresh medium, and verify the flow rate again afterwards. This chapter covers a flow rate of 1 to 5 L/min with manual flow rate verification.

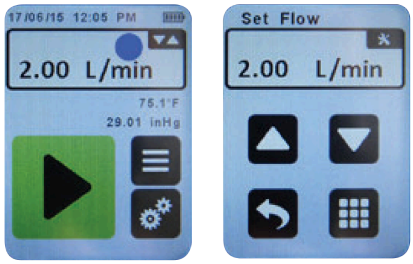
NOTICE

The flow rate shown on the pump is not calibrated traceably to national or international standards, so it cannot confirm the flow. Verify the flow through the complete sampling train with a flowmeter that has a traceable calibration, before and after every sample.

Note
Before you start: charge the battery pack completely, and give a pump that has moved between temperature extremes time to settle.

Set the flow rate

1. On a pump that is not running, touch the flow-rate display. The pump starts and the Set Flow screen opens.
2. Adjust the flow rate with the up and down arrows, or touch the keypad key and type the value. One tap on an arrow changes it by 1; holding a key moves it to the next multiple of 10 and then in steps of 10.



The flow rate display on the Home screen (left) opens the Set Flow screen (right); its tools symbol opens manual flow rate verification.

Verify the flow rate

Connect the pump to a sampling medium representative of the one the method specifies, and to the flowmeter, as in Figure 2-2 (p. 10).

1. With the flow rate set, let the pump run for 5 minutes.
2. Touch the flow-rate display (it now shows the tools icon) to open manual flow rate verification.
3. Connect the verification train, with the same tube holder and pump as for sampling.
4. Touch the up and down arrows until the flowmeter reads the method flow rate.
5. Touch the checkmark; the Manual Cal Completed screen opens.
6. Touch the checkmark to accept the verified flow, or the X to cancel the adjustment. You return to the Home screen.
7. Disconnect the pump from the representative medium and the flowmeter.

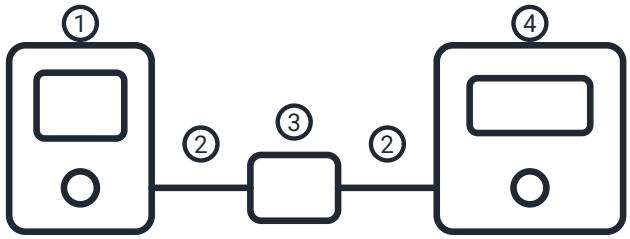
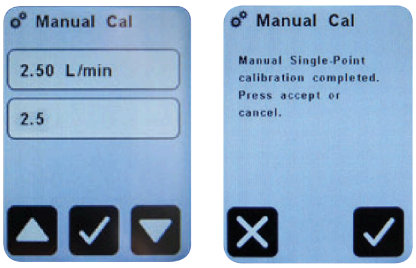


Figure 2-2. Flow rate verification train, and sampling train without the flowmeter. (1) Pump, tubing on the pump inlet. (2) Tubing. (3) Representative sampling medium. (4) Flowmeter with traceable calibration, for example a chek-mate.



Manual flow rate verification: the Manual Cal screen (left) and the completion screen (right).

You can also open manual flow rate verification from the Home screen: *Settings > Calibrate > Manual*. For flow rates from 5 to 500 mL/min, for automatic CalChek verification with a chek-mate flowmeter, and for full calibration after maintenance or repair, see the operating manual.

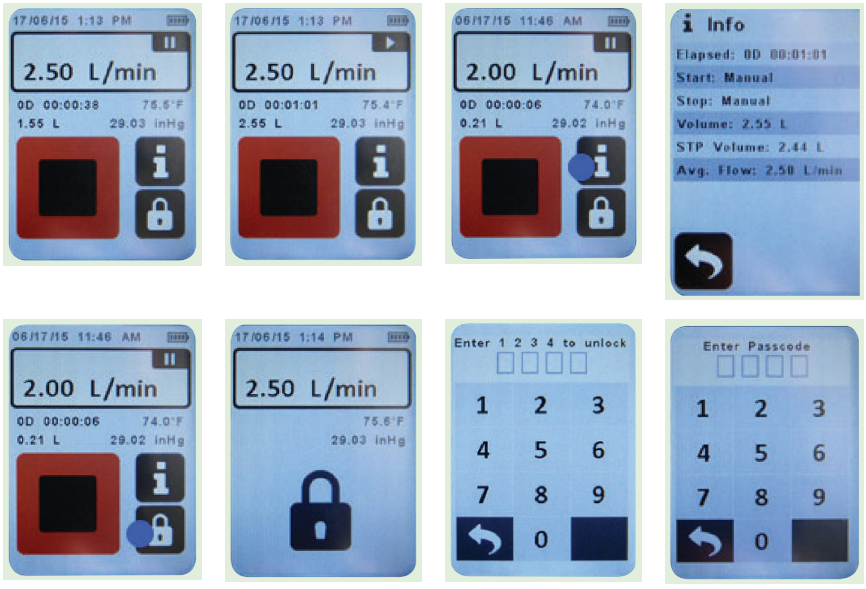
Take the sample

Replace the representative medium with a fresh, unused sampling medium of the type the method specifies. In a non-hazardous area only, you can run the pump from the charging cradle for long samples (see Safety cautions (p. 2)). Use only the approved charging cradle and battery pack.

1. Set the method flow rate (see Set the flow rate (p. 10)) and verify it as above.
2. Connect the sampling train: pump inlet, tubing, sampling medium.
3. Touch *Run*.
4. Write down the sample start time.
5. To end the sample, touch *Stop*. The elapsed time and volume reset; the run data is saved in the history.
6. Write down the stop time.
7. Remove the sampling medium and cap it.
8. Connect the representative medium again and verify the flow rate once more, as in Verify the flow rate (p. 10).



Run on the Home screen (left) and Stop on the running pump (right).



While the pump is running. Top row: pause and resume; Info and the current run data. Bottom row: Lock, the Lock screen, unlocking with 1 2 3 4, and the passcode prompt when Secure Lock is on.

While the pump is running

Pause, resume	Touch the flow-rate display (now the Pause key). The pump stops and the run data freezes. Touch it again (now Resume) to continue.
Run data	Touch the *i* key to see the current run time data.

Lock	Touch *Lock* to lock the screen. To unlock, touch the Lock screen and enter 1 2 3 4 (or your own passcode, if Secure Lock is on).

Quick timed sample

To stop the sample automatically, verify the flow rate and set up the sampling train as above, then set a timer:

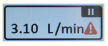
1. Touch *Menu*, then *Timed Sample*, then *Timed*.
2. Enter the method flow rate and touch the checkmark.
3. Enter the total sample time in minutes and touch the checkmark.
4. Touch *Run*. The screen locks automatically; *Stop* ends the sample earlier.



Quick timed sample: Menu, Timed Sample, Timed, the flow rate and the total duration.

If the pump reports a fault

A fault means the pump cannot hold the flow rate: low battery, overloaded medium or kinked tubing.

Fault	What happens, and what to do
 **Flow fault**	If the flow stays out of tolerance for more than 15 seconds, the status LEDs flash red and green, the pump stops and a red fault icon appears. The pump tries to restart every 15 seconds, up to five times. If you clear the cause meanwhile (straighten the tubing, change the medium), the sample and the data collection continue. If not, the pump stops and the time and volume display resets to zero. The run data stays in the history.
 **Low battery**	The pump stops and switches off without warning. The run data is kept. Charge the battery pack; a red fault icon shows when you switch the pump on and disappears during the next sample.

Note
The history (*Menu > History*) shows a fault but not its cause. More functions: see the operating manual.

NOTICE

The history holds 1042 records. After that, each new record overwrites the oldest one without warning, and the overwritten data are lost. Copy the history to a PC with DataTrac Pro every week, before records you need are overwritten.

CHAPTER 3

Care and service

Replace the battery pack

WARNING

Changing the battery pack in an atmosphere that may be explosive can ignite it. This can cause an explosion. Change the battery pack only in a non-hazardous area, and fit only an approved pack, P75718 or P75718A. Read the Safety cautions (p. 2) first.

1. Switch the pump off by pressing and holding the power button briefly. The screen goes dark.
2. With a 2.5 mm hex key, loosen the two screws on the bottom of the battery pack housing and pull the pack away from the pump case.
3. If you fit a new pack, dispose of the used one promptly, without taking it apart or burning it.
4. Line up the new pack (or the same pack again) with the bottom of the pump case. The connector on top of the pack must meet the contacts that protrude from the case.
5. Press the two parts together until they sit snug, then tighten the two screws a little at a time, alternately.
6. Charge a new pack completely before use. A pack that you put back must be charged to at least 25 % (two bars on the battery icon).

If the pump does not respond

Reset the pump's microprocessor when the touch screen or the power button no longer reacts.

1. Remove the battery pack as above and put it back.
2. Touch the screen. If the pump responds, no reset is needed.
3. If it still does not respond, lay the pump on a flat surface with the AirChek TOUCH logo facing up, and remove the battery pack again.
4. Find the two contacts that protrude on the bottom of the pump case, marked RESET.
5. Short them by resting a metal paperclip across both contacts for at least 8 seconds, then remove it, taking care not to damage the contacts and never using a sharp object.
6. Put the battery pack back straight away (it must be charged to at least 25 %) and check that the pump responds. After a reset the start-up screen shows the firmware version.

Service and spare parts

Contact Analyt-MTC for service, calibration, repair, returns, spare parts and technical support for your SKC AirChek TOUCH pump; warranty matters follow Analyt-MTC's terms of sale. Have the pump model and serial number ready; Analyt-MTC's contact details are on the back cover. Do not open the pump housing, and use only approved parts, so that the pump keeps its UL listing for intrinsic safety.

Order from Analyt-MTC with the order codes.

Replacement part	Order code
Battery pack, Li-Ion (P75718A is also approved)	P75718
Inlet filter with O-rings, pack of 3	P4001
Inlet	P20423
Screen cover	P20422
Belt clip	P51824

The lithium-ion battery packs are rated below 100 Wh and tested to the UN Manual of Tests and Criteria, Part III, subsection 38.3. Pumps with these batteries fall under the shipping rules UN 3480 and UN 3481: ask your carrier before you ship a pump.

CHAPTER 4

Specifications

Key data

Flow range, constant	1000–5000 mL/min (5–500 mL/min with a low-flow tube holder)
Operating time on the battery	20 h at 2000 mL/min; 10 h at 5000 mL/min* 8 h or more at 2000 mL/min against 4 kPa (16 in water) back pressure 8 h or more at 5000 mL/min against 5 kPa (20 in water) back pressure
Operating time in the cradle	Unlimited (non-hazardous areas only)
Operating temperature	0–40 °C

* New pump and battery, 37 mm 0.8 µm MCE filter; the time varies with the load. Other specifications: see the operating manual.

CHAPTER 5

Where to find more

This guide covers the first use of the pump. The documents below go further; you can download them from the product page at analyt-mtc.com, or ask Analyt-MTC.

Related documents

Document	Number	What it covers
SKC AirChek TOUCH Sample Pump — Operating manual	AMTC-MN-0038	The full safety information, low-flow sampling with sorbent tubes, automatic CalChek flow rate verification and full calibration, timed sample presets, the PC connection, and part replacement other than the battery.
SKC AirChek TOUCH Sample Pump — Technical data sheet	AMTC-SS-0040	Specifications, back-pressure capability, kits and accessories of the pump.
SKC AirChek TOUCH Lithium-Ion Battery Packs — Technical note	AMTC-TN-0006	The characteristics, care, storage and shipping of the lithium-ion battery packs.

Contact and support

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 call

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

- the model and serial number of the pump;
- the pump information under *Menu > About*;
- what you were doing, and any fault icon or message on the screen.

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-QG-0003 · Rev. 2 · 2026-10

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