ANALYT MESSTECHNIK



INSTRUCTIONS FOR USE

SKC AirLite Sample Pump

Step-by-step removal of the old stack, transfer of the motor, leak check and reassembly when you fit a new stack, Cat. No. P20182A, in the SKC AirLite sample pump.

AMTC-IN-0035

About this document

These instructions show how to replace the stack of the SKC AirLite sample pump with a new one, Cat. No. P20182A. You take the old stack out of the case, move the motor across into the new stack, leak-check it, and put the pump back together.

Read Safety (p. 4) first and check What you need (p. 5). Then work through Procedure (p. 6) in order: it removes the old stack and fits the new one. Keep the screws, the belt clip, the battery case cover, the batteries, the control board and the motor: they all go back into the pump.

For operating the pump, setting the flow rate and calibration, see the operating manual of the pump.

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

How these instructions mark information

Note
Information that helps understanding; never a hazard.

Document information

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Manufacturer	SKC Inc.

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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 the notes in this chapter before you replace the stack. Each note appears again at the step it belongs to.

Intended use

These instructions cover one repair: replacing the stack of the SKC AirLite sample pump with the replacement stack Cat. No. P20182A. Sampling with the pump is described in the operating manual of the pump.

Notes on the repair

Note
Handle the wiring gently: do not pull on the wires or force the connectors.

Note
If the stack leaks, the water column drops during the leak check. Do not fit a leaking stack: find the leak and clear it, then repeat the leak check before you fit the stack.

CHAPTER 2

Before use

What you need

- the new stack, Cat. No. P20182A;
- a screwdriver for the case screws;
- a small hex key (Allen key) for the setscrews;
- a pair of pliers to pull the motor;
- for the leak check: a water column (water manometer);
- a plug or pin with a diameter of 0.187 in for the exhaust port.

CHAPTER 3

Procedure

Take the stack out of the case

1. Undo the two screws that hold the belt clip and take the belt clip off (Figure 3-1 (p. 6)).
2. Remove the single retaining screw on the back of the pump case.
3. Press gently down on the inlet tubing barb.
4. Slide the stack, together with the control board, out through the bottom of the case (Figure 3-2 (p. 6)).





Figure 3-1. (a) Undoing a belt clip screw. (b) Belt clip removed.



Figure 3-2. Stack sliding out.

Free the motor

The motor stays with your pump: it moves from the old stack into the new one.

> **Note**
> **Loosen, do not remove, the setscrews.**
> Leave both setscrews in the pump housing.

5. With a small hex key, loosen the setscrew on each side of the pump housing (Figure 3-3 (p. 6)).
6. Loosen the screw of the battery case cover.
7. Take the cover off the base plate.
8. Take the batteries out (Figure 3-4 (p. 6)).



Figure 3-3. The stack out of the case.





Figure 3-4. (a) Loosening the screw of the battery cover. (b) Taking out the batteries.

9. Unplug the motor wire harness and the battery wire harness from their connectors on the control board (Figure 3-5 (p. 7)), handling the wires gently.
10. Lift the control board off the base plate.
11. Grip the motor with the pliers and pull it out of the pump housing, gently rocking it back and forth as you pull (Figure 3-6 (p. 7)).

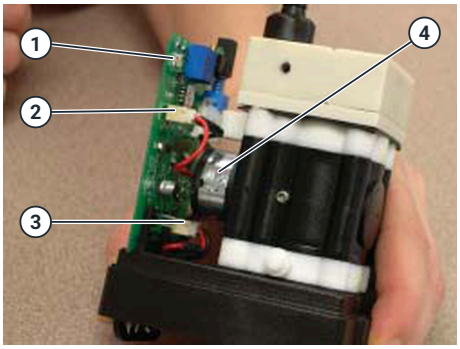


Figure 3-5. (1) Control board. (2) Motor wire harness. (3) Battery wire harness. (4) Motor.

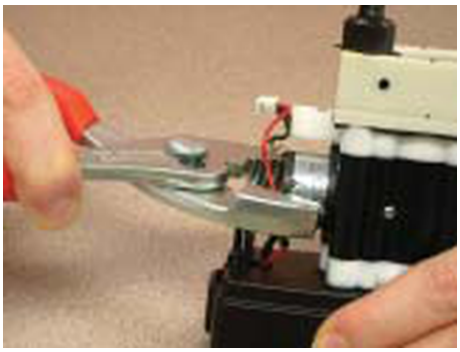


Figure 3-6. Pulling the motor out of the pump housing with pliers.

Fitting the new stack

Fit the motor into the new stack

As the motor goes into the pump housing, its bearing and eccentric must meet the slot in the yoke in the middle. An eccentric off to one side binds the yoke (Figure 3-7 (p. 8)).

1. Take the button plug out of the side of the pump housing of the new stack, Cat. No. P20182A. The opening lets you see the eccentric and the yoke.
2. By hand, push the motor into the pump housing, gently, and watch the bearing and eccentric through the opening as they meet the slot in the yoke.
3. If the eccentric is off-centre, nudge the yoke to one side or the other with a finger or a pen until the eccentric sits in the middle of the slot.
4. With the eccentric centred, press the motor gently on into the pump housing until it goes no further.
5. With a small hex key, tighten the setscrew on each side of the pump housing.



(a) Correct: eccentric centred in the yoke



(b) Wrong: eccentric off-centre, yoke binding

Figure 3-7. The eccentric seen through the opening of the button plug.

Reconnect the control board

> **Note**
> Handle the wiring gently: do not pull on the wires or force the connectors.

6. Plug the motor wire harness and the battery wire harness back into their own connectors on the control board. Figure 3-8 (p. 8) shows the connectors.
7. Set the control board back in its groove on the base plate.

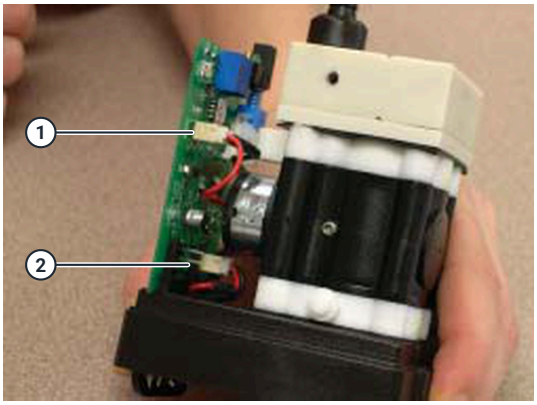


Figure 3-8. (1) Motor wire connector. (2) Battery wire connector, on the control board.

Leak-check the stack

Check the stack for leaks now, before it goes back into the case.

8. Connect the pump inlet to a water column.
9. Block the exhaust port, next to the inlet tubing barb, with a plug or pin with a diameter of 0.187 in.

> **Note**
> If the stack leaks, the water column drops during the leak check. Do not fit a leaking stack: find the leak and clear it, then repeat the leak check before you fit the stack.

10. Apply a pressure of 15 in water and watch the water column. If it holds its level, the stack is tight. If it drops, the stack leaks.

Test run

11. Put the batteries into the battery compartment.
12. Refit the battery case cover and tighten its screw.
13. Run the pump to check that the motor and the stack are installed properly: the yoke must not bind the eccentric.
14. If the pump runs properly, push the button plug back into the side of the pump housing.

Close the case

> **Note**
> If the case does not slide on easily, do not force it. Pull it off, check that the control board sits in its groove on the base plate, and repeat step 12.

15. Line up the inlet tubing barb with the hole in the top of the pump case and slide the pump gently up into the case, with the control board lined up with the ribs inside the case.
16. When the side tabs of the case line up with the channels on the sides of the base plate, press the case down until the tabs click into place.
17. Refit the single retaining screw on the back of the case.
18. Line up the belt clip and fit it with its two screws.

CHAPTER 4

Ordering information

Order from Analyt-MTC with the order code.

The replacement stack is listed below; contact details are in Service and contacts (p. 11).

Item	Order code
Replacement stack for the SKC AirLite pump, without motor	P20182A

CHAPTER 5

Service and contacts

Contact and support

ANALYT-MTC Messtechnik GmbH

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www.analyt-mtc.com

Before you call

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

- the serial number of the pump;
- the step you have reached in these instructions;
- what you see: a leak in the leak check, a binding yoke, or a case that does not close.

Contact Analyt-MTC to order a replacement stack, Cat. No. P20182A, and for service, calibration, repair and technical support for your SKC AirLite pump; warranty matters follow Analyt-MTC's terms of sale. Analyt-MTC's contact details are above and on the back cover.

Disposal

Dispose of the old stack under local regulations; separate metal, glass and plastic parts for recycling where possible.

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