ANALYT MESSTECHNIK



OPERATING MANUAL

SKC AirLite Sample Pump

Batteries, flow rate verification and sampling with the AirLite sample pump on three AA cells — 1000 to 3000 mL/min, and 5 to 500 mL/min with one or several sorbent tubes — with faults, specifications and ordering information.

AMTC-MN-0040

Rev. 2 · October 2026

About this manual

The SKC AirLite is a personal air sampling pump that runs on three AA batteries. On its own it samples at 1000 to 3000 mL/min, typically through a filter cassette; with a low flow tube holder it samples at 5 to 500 mL/min through one or several sorbent tubes. It is meant for abatement work, indoor air sampling and emergency response in non-hazardous locations — it is not intrinsically safe.

This manual covers the batteries, flow rate verification and sampling in each of the three set-ups, what the pump does when it cannot hold the flow, its technical data, and the order numbers of accessories and spare parts. Read Safety (p. 5) before you use the pump for the first time. Then pick the chapter for your flow range:

- 1000 to 3000 mL/min, filters and other high flow media: Operation (p. 9);
- 5 to 500 mL/min with one sorbent tube: Low flow sampling with one tube (p. 11);
- 5 to 500 mL/min with two to four sorbent tubes: Low flow sampling with several tubes (p. 13).

The manual applies to the AirLite sample pump, Cat. No. 110-100, and to the kits built around it. Analyt-MTC supplies, services and supports the pump; for questions, repairs and spare parts see Service, warranty and contacts (p. 24).

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

Abbreviations

Abbreviation	Meaning
CPC	Constant pressure controller
EMI	Electromagnetic interference
ID	Inside diameter (of tubing)
IOM	Institute of Occupational Medicine (United Kingdom), which gave the IOM sampler its name
LED	Light-emitting diode
MCE	Mixed cellulose ester (filter material)
NiMH	Nickel-metal hydride (rechargeable cell)
NIOSH	National Institute for Occupational Safety and Health (United States)
OSHA	Occupational Safety and Health Administration (United States)
PVC	Polyvinyl chloride (filter material)
RFI	Radio-frequency interference
RH	Relative humidity

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.

Document information

Title	SKC AirLite Sample Pump — Operating manual
Document number	AMTC-MN-0040
Revision	Rev. 2 — October 2026
Applies to	AirLite sample pump, Cat. No. 110-100, and its kit 110-100K5
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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.

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CHAPTER 1

Safety

Read this chapter before you use the pump for the first time. The AirLite is a simple pump with one important limit: it is not built for explosive atmospheres. The rules in this chapter protect the people working with the pump, the pump itself and your samples.

Hazardous locations

⚠ WARNING

The AirLite is not intrinsically safe. In a hazardous or potentially explosive location it can ignite the atmosphere and cause a fire or an explosion. Never operate it in such a location. Use it only for sampling tasks that do not call for an intrinsically safe pump.

Batteries

The pump runs on three standard AA alkaline cells. Rechargeable AA NiMH cells (1.2 V) may be used, but they give only about half the run time of alkaline cells. Installation (p. 8) describes how to fit them.

NOTICE

Cells left in a pump that is not used for a long time can leak. Leaking cells corrode the battery contacts. Take the batteries out if the pump will not be used for a long time. Fit the cells the right way round, and check the polarity marks (see Figure 2).

Using the pump

- After moving the pump between very different temperatures, let it adjust to the new temperature before you verify the flow or sample.
- Protect the pump from the weather when you sample outdoors.
- Verify the flow rate through the complete sampling train before and after every sample.

NOTICE

The flow adjust screw of the All-in-One adjustable tube holder can be harmed by closing it completely or by an oversized screwdriver. Either can damage the valve or the thread seat. Never close the screw completely, and use only a small screwdriver on it.

Warranty

The warranty lapses if the warnings and cautions in this manual are not followed. For warranty claims and repairs, contact Analyt-MTC (see Service, warranty and contacts (p. 24)).

CHAPTER 2

Product description

Checking the contents

Check the delivery against the table below. If anything is missing, contact Analyt-MTC (see Service, warranty and contacts (p. 24)).

Order code	Contents
110-100	AirLite sample pump with three AA alkaline batteries and screwdriver set
110-100K5	High flow kit: 5 pumps as 110-100 and filter cassette holders, in a hard-sided case

You also need tubing with an inside diameter of 1/4 in., a flowmeter such as the chek-mate (see Flowmeter (p. 21)), and — for 5 to 500 mL/min — the low flow accessories listed in Low flow accessories (p. 21).

Parts of the pump

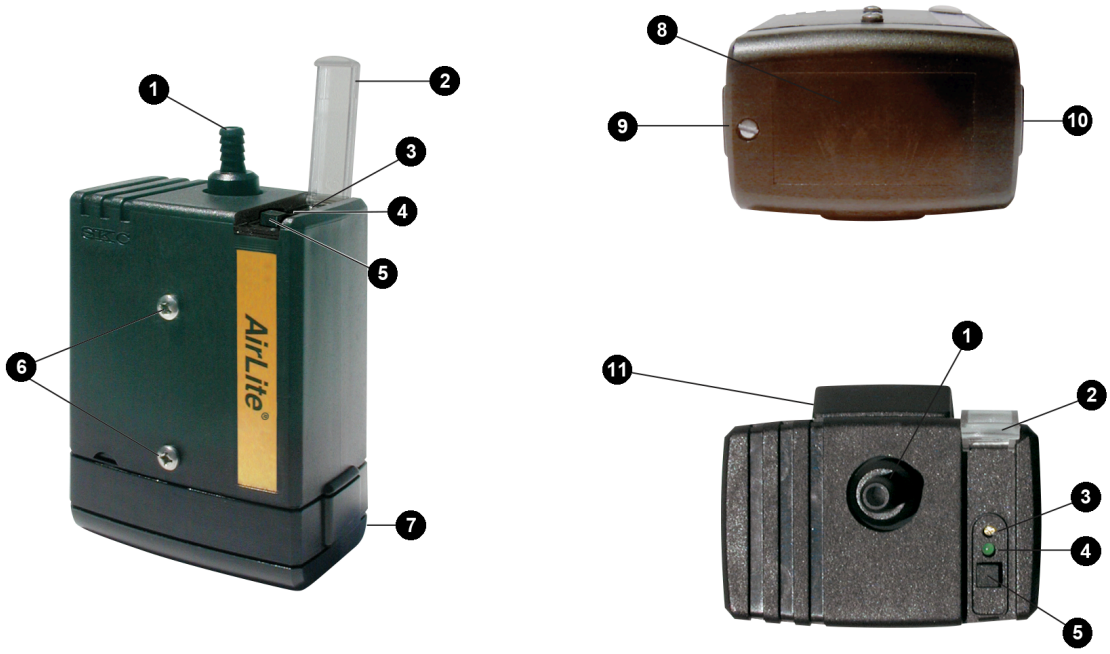


Figure 1. Pump parts. Left: front view; right, top: bottom view; right, bottom: top view.
1 Pump inlet (inlet filter underneath) · **2** Protective control cover (raised in the front view, open in the top view) · **3** Flow adjustment screw · **4** LED · **5** On/off button · **6** Accessory mounting screws · **7** Battery compartment · **8** Battery compartment door · **9** Battery compartment screw · **10** Hinge · **11** Belt clip (back of the pump)

The flow adjustment screw, the LED and the on/off button sit together on top of the pump, under the protective control cover. Lift the cover to reach them. The flow is set with a small screwdriver at the flow adjustment screw: clockwise increases the flow, anticlockwise decreases it.

Switching on and off

Press the on/off button (5 in Figure 1 (p. 6)) once to start the pump, and press it again to stop it. The pump has no display: the LED tells you what it is doing.

Reading the LED

Glance at the LED from time to time while you sample. Its flash pattern shows both the pump status and the battery status.

LED	Meaning
Slow flashes	Pump running normally
Fast flashes	Flow fault; the pump tries to restart (see Flow fault (p. 18))
Double flashes	Low battery: about one hour of run time left
One flash every 8 seconds	Pump stopped: batteries exhausted
Four flashes every 6 seconds	Pump stopped after a flow fault it could not clear

Note
When the batteries are exhausted, the LED shows only that — the flash every 8 seconds takes priority over every other pattern.

CHAPTER 3

Installation

The AirLite runs on three standard AA alkaline cells in a compartment on the bottom of the pump. For the longest run time, fit new cells before every sample.

Fitting or replacing the batteries

You need a slotted screwdriver — the screwdriver set supplied with the pump fits.

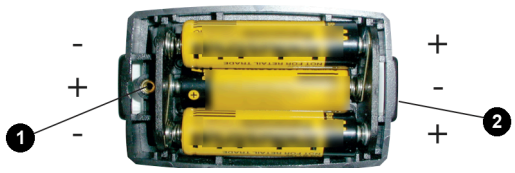


Figure 2. Battery compartment, door removed, with the polarity of the three cells.
1 Screw · **2** Hinge

1. Turn the pump over and loosen the screw of the battery compartment door (9 in Figure 1 (p. 6)).
2. Open the door and take it off.

> **Note**
> Insert each cell the way round shown in Figure 2. Check the + and − marks in the compartment.

3. Take out the old cells, if any, and insert three new ones.
4. Slide the hinge of the door under the lip of the case, close the door and tighten the screw until it holds the door firmly.

Getting the most from the batteries

- New alkaline cells before every sample give the longest run time. Typical run times for several brands and sample media are listed in Run time (p. 20).
- Rechargeable AA NiMH cells (1.2 V) can be used, but expect only about half the run time of alkaline cells.
- Back pressure shortens the run time. As dust builds up on a filter, its resistance rises and the batteries drain faster.
- When the LED shows double flashes, about one hour of run time is left (see Reading the LED (p. 7)).

NOTICE

Cells can leak while the pump is stored for a long time. Leaking cells corrode the battery contacts. Take the batteries out before you store the pump for a long time.

CHAPTER 4

Operation

The pump samples in three ways, each with its own set-up: high flow sampling, 1000 to 3000 mL/min, comes first; low flow sampling with one tube and with several tubes follow. In each, you set and verify the flow with a representative sample medium in line before the sample, take the sample, and check the flow again after it.

In the high flow range the sample medium — typically a filter cassette — is connected straight to the pump inlet, and the pump's own flow adjustment screw sets the flow. Verify the flow with a representative sample medium in line: the same type of medium you will sample with, because its resistance changes the flow the pump delivers.

⚠ WARNING

The AirLite is not intrinsically safe. In a hazardous or potentially explosive location it can ignite the atmosphere and cause a fire or an explosion. Never operate the pump in such a location.

Before you start

- Fit new batteries (see Installation (p. 8)).
- If the pump has come from a much colder or warmer place, let it adjust to the temperature first.
- Verify the flow through the complete sampling train before and after each sample.
- Protect the pump from the weather when you sample outdoors.

Setting and verifying the flow rate



Figure 3. Flow rate verification train with a filter cassette.
1 Flowmeter (chek-mate shown) · **2** Suction port · **3** Tubing · **4** Representative sample medium · **5** Pump inlet

1. Switch the pump on with the on/off button and let it run for 5 minutes before you verify the flow. Leave it running.
2. Prepare the flowmeter as its own instructions describe.
3. Set up the verification train as in Figure 3: flexible tubing from the flowmeter's suction port to the inlet of the representative sample medium, and 1/4 in. ID tubing from the outlet of the medium to the pump inlet.

4. With a small screwdriver, turn the flow adjustment screw on top of the pump — clockwise for more flow, anticlockwise for less — until the flowmeter shows the flow rate your method specifies.
5. Take at least three readings and record their average as the pre-sample flow rate, as OSHA and NIOSH methods require.
6. Press the on/off button to stop the pump. Disconnect the flowmeter and its tubing from the representative medium.

Taking the sample

1. Replace the representative medium with a new, unexposed medium for the sample.
2. Place the medium where your method requires. For personal sampling, clip it to the worker's clothing in the breathing zone and clip the pump to the worker's belt with its belt clip (Figure 4).
3. Press the on/off button to start sampling. Record the start time and the other details your method asks for.
4. Sample for the time your method specifies, checking the LED now and then for the pump and battery status (see Reading the LED (p. 7)).
5. At the end of the sampling period, press the on/off button to stop the pump. Record the stop time and the other details.
6. Cap the sample and send it to the laboratory for analysis, together with the blanks and the sampling records.
7. Check the flow after sampling (see Checking the flow after sampling (p. 10)).



Figure 4. Personal sampling: the pump on the belt, the sample medium in the breathing zone. Left to right: filter cassette, All-in-One tube holder, multi-tube holder.

Checking the flow after sampling

The same post-sample check applies to every set-up in this manual — filter, one tube or several tubes.

1. Switch the pump on and connect the flow rate verification train again, with a representative medium in line.
2. Take three readings and record their average as the post-sample flow rate. Do not touch the flow adjustment during this check.
3. Compare the pre-sample and post-sample flow rates. If they differ by more than ±5 %, note this in the sampling records.

Low flow sampling with one tube

For 5 to 500 mL/min through a single sorbent tube, the pump runs at a fixed 1.5 L/min and the All-in-One adjustable tube holder sets the flow through the tube. A constant pressure controller (CPC) built into the holder keeps that flow steady. For the holder itself, see its own operating instructions.

WARNING

The AirLite is not intrinsically safe. In a hazardous or potentially explosive location it can ignite the atmosphere and cause a fire or an explosion. Never operate the pump in such a location.

Before you start

- You need the All-in-One adjustable tube holder, supplied with a Type A protective tube cover in the Low Flow Adapter Kit, Cat. No. 110-500.
- Fit new batteries, and let the pump adjust to the temperature if it has come from a much colder or warmer place.
- Set the flow through the pump first, then the flow through the tube.
- Verify the flow before and after each sample, as described below.
- Protect the pump from the weather when you sample outdoors.

Note

The built-in CPC draws air through two small holes in its underside, and these can clog. Inspect them from time to time; if needed, clear them with a small pick and blow the loosened particles away with a puff of air.

Setting the pump flow

1. Switch the pump on and let it run for 5 minutes before you verify the flow. Leave it running.
2. Prepare the flowmeter as its own instructions describe, and connect its suction port to the pump inlet with flexible tubing.
3. With a small screwdriver, turn the flow adjustment screw on top of the pump — clockwise for more flow, anticlockwise for less — until the flowmeter shows 1.5 L/min.
4. Remove the tubing from the pump inlet.

Setting the flow through the tube

NOTICE

The holder's flow adjust screw can be harmed by closing it completely or by an oversized screwdriver. Either can damage the valve or the thread seat. Never close the screw completely, and use only a small screwdriver on it.

1. Push the tubing of the All-in-One holder onto the pump inlet (Figure 6).
2. Break both tips off a representative sorbent tube and push it into the rubber sleeve of the holder, with the arrow on the tube pointing towards the holder. The tube must sit tightly in the sleeve, or air leaks past it; the holder comes with two sleeves of different inside diameters.
3. Connect the flowmeter's suction port to the open end of the tube with flexible tubing.
4. Leave the pump flow as it is. With a small flat-blade screwdriver, turn the flow adjust screw on the holder — anticlockwise for more flow, clockwise for less — until the flowmeter shows the flow rate your method specifies.
5. Take at least three readings and record their average as the pre-sample flow rate, as OSHA and NIOSH methods require.
6. Press the on/off button to stop the pump, and disconnect the flowmeter and its tubing from the tube.

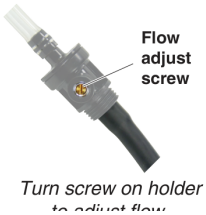


Figure 5. Turn the flow adjust screw on the holder to adjust the flow.

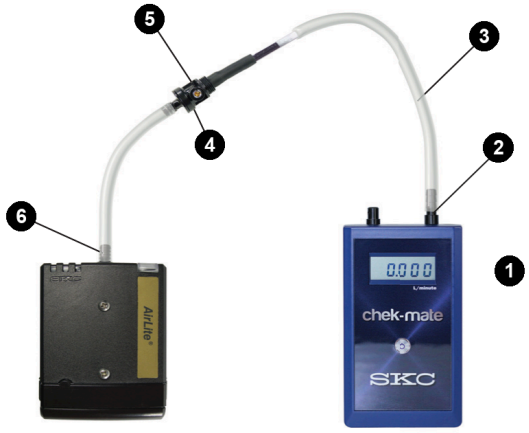


Figure 6. Flow rate verification train with the All-in-One holder. **1** Flowmeter (chek-mate shown) · **2** Suction port · **3** Tubing · **4** All-in-One adjustable tube holder · **5** Flow adjust screw (needle valve) · **6** Pump inlet

Note

If the pump goes into flow fault soon after you attach the holder, the needle valve may be closed: open it slightly by turning the holder's flow adjust screw anticlockwise. If the fault persists, check the two holes in the underside of the built-in CPC and clean them as described above.

Taking the sample

1. Replace the representative tube with a new, unexposed sorbent tube. Make sure it sits tightly in the rubber sleeve.
2. Slide the protective tube cover over the tube and screw it onto the holder until it is secure.
3. Place the tube where your method requires. For personal sampling, clip the holder to the worker's clothing in the breathing zone and the pump to the worker's belt (Figure 4 (p. 10)).
4. Press the on/off button to start sampling. Record the start time and the other details your method asks for.
5. Sample for the time your method specifies, checking the LED now and then for the pump and battery status.
6. At the end of the sampling period, stop the pump and record the stop time and the other details.
7. Cap the tube and send it to the laboratory, together with the blanks and the sampling records.
8. Check the flow after sampling (see Checking the flow after sampling (p. 10)).

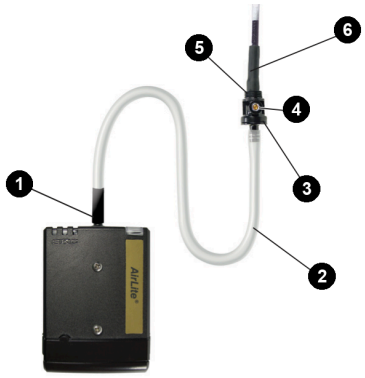


Figure 7. All-in-One adjustable tube holder on the pump.
1 Pump inlet · **2** Tubing · **3** Built-in CPC · **4** Flow adjust screw (needle valve) · **5** Threaded fitting · **6** Rubber sleeve

Low flow sampling with several tubes

With a Constant Pressure Controller (CPC) and a Dual, Tri or Quad Adjustable Low Flow Tube Holder, one pump draws air through up to four sorbent tubes at once, each at its own flow rate if you wish. The pump runs at a higher flow; a brass screw under each port sets the flow through that tube. For the CPC and the holders themselves, see their own operating instructions.

⚠ WARNING

The AirLite is not intrinsically safe. In a hazardous or potentially explosive location it can ignite the atmosphere and cause a fire or an explosion. Never operate the pump in such a location.

The adjustable low flow tube holder

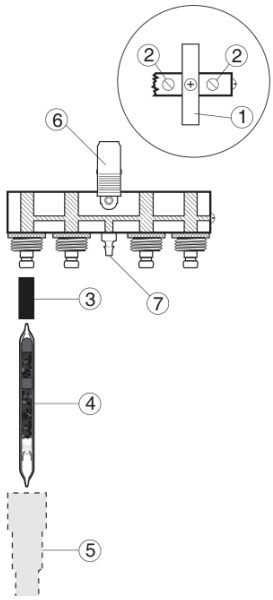


Figure 8. Quad Adjustable Low Flow Tube Holder; inset: flow adjust screws seen from above.
1 Anti-tamper cover · **2** Flow adjust screws · **3** Rubber sleeve · **4** Sorbent sample tube · **5** Protective cover · **6** Clothing clip · **7** Holder outlet

- You need the CPC (Cat. No. 224-26-CPC) and a Dual, Tri or Quad holder (see Low flow accessories (p. 21)).
- Fit new batteries, and let the pump adjust to the temperature if it has come from a much colder or warmer place.
- Set the flow through the pump first, then the flow through each tube.
- Verify the flow before and after each sample, as described below.
- Protect the pump from the weather when you sample outdoors.

Note
The CPC draws air through two small inlet ports in its underside. In dusty surroundings they can clog, which raises the back pressure. Inspect them from time to time; clear them with a small pick and blow the loosened particles away with a puff of air.

Setting the pump flow

1. Fit new batteries. Switch the pump on and let it run for 5 minutes before you verify the flow. Leave it running.
2. Prepare the flowmeter as its own instructions describe, and connect its suction port to the pump inlet with flexible tubing.
3. Add up the flow rates you want through the tubes. No tube may take more than 500 mL/min.
   - Sum up to 1000 mL/min: the pump flow is **1.5 L/min**.
   - Sum above 1000 mL/min: the pump flow is the sum plus 15 %. Example: three tubes at 500 mL/min each give 1500 mL/min; 15 % of that is 225 mL/min, so set the pump to 1500 + 225 = **1725 mL/min**.
4. With a small screwdriver, turn the flow adjustment screw on top of the pump — clockwise for more flow, anticlockwise for less — until the flowmeter shows the pump flow from step 3.
5. Remove the tubing from the pump inlet and from the flowmeter's suction port.

Note
Some sorbent tubes have a higher resistance than average. Through such tubes, 500 mL/min may not be reached.

Setting the flow through each tube

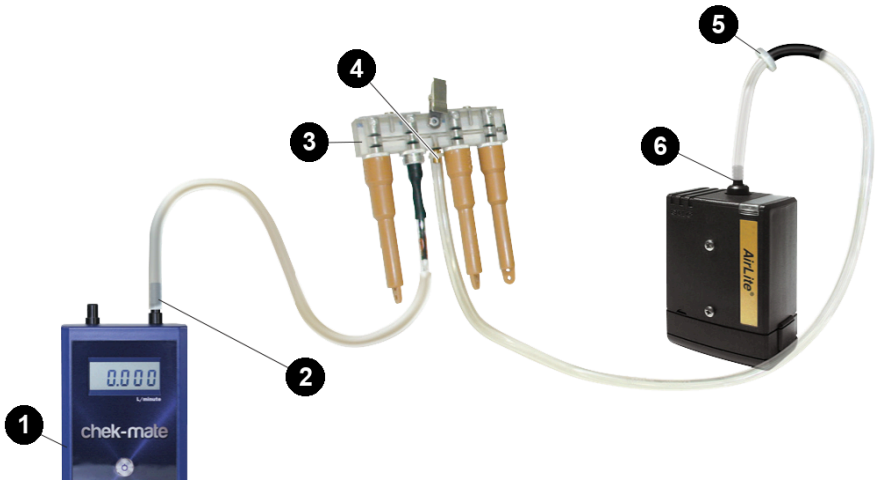


Figure 9. Flow rate verification train with the Quad holder: CPC on the pump inlet, holder on the CPC, flowmeter on the tube being set. **1** Flowmeter (chek-mate shown) · **2** Suction port · **3** Quad tube holder · **4** Holder outlet · **5** CPC inlet, marked “To Sample” · **6** Pump inlet

1. Connect the tubing on the CPC outlet — the side of the CPC without a label — to the pump inlet. Connect the holder to the CPC inlet marked “To Sample” (Figure 9).
2. Break both tips off the representative sorbent tubes and push them into the rubber sleeves of the holder, with the arrow on each tube pointing towards the pump. Seal every unused port with an unopened tube.
3. Label all representative tubes and their ports.
4. Connect the flowmeter's suction port to the open end of the first representative tube with flexible tubing.
5. Leave the pump flow as it is. On a Tri or Quad holder, first turn the anti-tamper cover aside to expose the flow adjust screws (Figures 8 and 11). With a small screwdriver, loosen the brass flow adjust screw directly beneath the port of this tube and turn it — anticlockwise for more flow, clockwise for less — until the flowmeter shows the flow rate your method specifies.
6. Repeat steps 4 and 5 for each of the other representative tubes. Changing the flow through one tube does not change the flow through the others.
7. When every tube is set, check the flow through each one again before you remove the representative tubes. Any correction should be small. Record the pre-sample flow rate of each tube.

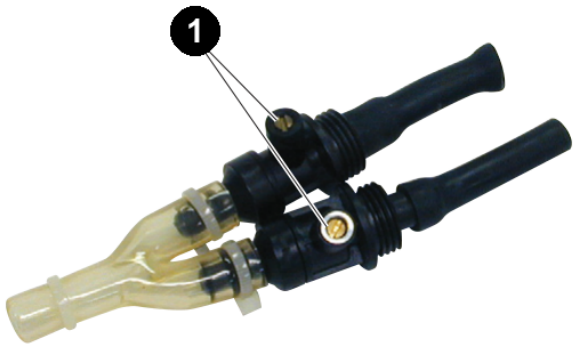


Figure 10. Flow adjust screws (1) on the holder. Turn the screw beneath a port to set the flow through that tube.

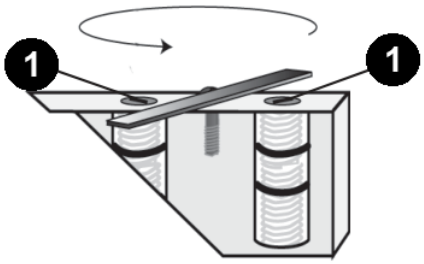


Figure 11. Cut-away of a Tri or Quad holder: turn the anti-tamper cover aside to reach the flow adjust screws (1).

Taking the samples

1. Replace the representative tubes with new, unexposed sorbent tubes.
2. Slide a protective tube cover over each tube and screw it onto the holder until it is secure.
3. Place the holder where your method requires. For personal sampling, clip the holder to the worker's clothing in the breathing zone and the pump to the worker's belt (Figure 4 (p. 10)).
4. Press the on/off button to start sampling. Record the start time and the other details your method asks for.
5. Sample for the time your method specifies, checking the LED now and then for the pump and battery status.
6. At the end of the sampling period, press the on/off button to stop the pump and record the stop time.
7. Cap the tubes and send them to the laboratory, together with the blanks and the sampling records.
8. Check the flow after sampling (see Checking the flow after sampling (p. 10)).

CHAPTER 5

Maintenance

The AirLite needs little care from you: fresh batteries, clean CPC inlets and dry storage without batteries. Repairs to the pumping mechanism are service work.

What you do yourself

Task	How
Replace the batteries	Before each sample, and when the LED shows double flashes. See Fitting or replacing the batteries (p. 8).
Clean the CPC inlets	Inspect the two small holes in the underside of the CPC — built into the All-in-One holder, or the separate CPC for multi-tube holders — and clear them with a small pick and a puff of air. Check more often after sampling in dusty surroundings.
Store the pump	Take the batteries out if the pump will not be used for a long time, so that leaking cells cannot corrode the contacts. Store at −20 to 45 °C.

Service work

The pumping mechanism — the stack of valve plates, diaphragm, pump body and motor — is serviced with the spare parts listed in Spare parts (p. 22). Contact Analyt-MTC before you open the pump; the document “SKC AirLite Sample Pump — Replacing the Stack” (AMTC-IN-0035) describes how to replace it. Pumps under warranty are returned to Analyt-MTC for service (see Service, warranty and contacts (p. 24)).

CHAPTER 6

Troubleshooting

The pump holds the set flow while the resistance of the sample medium changes. When the resistance becomes too high for it to compensate, it stops and tries to restart by itself. The LED shows what is happening.

Flow fault

1. If the pump cannot compensate for the back pressure for more than 10 seconds, it goes into flow fault: the motor stops and the LED flashes fast.
2. After 10 seconds the pump restarts by itself. If the back pressure is still too high 10 seconds later, it tries again — every 10 seconds, five times in all.
3. If the back pressure drops during these attempts, the pump carries on sampling normally.
4. If all five attempts fail, the pump shuts down and the LED flashes four times every 6 seconds.

> **Note**
> The count of five restart attempts starts afresh only after the pump has run without a fault for at least 20 seconds.

Problems and remedies

Problem	Remedy
The LED flashes fast, or four times every 6 seconds (flow fault).	The back pressure is too high. Check for kinked or blocked tubing and for an overloaded or blocked sample medium. Compare the medium's resistance with the pump's compensation range (see Back pressure of common filters (p. 19)).
Flow fault soon after an All-in-One holder is attached.	Open the holder's needle valve slightly: turn its flow adjust screw anticlockwise. If the fault persists, clean the two holes in the underside of the built-in CPC (see Low flow sampling with one tube (p. 11)).
Flow fault, or rising back pressure, with a CPC and multi-tube holder.	Clean the two inlet ports in the underside of the CPC (see The adjustable low flow tube holder (p. 14)).
The LED shows double flashes.	About one hour of run time is left. Fit new batteries before the next sample.
The LED flashes once every 8 seconds; the pump has stopped.	The batteries are exhausted. Fit new batteries (see Fitting or replacing the batteries (p. 8)) and note in the sampling records that the sample ended early.
The run time is much shorter than expected.	Use new alkaline cells; NiMH cells give only about half the run time. A filter loading up with dust raises the back pressure and shortens the run time.
A tube does not reach 500 mL/min.	Some tubes have a high resistance; the full 500 mL/min may not be reachable through them.

If none of these remedies helps, contact Analyt-MTC (see Service, warranty and contacts (p. 24)).

CHAPTER 7

Specifications

Flow and performance

Flow range	1000–3000 mL/min 5–500 mL/min with low flow accessories (see Low flow accessories (p. 21))
Flow control	Constant flow within ±5 % of the set-point
Compensation range, for at least 8 hours of operation	1000 mL/min against 30 in. H_2O 2000 mL/min against 20 in. H_2O 3000 mL/min against 10 in. H_2O
Flow fault	Stops after 10 s without compensation; up to 5 automatic restarts at 10 s intervals (see Flow fault (p. 18))
Tubing	1/4 in. inside diameter

Back pressure of common filters

Typical back pressure of sampling media, in in. H_2O. Compare it with the compensation range above to judge whether the pump suits an application.

Filter / pore size	1.0 L/min	1.5 L/min	2.0 L/min	2.5 L/min	3.0 L/min
25 mm MCE, 0.8 µm	7.2	9.5	12.8	16.1	19.7
25 mm MCE, 0.45 µm	13.7	20.7	28.0	35.1	42.7
37 mm MCE, 0.8 µm	2.6	3.9	5.5	6.9	8.4
37 mm PVC, 5.0 µm	1.0	1.6	2.2	2.9	3.6

Power

Batteries	Three standard AA alkaline cells Rechargeable AA NiMH cells (1.2 V) can be used, with about half the run time
Run time	Depends on the batteries and the sample medium; see Run time (p. 20)

Operating conditions

Temperature	Operating 32–104 °F (0–40 °C) · storage −4 to 113 °F (−20 to 45 °C)
Compensated temperature range	41–122 °F (5–50 °C)
Humidity	Operating 0–95 % RH, non-condensing

Mechanical and certification

Dimensions	4.6 × 3 × 1.75 in (11.7 × 7.6 × 4.4 cm)
Weight	12 oz (340 g), with batteries
Case	Plastic, RFI/EMI-shielded; belt clip
Certification	CE marked
Intrinsic safety	None. Do not operate in hazardous or potentially explosive locations.

Run time

Typical run times in hours with a new pump and new AA alkaline cells, by sample medium and battery brand. Pumps and batteries vary; NiMH cells give about half these times.

Mixed cellulose ester (MCE) filter, 0.8 µm pore size

Filter diameter	37 mm	37 mm	37 mm	25 mm	25 mm
Flow rate	**1 L/min**	**2 L/min**	**2.5 L/min**	**1 L/min**	**2 L/min**
Duracell Standard	23.5	14.5	13.5	18.5	10.5
Rayovac Maximum	20.0	16.5	14.0	16.5	11.0
Wal-Mart EverActive	24.0	16.0	10.5	18.0	10.5
Eveready Alkaline	20.0	14.0	13.0	17.0	not tested

Polyvinyl chloride (PVC) filter, 5.0 µm pore size

Filter diameter	37 mm	37 mm	37 mm	25 mm	25 mm
Flow rate	**1 L/min**	**2 L/min**	**2.5 L/min**	**1 L/min**	**2 L/min**
Duracell Standard	23.5	15.5	17.0	23.0	10.5
Rayovac Maximum	29.5	16.5	14.0	18.5	13.0
Wal-Mart EverActive	24.5	20.5	15.5	20.5	11.5

Glass fibre filter

Filter diameter	37 mm	37 mm	37 mm	37 mm	25 mm	25 mm	25 mm	25 mm
Flow rate, L/min	**1**	**2**	**2.5**	**3**	**1**	**2**	**2.5**	**3**
Energizer	29.5	18.0	21.0	18.5	29.0	18.5	18.5	12.0
Rayovac Maximum	26.5	23.5	23.0	14.0	9.5	19.5	14.5	13.5
Wal-Mart EverActive	33.5	24.5	17.5	19.0	26.0	20.0	14.5	14.0

CHAPTER 8

Ordering information

Order from Analyt-MTC with the order codes.

Pump and kits

Description	Pumps	Order code
AirLite sample pump only	1	110-100
AirLite sample pump only, with timer	1	110-100-T
Basic kit	1	110-100K
Basic kit (5-pack high flow pump kit)	5	110-100K5
5-pack high flow pump kit, with timer	5	110-100-TK5
5-pack high/low pump kit: 5 pumps, filter cassette holders, All-in-One adjustable tube holders, Type A protective tube covers, hard-sided case	5	Ask Analyt-MTC
5-pack high/low pump kit, with timer: contents as above	5	Ask Analyt-MTC
Dust sampling kit: IOM sampler, 5 cassettes, foams, Calidaptor	1	110-100KP
Dust sampling kit: 5 IOM samplers, 15 cassettes, foams, Calidaptor	5	110-100K5P
Vapour sampling kit: tube holder, constant pressure controller, tube cover, tube breaker	1	110-100KV
Vapour sampling kit: 5 tube holders, 5 controllers, 5 tube covers, tube breaker	5	110-100K5V
Combined kit: dust and vapour accessories as above	1	110-100KC
Combined kit: dust and vapour accessories as above, for 5 pumps	5	110-100K5C

Pump: 3 AA alkaline batteries, screwdriver set, manual. Kits add tubing for each pump, a carry case and Step-by-Step Guides.

Flowmeter

Description	Order code
Medium Flow chek-mate Flowmeter, 0.50–5 L/min, with 9 V alkaline battery. With a calibration certificate traceable to NIST, UK or ISO standards:	NIST: ask Analyt-MTC UK: 375-0550 ISO: 375-0550S

Low flow accessories

Description	Order code
Low Flow Adapter Kit: All-in-One adjustable tube holder and Type A protective tube cover, for one tube	110-500
Constant Pressure Controller (CPC), required for the adjustable low flow tube holders below	224-26-CPC
Dual Adjustable Low Flow Tube Holder	224-26-02
Tri Adjustable Low Flow Tube Holder	224-26-03
Quad Adjustable Low Flow Tube Holder	224-26-04
PROTECTIVE COVERS FOR SORBENT TUBES	
Type A, 6 mm outside diameter (OD) × 70 mm long (included in the Low Flow Adapter Kit)	224-29A
Type B, 8 mm OD × 110 mm long	224-29B

Description	Order code
Type C, 10 mm OD × 150 mm long	224-29C
Type D, 10 mm OD × 220 mm long	224-29D

Other accessories

Description	Order code
Screwdriver set (included with the pump)	Ask Analyt-MTC
Protective pouch, black nylon, with belt loop	224-902
Waist strap	224-12
Carry case for 1 pump	224-98
Carry case for 5 pumps	224-97B
Hard-sided watertight case for 1 pump	224-901
Filter cassette holder	225-1

Spare parts

No.	Description	Order code
1	Stack screws	P51891
2	Inlet tubing connector	P20106
3	Pulsation dampener	P2010802
4	Stack plate	N/A
5	Valve plates (top and bottom)	P213201
6	Diaphragm/yoke assembly	P22417HC
7	Pump body	P22417G
8	Motor/eccentric	P51890
9	Pump base	P20182
–	Battery case cover (not shown)	P20184

Replacing these parts is service work; see Service work (p. 17).

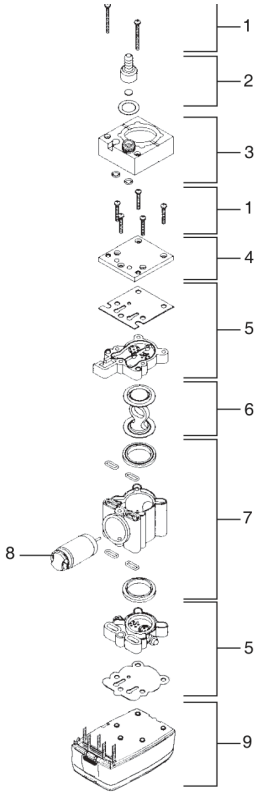


Figure 12. Exploded view of the pumping mechanism; numbers as in the table.

CHAPTER 9

Service, warranty and contacts

Analyt-MTC is your contact for everything concerning the AirLite: technical questions, accessories and spare parts, repairs and warranty claims. Any work beyond the tasks in Maintenance (p. 17) is service work; contact Analyt-MTC.

Contact

ANALYT-MTC Messtechnik GmbH

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French Subsidiary

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www.analyt-mtc.com

Before you contact Analyt-MTC

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

- the catalogue number of the pump and any serial number on its label;
- the LED pattern you saw, and when it appeared;
- the sample medium, flow rate and batteries you used.

Returning a pump

Before you send a pump for repair or under warranty, ask Analyt-MTC how to return it and what to include.

Warranty

The pump is covered by the warranty terms of Analyt-MTC. Make warranty claims to Analyt-MTC. The warranty lapses if the warnings and cautions in this manual are not followed.

Disposal

Do not dispose of the pump with household waste. Dispose of it as electrical and electronic equipment under local regulations (WEEE). Remove batteries first where fitted and dispose of them separately.

ANALYT-MTC Messtechnik GmbH

Sales, service and calibration

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