ANALYT MESSTECHNIK



QUICK START GUIDE

SKC AirChek Essential and Essential+ Sample Pumps

The parts of the pump, charging, switching on, setting and verifying the flow rate, and a basic sample run with the SKC AirChek Essential keypad pump and the AirChek Essential+ touch screen pump.

AMTC-QG-0015

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Read this first

The full safety information for the AirChek Essential is in the Safety chapter of its operating manual (AMTC-MN-0037). The installation and operation cautions for both pumps are in the technical note AMTC-TN-0005, the caution guide supplied with the pump. Read them and the safety cautions below before you charge or run the pump. Not following them can damage the pump and impair its intrinsic safety. You can download both documents from the product page at analyt-mtc.com.

The SKC AirChek Essential and AirChek Essential+ are personal sample pumps for dust and vapour sampling. This guide takes you from the box to your first sample: the parts of the pump, charging the battery pack, switching on, setting and verifying the flow rate, and starting and stopping a sample. It does not replace the operating manual.

Both pumps share the same housing, battery pack and charging cradles; they differ in the controls. The AirChek Essential has a touch keypad with three keys; the AirChek Essential+ has a touch screen. Where the steps differ, the heading names the pump: AirChek Essential: keypad (p. 6) and AirChek Essential+: touch screen (p. 7).

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.

Safety cautions

WARNING

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

The warranty consequences of opening the pumping compartment are set out in Analyt-MTC's terms.

Document information

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Revision history

Rev.	Date	Change
1	October 2026	First issue.

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CHAPTER 1

Supplied items

Check the contents

The AirChek Essential pump comes with a lithium-ion (Li-Ion) battery pack, an instruction manual and a mini screwdriver kit. The pump needs a charging cradle and a power supply, which are ordered separately or come in a kit. Check the delivery against your order; for the contents of a kit, ask Analyt-MTC.

Know the pump



Figure 1-1. AirChek Essential. A Protective screen cover. B Screen with the three-key touch keypad. C Pump inlet. D Pump status LEDs. E Belt clip (back of the pump). F Inlet housing with filter. G Battery pack. H Charging contacts for the charging cradle. I On/off button.



Figure 1-2. AirChek Essential+. A Protective screen cover. B Touch screen. C Pump status LEDs. D Pump inlet. E Belt clip. F Inlet housing with filter. G Battery pack. H Charging contacts for the charging cradle. I On/off button.

The letters differ between the two pumps: on the AirChek Essential the pump inlet is C and the status LEDs are D; on the AirChek Essential+ the status LEDs are C and the pump inlet is D. The status LEDs on both sides of the screen show what the pump is doing:

- **flashing green:** the pump or a schedule is running;
- **flashing red:** flow fault.

CHAPTER 2

First use

Charge the battery pack

Set up the charging cradle and its power supply, and charge the battery pack completely before you operate the pump. Recharging takes about 3 hours. The pump charges in a Lite Charging Cradle (220-850); one cradle runs from the Single Cradle Power Supply (220-600), and one to five cradles run from the Multi Cradle Power Supply and Power Splitter (220-851).

1. Connect the power supply: for **one cradle**, plug the Single Cradle Power Supply into the power port of the cradle; for **up to five cradles**, connect the Multi Cradle Power Supply to its power splitter and plug the splitter connectors into the power ports of the cradles.
2. Plug the power supply into a 100–240 V wall outlet.
3. Line up the charging contacts on the pump (H) with the contacts in the cradle and set the pump in.
4. Wait about 3 hours and read the charge status on the cradle (below).

Reading the charge status

The left LED on the charging cradle shows the charge status. Watch it steadily for more than 5 seconds.

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

AirChek Essential: keypad

Lift the cover (A) and touch the keys of the touch keypad with a fingertip. A pump that is not running switches itself off after 60 seconds without any input.

Key	Action
On/off button (I), on the side	Press and hold briefly: switches the pump on or off. Press during sampling: locks or unlocks the screen.
Up and down arrows	Touch and hold: increases or decreases the flow rate.
PUMP	Touch: starts or stops the pump and the sample run. Touch and hold: resets the timer.

Set and verify the flow rate

The pump does not display the actual flow rate: only the flowmeter shows it. For the best results, let the pump run for 10 to 15 minutes before you verify the flow rate.

1. Press and briefly hold the on/off button (I) to switch the pump on.
2. With the flowmeter connected to the pump, touch **PUMP** to start the pump.
3. Touch and hold the up or down arrow until the flowmeter shows the flow rate you want.
4. Touch **PUMP** to stop the pump.

Take the sample

1. Touch **PUMP** to start the sample run. The display shows the elapsed time.
2. Touch **PUMP** again to stop the sample run.
3. To reset the timer, touch and hold **PUMP**.

To lock the screen during sampling, so that an accidental touch cannot stop the pump, press the on/off button (I): a lock icon and **LOCKED** appear at the top left of the screen. To unlock the screen, press the on/off button again; the lock icon and **LOCKED** disappear.

AirChek Essential+: touch screen

The pump switches itself off after 5 minutes without any activity. Tap the screen buttons gently with a fingertip:

Area of the touch screen	Buttons
Four active zones	Screen buttons one to four
Lower edge	Navigation buttons Back, Up, Down and Main menu

Main menu

Touch the Main menu button on the touch screen to reach these options:

Option	Use
Auto Lock	Locks the pump display during sampling against accidental taps or tampering.
Info	Shows the pump information: firmware version and pump name.
Sample	Opens the Sample menu, to set and verify the flow rate and start sampling.

Basic sampling

1. Press and briefly hold the power on/off button (I). The screen lights up and shows the Sample menu.
2. Lift the cover (A).
3. Set and verify the flow rate in the Sample menu with the flowmeter.
4. Touch Run to start sampling.

The screen buttons control the sample run:

Screen button	Action
 Run	Starts or resumes sampling.
 Pause	Pauses sampling.
 Stop	Stops sampling.

When the pump is running and Auto Lock is on, press the power on/off button (I) to unlock the screen and bring back the full screen brightness.

CHAPTER 3

Care and service

Service and spare parts

You may replace the external parts yourself: the inlet filter, the battery pack, the protective screen cover and the belt clip. Any other service is done by Analyt-MTC, so that the pump keeps its performance and its intrinsic-safety rating (see Safety cautions (p. 2)). For service, calibration, repair and technical support, contact Analyt-MTC; the contact details are on the back cover.

Accessories

Order from Analyt-MTC with the order codes.

Accessory	Order code
Lite Charging Cradle; needs power supply 220-600 or 220-851	220-850
Single Cradle Power Supply, for one charging cradle, 100–240 V	220-600
Multi Cradle Power Supply and Power Splitter, for 1–5 Lite Charging Cradles only, 100–240 V	220-851
Replacement battery pack, Li-Ion*	P75718A
Medium Flow chek-mate Flowmeter, 0.5–5 L/min, with 9-volt battery; calibration certificate traceable to UK standards	375-0550
The same, with a calibration certificate traceable to ISO standards	375-0550S
The same, with a calibration certificate traceable to NIST standards	Ask Analyt-MTC

* Li-Ion batteries are subject to special shipping regulations.

CHAPTER 4

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 Essential Sample Pump — Operating manual	AMTC-MN-0037	The full safety information and the complete operating instructions for the AirChek Essential.
SKC AirChek Essential Sample Pumps — Technical note	AMTC-TN-0005	The installation and operation cautions for the AirChek Essential and AirChek Essential+.

For the complete operating instructions of the AirChek Essential+, ask Analyt-MTC.

Contact and support

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Before you call

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

- the pump model (AirChek Essential or AirChek Essential+) and its serial number;
- on the AirChek Essential+, the firmware version under **`Info`**;
- what you were doing, and what the status LEDs or the screen showed.

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