AirChek® XR5000

Operating Instructions
操作手册

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注意：该操作手册可能没有显示所有与该仪器及其使用有关的安全方面的问题。使用者有责任明确并按照相应的安全和卫生实际情况以及相应的规章制度使用该仪器。这个说明书中包括的信息不能直接理解为法律意见，或者作为最终的根据或规章制度

AirChek XR5000 Quick Guide
AirChek XR5000 快速操作指南

Keypad Basics
键盘

✷ (star key) Scrolls through parameters in user setup functions.
✷（开始键） 在用户设定功能滚动显示参数
▲▼ (up/down arrow keys) Increase or decrease flow rate, timed run, and run delay time.
▲▼ (上/下箭头键) 增加或减少流量，定时运行和运行延迟时间

Key Sequences
键序列

▼ ✷ 分别按每一个键 Press keys individually.
[▲▼] 同时按键。在运行、保持和退出用户设定功能之间转换
Press keys simultaneously. Toggles between Run and Hold and exits user setup functions.
✷▲▼✷ Security code to access user setup functions. With pump in a non-running state (no flashing blue LED), press keys in sequence.
进入用户设定功能的安全代码。在泵非运行状态（蓝色LED灯不闪烁），依次按键。

Operation
操作

•Pump On **Press and hold** ✷.
开泵 **持续按**✷键开泵
•Pump Off Press and hold ✷ through countdown. Auto-off will shut down pump after 5 minutes without activity.
关泵 **持续按**✷键**并保持倒数计时。如果5min内不进行任何操作泵将自动关闭**
•Mode Change Press [▲▼] to toggle between Run and Hold.
改变模式 **按[▲▼]**在运行和保持间转换
•Keypad Lock Press ▼ **5** times **quickly** to activate. Press ▼ **5** times **quickly** to deactivate.
锁键 **快速按下▼ 5次**激活键.快速按下▼ 键**5**次锁键
•Continuous Run With pump in a non-running state (no flashing blue LED), press [▲▼] to run pump. Press [▲▼] to Hold pump when completed.
连续运行 **在泵处于非运行状态**（蓝色LED灯不闪烁），**按[▲▼]**运行泵，按**[▲▼]**保持泵运行直到运行完成。

Accessing User Setup Functions
进入用户设定功能

- ***Entering User Setup Functions***

With pump in a non-running state (no flashing blue LED), press ✷▲▼✷.

- ***Exiting User Setup Functions***

Press [▲▼]. Pump is ready. Press [▲▼] to run the pump or to start a run delay.

进入用户设定功能
在泵处于非运行状态（蓝色LED灯不闪烁），**按**✷▲▼✷。
退出用户设定功能
按**[▲▼]**.，泵准备就绪。按**[▲▼]**运行泵或开始运行延迟

User Setup Functions

用户设定功能

To navigate while in user setup functions, press ✹ until the desired function displays.
在用户设定功能，持续按✹键直到显示出要设定的功能

Clear Accumulated Run Time 清除累积运行时间 *Function only available when accumulated run time exists.* 只有当累积运行时间存在时该功能才可用	CLr and flashing Hold **CLr** 和闪烁的 **Hold**。	Press [▲▼]. 按 [▲▼].	Clears run and run time and exits functions. Press [▲▼] to run pump. 清除运行和运行时间并退出功能。按 [▲▼] 运行泵。
Adjust Flow Rate* 调节流量	"---" and flashing ADJ Flow "---" 和闪烁的 ADJ Flow	Press ▲ or ▼. Press [▲▼] to exit functions. 按▲ 或▼。 按[▲▼]退出该功能	Flow increases/decreases. Press [▲▼] to run pump. 增加/减少流量。按[▲▼] 运行泵
Set Timed Run† 设定定时运行	Flashing Set Timed Run and min 闪烁的 **Set Timed Run** 和 **min**	Press ▲ or ▼. Press [▲▼] to exit functions. 按▲ 或 ▼.。 按 [▲▼] 退出该功能	Minutes increase/decrease. Press [▲▼] to run pump. 增加/减少时间。按[▲▼] 运行泵
Set Run Delay† 设定运行延迟	Flashing Set Run Delay and min 闪烁的 **Set Run Delay** 和**min**	Press ▲ or ▼. Press [▲▼] to exit functions. 按▲ 或 ▼。 按 [▲▼] 退出该功能	Minutes increase/decrease. Press [▲▼] to start run delay. Blue LED flashes. Pump starts after delay elapses. 增加/减少时间。按[▲▼] 开始运行延迟。当延迟结束后泵开始运行

* *Changing flow rate in user setup functions will* ***not*** *clear accumulated run time.*
在用户设定功能区改变流量不会清除累积运行时间

†*Changing timed run and/or run delay settings in user setup functions will clear accumulated run time.*
在用户设定功能区改变定时运行和或运行延迟将清除累积运行时间

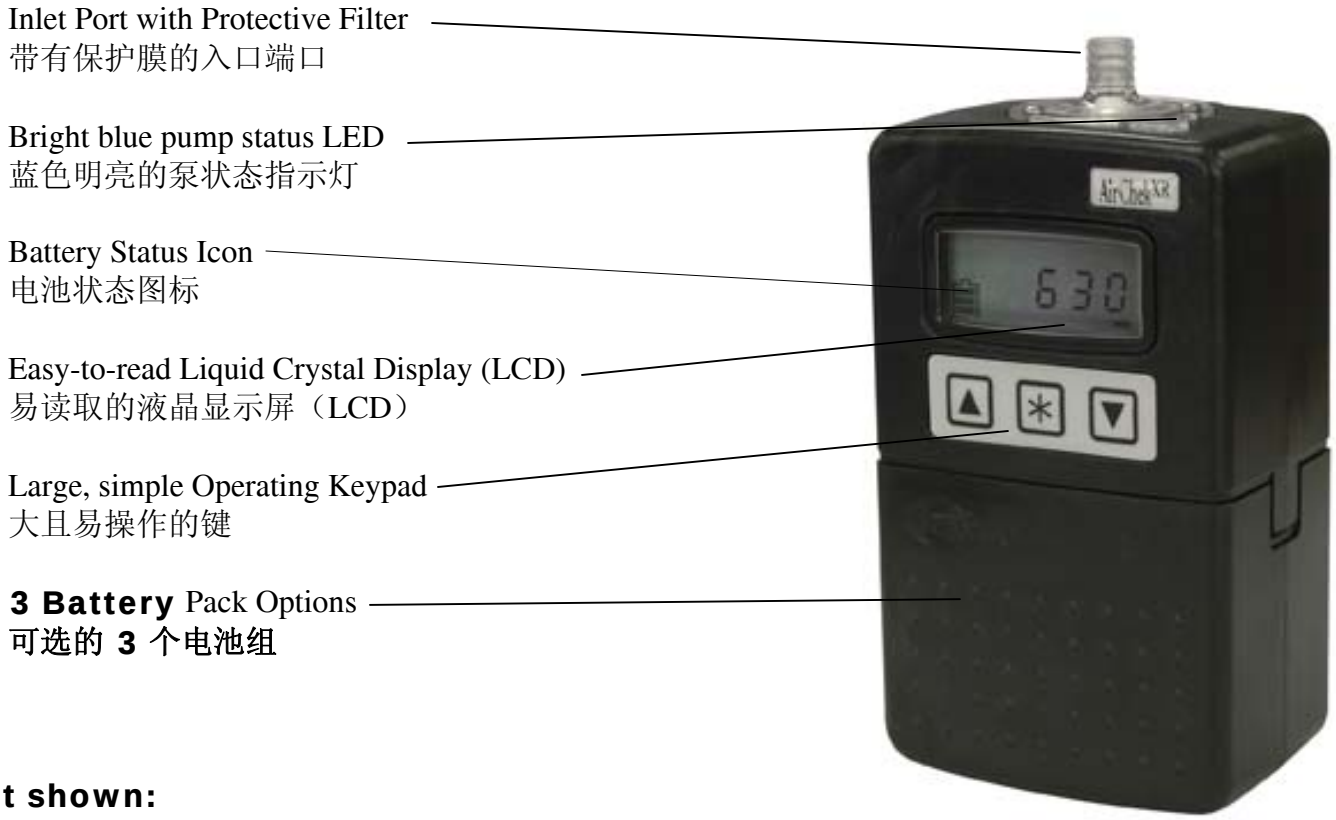
www.skcinc.com

Description
描述

SKC AirChek XR5000 Sample Pumps are designed to offer users enhanced battery power and easy operation in a lightweight pump that provides accurate airflows from 5 to 5000 ml/min.
SKC AirChek XR5000采样泵是为用户设计的一种具有强大的电池能量、轻巧并且容易操作的采样泵，它能在5-5000ml/min的范围内提供精确流量

- Three battery options provide flexibility and economy for different applications including long run times.
  三个可选电池为包括长时间运行等不同的应用方式提供更多的灵活性和经济性
- The large three-button keypad and straightforward user setup functions offer user-friendly conveniences.
  大的三个按钮的键区和简单明了的用户设定功能提供了友好的使用便利。

AirChek XR5000 pumps feature a patented* internal flow sensor that measures flow directly and acts as a secondary standard, constantly maintaining the set flow rate. A built-in sensor compensates for changes in temperature that occur after calibration.
AirChek XR5000 泵提供了专利设计的内置流量传感器，从而能够直接测定流量并同时能作为二级标准，稳定保持设定的流量。内置的传感器能补偿校准后由于温度影响而发生的改变
** U.S. Patent No. 5,892,160*



Not shown:
Beltclip (back)

Battery
Charging Jack(back)

AirChek XR5000 Air Sampling Pump
AirChek XR5000 空气采样泵

Performance Profile
性能概要

Flow Range: 1000 to 5000 ml/min (5 to 500 ml/min requires optional low flow adapter kit)
流量范围：1000-5000ml/min（5-500ml/min需要选择低流量适配头）
Compensation Range: 5000 ml/min at 10 inches water back pressure
4000 ml/min at 20 inches water back pressure
2000 ml/min at 50 inches water back pressure
补偿范围：10 英寸水背压时 5000 ml/min
20 英寸水背压时 4000 ml/min
50 英寸水背压时 2000 ml/min

Typical Back Pressure of Sampling Media (inches water)
采样介质的典型背压（英寸水）

Flow Rate (L/min) **流量 (L/min)**	**1.0** **1.0**	**1.5** **1.5**	**2.0** **2.0**	**2.5** **2.5**	**3.0** **3.0**	**3.5** **3.5**	**4.0** **4.0**	**5.0** **5.0**
Filter/Pore Size (µm) 滤膜/孔径（**µm**）								
25-mm MCE/0.8 **25mm MCE/0.8**	6	9	12	15	18	21	25	31
25-mm MCE/0.45 **25-mm MCE/0.45**	14	22	28	35	40	44	50	63
37-mm MCE/0.8 **37-mm MCE/0.8**	2	3	4	5	6	7	9	11
37-mm PVC/5.0 **37-mm PVC/5.0**	1	1	2	2	2.5	3	3	4
37-mm, polycarbonate/0.45 **37-mm, 聚碳酸酯/0.45**	4	6	8	10	12	15	17	21
25-mm MCE/0.45 microvacuum **25-mm MCE/0.45 高真空**	21	31	40	48	59	69	79	100
37-mm PTFE/1.0 **37-mm 聚四氟乙烯/1.0**	7.5	11	14.5	19	22	26	30	40

Compare the information in this table to pump compensation range to determine appropriate applications.
比较表中对泵补偿范围的信息以确定正确的使用

Flow Compensation
流量补偿
System: Patented* isothermal closed loop flow sensor
系统： 专利的等温闭合循环流量传感器
Accuracies: **Timing:** 1 min/month @ 25° C
Flow Rate: ± 5% of set-point after calibration to desired flow
精确性： 定时： 25° C 时 1分钟/月
流量：调整到相应流量后变化范围 ± 5%

Battery Charge
电池充电

Level Indicator: Icon displays on LCD at full, mid, low charge, imminent low battery fault, and low battery fault.

电量指示：以满、中、低电量、即将低流量错误和低流量错误等图标显示在液晶屏上

Temperature Range: **Operating:** 32 to 113 F (0 to 45° C)
Charging: 32 to 113 F (0 to 45° C)
Storage: -4 to 113 F (-20 to 45° C)

温度范围：操作温度**:** 32 -113 ℉ (0 -45° C)
充电温度: 32 - 113 ℉ (0-45° C)
储存温度: -4-113℉ (-20-45° C)

Typical Run Time†:
典型运行时间：

	40 小时	22 小时
	20 小时	11 小时
	18 小时	8 小时

	40 hrs	22 hrs
	20 hrs	11 hrs
	18 hrs	8 hrs

† Using a 37-mm 0.8-µm MCE filter
使用37-mm 0.8-µm MCE 滤膜

Timer Display Range: 1 to 9999 minutes (6.8 days). If run time exceeds 6.8 days, timer display rolls over.

定时显示范围：1-9999分钟（6.8天）。如果运行时间超过 6.8 天，定时器将滚动显示。

Flow Fault: If pump is unable to compensate for > 15 seconds due to excessive back pressure, the pump stops and holds run time display. Auto-restart is attempted every 15 seconds up to 5 times.

流量错误：如果由于超过泵压而泵又不能补偿大于15秒，泵就停止并保持运行时间显示。每隔15秒尝试一次自动重运行，共尝试5次。

Low Battery Fault: 15 seconds to sleep

低电量错误： 15秒后进入休眠状态

Auto-off: 5 minutes of inactivity

自动关泵：5分钟内不进行任何操作

** U.S. Patent No. 5,892,160*

Performance Profile

性能概要

Battery Pack: High-power Li-Ion (4 cell), rechargeable, 7.4 V, 4.4 Ah capacity (Cat. No. P85004 for UL Listed pump)
or
Standard Li-Ion (2 cell), rechargeable, 7.4 V, 2.2 Ah capacity (Cat. No. P85002 for UL Listed pump)
or
Alkaline (6 cells), disposable, size AA, 1.5 V (nominal), Cat. No. P75715 - not UL Listed for intrinsic safety

电池组：可充电高效锂电池（4芯），7.4V，4.4Ah容量（货号. P85004），或可充电标准锂电池（2芯）7.4V，2.2Ah容量（货号. P85002）或一次性使用的碱性电池（6芯），2A规格，1.5V（额定），货号P75715-对于本质安全性未在UL表中列出。

Battery Recharge Time: **Standard Li-Ion (2 cell):** approximately 4 hrs
High-power Li-Ion (4-cell): approximately 8 hrs

电池再充电时间：标准锂电池（2芯）：约4小时
高效锂电池（4芯）：约8小时

Size: **High-power Li-Ion and alkaline models:** 5.6 x 3 x 2.3 in (14 x 8 x 6 cm)
Standard Li-Ion model:4.2 x 2.9 x 2 in (10.6 x 7.4 x 5.1 cm)

规格：高效锂电和碱电池： 5.6 x 3 x 2.3 英寸 (14 x 8 x 6 cm)
标准锂电：4.2 x 2.9 x 2 英寸 (10.6 x 7.4 x 5.1 cm)

Weight: **High-power Li-Ion: .....**21 oz (0.6 kg)
Standard Li-Ion model:....16 oz (0.45 kg)
Alkaline model: 17 oz (0.48 kg)

重量：高效锂电池：0.6 kg
标准锂电池：0.45kg
碱性电池：0.48kg

Case: Anti-static plastic

外壳：无静电塑料

RFI/EMI Shielding: CE marked for RFI/EMI protection

RFI/EMI屏蔽： CE认证的RFI/EMI 保护

Approvals: for use in hazardous locations. Models that are UL Listed for intrinsic safety contain the logo on the label. These models must be used with battery pack Cat. No. P85004 or P85002 to maintain the UL intrinsic safety listing.

认证：用于在危险场所使用。在UL列出的本质安全性的电池在标签上有显示。该模式必须使用P85004或P85002电池组以保持UL列出的本质安全性。

Cautions:

- ***For safe operation in hazardous atmospheres, ensure the pump label contains the logo and the battery pack label contains Cat. No. P85004 or P85002. Use of any other battery pack (including alkaline) voids the UL Listing for intrinsic safety.***

*注意：为了保证在危险的大气环境中安全使用，确保泵标签包含标示，而且电池组标签包含**P85004**或**P85002**。使用其他任何的电池组（包括碱性电池）对于**UL**列出的本质安全性都是无效的*

- ***Use only the charger and battery packs designed for the AirChek XR5000 pump to ensure reliable performance and retain the SKC warranty.***

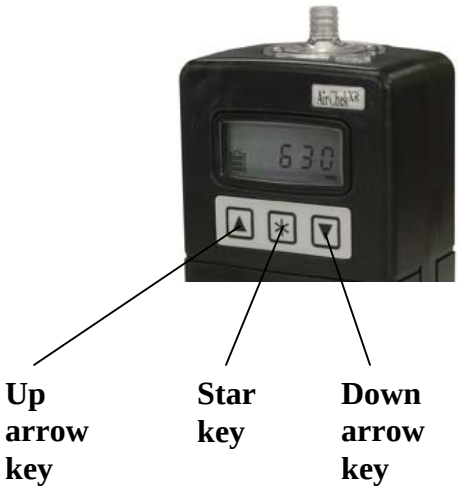
*只使用为**AirChek XR5000**采样泵设计的充电器和电池组以确保可靠的使用性能并能保持**SKC**质量保证*

- ***Use only SKC-approved parts to ensure reliable performance, retain the SKC warranty, and to maintain the UL Listing for intrinsic safety.***

只使用SKC认可的零件以确保可靠性能，保持SKC质量保证，并保持UL所列出的本质安全性能。

Setup
设定

Keypad Basics
The AirChek XR5000 operates by pressing key sequences on the keypad located on the front of the pump case.
键基础
AirChek XR5000通过按位于泵壳前面板键区的键序列进行操作



Keys
键

✹ Scrolls through parameters in user setup functions.
✹ 用于在用户设定功能区滚动显示参数

▲ Increases flow rate, timed run, and run delay time.
▲用于增加流量，定时运行时间和运行延迟时间

▼ Decreases flow rate, timed run, and run delay time.
▼用于降低流量，定时运行时间和运行延迟时间

Key Sequences
键序列

▲✹ Press keys individually.
▲✹分别按键

[▲▼] Press simultaneously to toggle between Hold and Run modes and to exit user setup functions.
[▲▼] 同时按下在保持（Hold）和运行（Run）模式之间转换并退出用户设定功能

✹▲▼✹ Security code. With pump in a non-running state (no flashing blue LED), press to access user setup functions.
✹▲▼✹安全模式。在泵非运行状态（蓝色指示灯不闪烁），顺序按下这四个键进入用户设定功能

Turning the Pump On
开泵

- Press and hold ✹ until display shows “ON”.
  长时间按住✹键直到显示屏显示ON
- Press [▲▼] to run the pump or to place a running pump in Hold. A blue LED on top of the pump indicates pump is running or that there is a run delay programmed into the pump.
  按[▲▼]运行泵或将运行的泵处于保持状态。泵上部的蓝色指示灯表明泵正运行或在泵中设定有运行延迟程序

Turning the Pump Off
关泵

- **Manual Off (Sleep mode):** With pump in a non-running state (no flashing blue LED), press and hold ✹ until a countdown from 3 to 1 appears on the LCD and

pump shuts off. Manual Off will operate even when keypad is locked.

手动关泵（休眠模式）：在泵处于非运行状态下（蓝色指示灯不闪烁），长时间按住✷键直到倒数计数出现在液晶显示屏上，从3到1后泵关闭。即使当键锁定时手动关泵也能操作。

- **Auto Off (Sleep mode):** Turns off a non-running pump (no flashing blue LED) after five minutes of inactivity.

自动关泵（休眠模式）：不运行的泵（蓝色指示灯不闪烁）**5min内不进行任何操作，泵会自动关闭。**

Locking the Keypad
锁定键

Locking: In any mode, press ▼ **5** times **quickly**. A flashing "L" will appear in the lower right corner of the display.

锁定：在任何模式下，快速按下▼键5次，一个闪烁的"L"会出现显示屏的右下角。

Unlocking: Press ▼ **5** times **quickly**. The flashing "L" will disappear from the display. The keypad may be operated normally.

解锁：快速按下▼键5次，闪烁的"L"会从显示屏上消失。键就可以正常操作。

- While the keypad is locked, the ✹ key will still operate to allow manual pump shut off in a non-running state (no flashing blue LED).

  在键锁定期间，✹键仍能操作以允许泵能在非运行状态（蓝色指示灯不闪烁）下人工关闭。
- A locked keypad will remain locked until the user unlocks it. Turning the pump off and on does not affect keypad lock status.

  锁定的键将保持锁定状态直到操作者解开它。开关泵不影响键锁定状态。

Checking Battery Condition
检查电池状态

See page 12.
见12页

Accessing User Setup Functions
进入用户设定功能

Entering Functions:

- With pump in a non-running state (no flashing blue LED), press ✹▲▼✹.

进入功能

在泵非运行状态（蓝色指示灯不闪烁），按✹▲▼✹。

Exiting Functions:

- Press [▲▼] to exit user setup functions. Pump is ready to run.

退出功能

按[▲▼]退出用户设定功能。泵处于准备运行状态

User setup functions cannot be accessed while the keypad is locked.

在键锁定期间不能进入用户设定功能。

Setup
设定

User Setup Functions
用户设定功能

Function Overview
功能总览

User setup functions are listed below in the order in which they display. *Note that the CLr function for clearing accumulated run time is only available when accumulated run time exists.*
用户设定功能在下表中顺序列出。注意用于清除累积运行时间的CLr功能键只在累积运行时间存在时才有效。

	CLr
ADJ Flow 调整流量	ADJ Flow
Set Timed Run 设定定时	Set Timed Run
Set Run Delay 设定运行延迟	Set Run Delay

Clearing Accumulated Run Time
清除累积运行时间

1. With the pump in a non-running state (no flashing blue LED), press ✷▲▼✷.
1、 在泵处于非运行状态下（蓝色显示灯不闪烁），按✷▲▼✷
2. Press [▲▼] at CLr display to clear accumulated run time. Pump is ready to run.
2、在CLr出现时按[▲▼]清除累积运行时间。泵准备好运行。

CLr will not cancel Timed Run or Run Delay time settings (see Canceling a Timed Run and/or Run Delay).
CLr不会取消设定的定时运行或运行延迟时间（见取消定时运行和/或运行延迟）

•Changing the timed run and/or run delay settings in user setup functions will automatically clear accumulated run time.
在用户设定功能改变定时运行和/或运行延迟设定将自动清除累积运行时间。

•Changing the flow rate in user setup functions will ***not*** clear accumulated run time.
在用户设定功能改变流量不会清除累积运行时间。

Setting Flow Rate
设定流量

1. With pump in a non-running state (no flashing blue LED), press ✹▲▼✹.

1、在泵处于非运行状态下（蓝色显示灯不闪烁），按✹▲▼✹键

2. Connect pump inlet to a calibrator.

2、将泵进口与流量校准器连接

3. Press ✹ until ADJ and Flow flash on display.

3、按✹键键直到ADJ和Flow闪烁出现在显示屏上。

4. Press ▲ to increase or ▼ to decrease flow. Dashed lines will move up and down on the LCD to indicate direction of adjustment. Flow rate will not display on the pump LCD. Observe the calibrator for flow reading.

4、 按▲键增加或▼键降低流量。虚线将会在液晶显示屏上下移动以表示调整的方向。流量不显示在泵液晶显示器上。观察流量校准器上的流量示数。

5. Press [▲▼] to accept flow setting and to exit user setup functions.

5、按[▲▼]键接受设定的流量并退出用户设定功能。

See Calibration for instructions on calibrating pump flow rate.

见流量校准说明书

Setting a Timed Run
设定定时运行

Program the AirChek XR5000 from its keypad to run from 1 to 9999 minutes.
从AirChek XR5000键区编制从1-9999分钟的运行程序。
With pump in a non-running state (no flashing blue LED):
在泵非运行状态（蓝色指示灯不闪烁）

1. Press ✹▲▼✹ to enter user setup functions.

1、按✹▲▼✹进入用户设定功能

2. Press ✹ until a flashing Set Timed Run and min appear on the display.

2、按✹直到闪烁的Set Timed Run 和min出现在显示屏上。

3. Press ▲ to increase or ▼ to decrease minutes.

3、按▲键增加或▼键减少时间。

4. Press [▲▼] to accept timed run setting and to exit user setup functions. The setting will appear on the display and the pump will be ready to run.

4、按[▲▼]接受设定的定时运行时间并退出用户设定功能。设定的时间就出现在显示屏上，泵准备好运行。

5. Press [▲▼] to run the pump. *See Note.*

5、按[▲▼]键运行泵。见注意。

- *During a timed run, the blue LED on top of the pump case will flash and time remaining will count down in minutes on the LCD. Once run is complete, pump will stop and accumulated run time will display.*

  在时间运行期间，泵壳上部的蓝色指示灯不停闪烁，时间以倒计时的分钟显示在液晶显示屏上。一旦运行结束，泵将停止同时累积运行时间显示在泵显示屏上。

- *"Timed Run" will only appear on the LCD when a timed run duration in minutes has been selected in user setup functions.*

  "Timed RUN" 只在已经在用户设定功能区选择了以分钟定时运行时才出现在显示屏上。

  Setting a new timed run automatically clears accumulated run time.
  设定一个新的定时运行将自动清除累积运行时间。

Setting a Run Delay
设定运行延迟

Program the AirChek XR5000 from its keypad to automatically start a sample run after a specified period of time has elapsed.
从AirChek XR5000采样泵的键上设定程序以在特定时间结束后自动开始运行。
With pump in a non-running state (no flashing blue LED):
泵处于非运行状态（蓝色显示灯不闪）：

1. Press ✹▲▼✹ to enter user setup functions.

1、按✹▲▼✹键进入用户设定功能

2. Press ✷ until a flashing Set Run Delay and min appear on the display.

2、按✷键直到一个闪烁的Set Run Delay和min出现在显示屏上。

3. Press ▲ to increase or ▼ to decrease minutes.

3、按▲键增加或▼键减少设定时间

4. Press [▲▼] to accept run delay setting and to exit user setup functions. Run delay time will display on the LCD and the pump will be ready to start run delay.

4、按[▲▼]键接受运行延迟设定并退出用户设定功能。运行延迟时间将显示在液晶显示屏上，泵准备好开始运行延迟。

5. Press [▲▼] to activate the pump. *See Note.*

5、按[▲▼]*键运行泵。见注意。*

• During a run delay, time remaining will count down in minutes and display on the LCD. The blue LED on top of the pump case will flash during run delay time even though the pump is not running. Once the run delay time has elapsed, the pump will start running and accumulated run time will count up in minutes and appear on the display. Once sampling run is complete, stop the pump by pressing [▲▼]. Accumulated run time will remain on the display.

在运行延迟期间，剩余时间将会在液晶显示屏上出现倒计时。在运行延迟期间即使泵没有运行，泵壳上部的蓝色指示灯不断闪烁。一旦泵延迟时间结束，泵就开始运行。累积运行时间将会以累积分钟出现在显示屏上。当泵运行结束时，按[▲▼]键停泵。累积运行时间会保持在显示屏上。

• "Run Delay" will only appear on the LCD when a run delay duration in minutes has been selected in user setup functions.

当在用户设定功能区设定了运行延迟时间，"Run Delay"将只出现在液晶显示屏上。

Setting a new run delay automatically clears accumulated run time.

设定一个新的运行延迟会自动清除累积运行时间。

Setup

设定

Setting a Run Delay and Timed Run

设定运行延迟和定时运行

With pump in a non-running state (no flashing blue LED):

在泵非运行状态（蓝色指示灯不闪烁）

1. Press ✷▲▼✷ to enter user setup functions.

1、按 ✷▲▼✷　进入用户设定功能

2. Press ✷ until flashing Set Timed Run and min appear on the display.

2、按✷键直到闪烁的Set Timed Run和min出现在显示屏上

3. Press ▲ to increase or ▼ to decrease minutes.

3、按▲键增加或▼键减少时间（分钟）

4. Press ✷ to scroll to a flashing Set Run Delay and min.

4、按✷键滚动到闪烁的Set Run Delay and min。

5. Press ▲ to increase or ▼ to decrease minutes.

5、按▲键增加或▼键减少时间（分钟）

6. Press [▲▼] to accept run delay and timed run settings and to exit user setup functions. The run delay setting will appear on the LCD and the pump will be ready to start run delay.

6、按[▲▼]键接受运行延迟和定时运行设定并退出用户设定功能。运行延迟设定就出现在液晶显示屏上，泵准备好开始运行延迟

7. Press [▲▼] to activate the pump. *See Note.*

7、按[▲▼]*键运行泵。见注意*

•During a run delay, the blue LED on top of the pump case will flash, time remaining will count down to 0 in minutes on display, and timed run will begin automatically. Timed run will count down in minutes. Once run is complete, pump will stop and accumulated run time will display.

运行延迟期间，泵壳上部的蓝色指示灯不停闪烁，剩余时间将会以分钟倒计时出现在显示屏上，当剩余时间到0时，定时运行就自动开始。定时运行将会以分钟倒计时。一旦运行完成，泵会停止，同时累积运行时间出现在显示屏上。

•"Run Delay" will display first. Once delay is complete and the run starts, "Timed Run" will display.

"Run Delay"首先显示。一旦延迟结束后运行开始，"Timed Run"就显示。

When setting a timed run or run delay with a large number of minutes in user setup functions, press ✷ with ▲ or ▼. This activates the speed count feature which scrolls through timed run or run delay minutes in increments of 100.

当setting a timed run或run delay在用户设定功能区显示出来时，按✷ 键和 ▲ 或▼键.

这可以激活快速增加功能，这种功能将以100为单位滚动显示定时运行或运行延迟时间。

Setting a new run delay and timed run automatically clears accumulated run time.

设定新的运行延迟和定时运行将会自动清除累积运行时间。

Canceling a Timed Run and/or Run Delay

取消定时运行和/或运行延迟

With pump in a non-running state (no flashing blue LED):

1. Press ✹▲▼✹ to enter user setup functions.
2. Press ✹ until flashing Set Timed Run and min appear on the display.
3. Press ▼ until time displays as 0.
4. Repeat for Run Delay if needed.
5. Press [▲▼] to exit user setup functions. Pump will be ready to run.

在泵处于非运行状态时（蓝色指示灯不闪烁）

1、按✹▲▼✹键进入用户设定功能

2、按✹键直到闪烁的Set Timed Run和min出现在显示屏上。

3、按▼键直到时间显示为0

4、如果需要的话重复进入运行延迟

5、按[▲▼]键退出用户设定功能。泵准备好运行。

Selecting CLr in user setup functions after a sample run will clear accumulated run time only. It will not clear Timed Run or Run Delay time settings.

样品运行后在用户设定功能选择 CLr 只会清除累积运行时间，而不会清除设定的定时运行或运行延迟。

校准

Calibration (High Flow: 1000 to 5000 ml/min)
校准（高流量：1000-5000ml/min）

1. Connect pump inlet to the outlet of a primary standard calibrator with representative sample medium in line. With pump in a non-running state (no flashing blue LED):
2. Press ✹▲▼✹ to enter user setup functions.
3. Press ✹ until ADJ and FLOW flash on display. Press ▲ to increase flow. Press ▼ to decrease flow. Dashed lines will move up or down on the display to indicate graphically the direction of the adjustment. **Flow rate will not display on pump LCD. Observe the calibrator to determine flow rate.**

Adjust flow with flow adjustment screw on tube holder.

4. Once desired flow rate is indicated on the calibrator (within ± 5%), press [▲▼] to accept flow setting and to exit user setup functions. The pump will be ready to run.

    • Changing the flow rate in user setup functions will ***not*** clear accumulated run time.

    • Changing the timed run and/or run delay settings in user setup functions will automatically clear accumulated run time.

5. Disconnect the calibrator and tubing. Replace representative tubes with new unexposed media for sampling.

1、将泵进口通过一个有代表性的采样介质与初级标准校准器出口连接。然后在泵处于非运行状态时（蓝色指示灯不闪烁）：

2、按✹▲▼✹键进入用户设定功能

3、按✹键直到 ADJ 和 FLOW 闪烁出现在显示屏上。按▲键增加流量。按▼键降低流量。显示屏上出现的虚线会上下移动，以图形形象地表示调整的方向。流量不显示在泵的液晶显示屏上。观察校准器确定泵流量。

4、一旦预期的流量出现在校准器上（± 5% 范围内）。按[▲▼]键接受设定的流量并退出用户设定功能。泵已准备好运行。

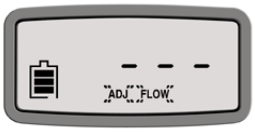
在用户设定功能改变流量不会清除累积运行时间

在用户设定功能区改变定时运行和/或运行延迟会自动清除累积运行时间

5、将校准器与调节流量的管断开。用一个新的采样管用于采样。

Calibration
校准

Calibration (Low Flow: 5 to 500 ml/min)
校准（低流量：5-500ml/min）



Requires Constant Press Controller (CPC) and Adjustable Low Flow Tube Holder - see Accessories, Low Flow Adapter Kit on p. 15.
需要连续压力控制器（CPC）和可调低流量管固定器。

1. Set pump flow rate to approximately 1.5 L/min (*see Setting Flow Rate*). *For multiple-tube sampling, the pump flow rate setting must be greater than the sum of the required flow rates through all the tubes.*

1、设定泵流量约为1.5L/min（见设定流量）。对于多重管路采样，设定的泵流量应该比通过所有管路需要的流量总和要大。

2. Use tubing on CPC to connect the pump inlet to the CPC outlet (the side of the CPC without a label). Connect the inlet side of the CPC (marked “to sample”) to the Adjustable Low Flow Tube Holder.

2、用连续压力控制器上的管将泵进口和压力控制器（CPC的侧面无标签）出口连接起来。将CPC进口侧（标记为“到样品”）与可调低流量管固定器连接。

3. Label all tubes and ports if performing multiple-tube sampling.

3、如果运行多重管路采样，将所有的管和端口贴上标签。

4. Insert opened representative tubes into the rubber sleeve(s) of each port on the Adjustable Low Flow Tube Holder. If any ports remain unused, place unopened tubes in them; it is important to “seal” unused ports.

4、将打开的采样管插入到每个可调低流量管路固定器端口的橡皮套内。如果有端口没有使用，插入一只未开口的采样管。将不使用的端口 “密封”是很重要的。

5. Use tubing to connect the exposed end of one tube to a primary standard calibrator.

5、用软管将管的末端与初级标准校准器相连。

6. Turn on pump. Turn the flow adjustment screw (needle valve) on the tube holder until the calibrator indicates the desired flow rate **(do not adjust the flow rate of the pump)**. For multiple-tube sampling, repeat this procedure for each port to calibrate the flow rate for each tube. Seal unused ports during calibration.

6、打开泵。打开管路固定器上的流量调节螺丝（针形阀）打开，直到校准器出现预期的流量（不要调节泵的流量）。对于多重管路采样，对每一个端口重复此步骤以校准每一个管的流量。在校准时密封未使用的端口。

7. Disconnect the calibrator and tubing. Replace representative tubes with new unexposed tubes for sampling.

7、将校准器与管断开。用一新的采样管用于采样。

The CPC has two small inlet ports on the bottom of the unit. These ports should be inspected periodically for blockage, which can occur when sampling in dusty environments. Blocked ports will cause back pressure to increase. Clean ports with a small pick and use air to blow away particles.

连续压力控制器在泵单元的底部有两个小的进口。这些端口应定期检查以防止堵塞，堵塞可能发生在多尘的环境中采样后。堵塞的端口可能会导致背压增加。用小的尖针清除端口并用空气将颗粒物吹去。

Long-duration color detector tubes require a special tube cover (Cat. No. 224-29T) that accommodates an in-line trap tube (Cat. No. 222-3D-2). The trap tube protects the pump from caustic fumes that are often released from detector tubes. Read closely all precautions when using these tubes. Failure to use the necessary traps will damage the pump and void the warranty.

长效检测指示管需要一特殊的管帽（货号：NO224-29T）以提供一致的捕集管（货号：NO.222-3D-2）。该捕集管保护泵不被由检测管释放的腐蚀性的烟雾损坏。当使用这些管采样时应详细了解所有预防措施，忽视使用这些必须的管可能会损坏泵并导致质量保证无效。

Adjust flow with flow adjustment screw on tube holder.

Sampling
采样

1. Calibrate pump flow rate *(see Setting Flow Rate and Calibration).*

1、校准泵流量（见设定泵流量及校准）

2. Replace representative sampling media with new unexposed media.

2、用新的干净的采样介质替代调节流量的采样介质

3. To start a continuous or timed sample run, press [▲▼]. Record start time and other pertinent information.

3、要开始连续性或定时的采样，按[▲▼]键。记录开始时间及其他有关的信息。

- Sampling will start automatically if a run delay is set and initiated. Sampling will stop automatically if a timed run is set and initiated.
  如果设定并启动了运行延迟，采样会自动开始。如果设定并启动了定时运行，采样会自动停止。
- For automatic start and stop, set and initiate both a run delay ***and*** a timed run.
  为能够自动开始和停止，运行延迟和定时运行都应该设定并启动。

4. Sample for the time specified in the method used. Accumulated run time will display on the LCD.
   使用指定的方法采集一定时间的样品。液晶显示屏上将会显示累积运行时间。

5. To stop a sample run, press [▲▼]. This places the pump in Hold. Record stop time and other pertinent information.

要停止采样，按[▲▼]键。这样泵会处于Hold状态。记录停止时间和其他有关的信息。

a. To resume sample run without clearing accumulated run time, press [▲▼].

A、如果不需要清除累积运行时间而重新开始运行样品，按[▲▼]键。

b. To clear accumulated run time, place pump in Hold, press ✷▲▼✷ to enter user setup functions, and press [▲▼] when CLr displays.

B、要清除累积运行时间，将泵处于Hold状态，按✷▲▼✷键进入用户设定功能，当出现CLr时，按[▲▼]键

When using impingers, place a trap between the pump and the impinger to protect the pump from harmful liquids or vapors. Failure to use the impinger trap voids the pump warranty.

如果使用冲击式吸收管，将一捕集管放在泵和吸收管之间以保护泵不被液体和蒸汽损坏。错误使用冲击式吸收管将会导致泵的质量保证无效。

Flow Fault
流量错误

If the pump is unable to compensate for longer than 15 seconds due to excessive back pressure, the pump enters flow fault. During flow fault, the fault icon displays on the display and flashes during the length of the fault, the pump enters Hold mode, and the accumulated run time display is retained. The pump will restart in 15 seconds and try to continue sampling. If the flow remains restricted, the pump will return to flow fault. Auto-restart is attempted every 15 seconds up to 5 times. Flow fault time is not added to accumulated run time.

如果泵由于超过背压而超过15秒不能补偿，泵就会出现流量错误。在流量错误出现期间，错误图标就会显示在显示屏上并在错误期间不断闪烁，同时泵进入Hold模式，累积运行时间就一直显示在显示屏上。15秒内泵会重新启动并试图继续运行。如果流量持续受限，泵重新回到流量错误状态。每隔15秒的自动重启将会尝试5次。流量错误时间不会累加到累积运行时间内。

To clear a flow fault and the flow fault icon, determine the cause of the fault, remedy the fault cause, and press [▲▼] to remove the icon from the LCD and restart the pump.

要清除流量错误和流量错误图标，需找到并清除导致错误的原因，然后按[▲▼]键从液晶显示屏上清除流量错误图标并重新运行泵。

A low battery fault may occur instead of a flow fault when there is a low battery charge at the time of the fault, excessive back pressure, and/or when there is a very short distance between the restriction and the pump inlet (e.g., finger fault versus pinched tubing). **The flow fault icon will not appear and auto-restart will not be activated under these conditions.** A low battery fault icon (see page 12) will appear instead and the pump will go to Sleep.

在出现错误、背压过高和/或在和泵进口和限制之间有很短距离（如由于管挤压而出现的折叠）发生同时电量不足时，显示屏上会显示低电量错误而不是流量错误。这种情况下流量错误图标不出现而且自动重启也不会激活。低电量错误图标（见12页）会出现，泵会进入休眠状态。

If pump goes to Sleep while in flow fault, the flow fault icon may remain on the display when the pump is subsequently turned on. To remove the icon from the display, place pump in Hold, press ✹▲▼✹ to enter user setup functions, and press [▲▼] when CLr appears.

如果在流量错误期间泵进入休眠状态，下次开机时流量错误图标仍然出现在显示屏上。要将该图标移去，将泵处于Hold状态，按✹▲▼✹进入用户设定功能，在CLr出现时按[▲▼]键。

Flow fault during
continuous run.

Battery Operation
电池操作

Battery Condition
电池状态

Three bars indicate a full charge (normally appears after charging), approximately 75% to 100%.
三格表示电池电量较满（正常情况充电后会出现），约75%-100%

Two bars indicate the battery is charged enough to operate the pump, approximately 25% to 75%.
两格表明电池电量能够使泵运行，约25%-75%.

One bar indicates battery charge is low (charge battery), approximately 1% to 25%.
一格表明电池电量较低（需充电），约1%-25%

No bars indicate that low battery fault is imminent.
空格表明马上会出现低电量错误

Low Battery Fault
低电量错误

No bars and a flashing outline indicate a low battery fault (pump will go into Hold and go to sleep after 15 seconds in low battery fault). Accumulated run time will be retained.
空格和闪烁的图形表明低电量错误（在低电量错误时泵会进入Hold状态并会在15秒内进入休眠状态）。累积运行时间会一直保留。

Charging the Lithium-Ion Battery Pack
给锂电池组充电

For models containing a lithium-ion battery pack only.
只适用于含锂电池组的模式

1. Insert plug on charging unit into the battery charging jack on back of pump. Ensure plug is oriented so that the arrow on the plug is facing upward.

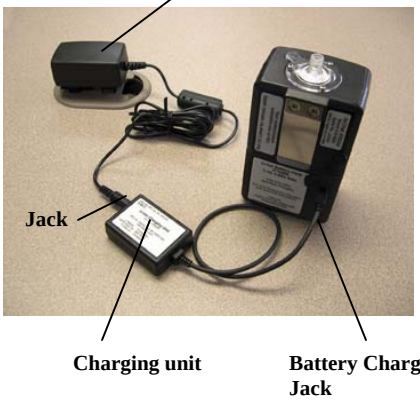
1、将充电器上的插头插进泵后部的充电孔。确保插头方向正确，插头上的箭头应该朝上。

2. Insert plug on power supply into jack on charging unit

2、将充电器上的插头插入到充电器的插孔上。

3. Slide appropriate wall plug into power supply and plug power supply into a wall outlet.

3、寻找合适的墙体电源将充电器插头插入到墙上的出口处。



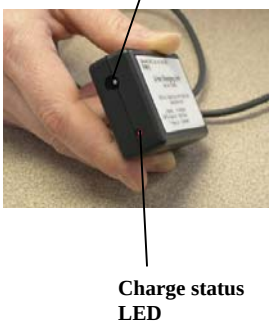
The standard 2-cell Li-Ion battery pack will recharge in approximately 4 hours. The high-power 4-cell Li-Ion battery pack will recharge in approximately 8 hours. *See www.skcinc.com for information on maintaining, disposing, and shipping Li-Ion batteries.*
标准2芯锂电池在使用约4小时后需要重新充电。高效4芯锂电池可使用约8小时。

Reading the Charging Status LED

观测充电状态指示灯

The Li-Ion Charging Unit (Cat. No. P22300) indicates battery charge status via an LED on the unit that blinks in specific patterns. Observe the LED steadily for > 5 seconds to read charge status.
锂电池充电单元（NO.P22300）通过泵上面的一个闪烁的特定模式的指示灯表示电池充电状态。观察指示灯稳定显示大于5秒来估计充电状态。

ON ✹ steady				Charge in progress
ON ✹ 2 sec	OFF ○ .25 sec	ON ✹ 2 sec	(Repeats)	80% charged 80%完成
OFF ○ 2 sec	ON ✹ .25 sec	OFF ○ 2 sec	(Repeats)	Charge completed 充电完成



Cautions:

警告

- ***Use only the charger and battery packs designed for the AirChek XR5000 pump to ensure reliable performance and retain the SKC warranty.***

只使用专为AirChek XR5000泵设计的电池组和充电器以确保可靠的应用并能保持SKC的质量保证。

- ***For safe operation in hazardous atmospheres, ensure the pump label contains the logo and the battery pack label contains Cat. No. P85004 or P85002. Use of any other battery pack (including alkaline) voids the UL Listing for intrinsic safety.***

为了保证能在危险空气环境中安全操作，确保泵标签含有标识而且电池组标签含有货号NO。P85004或P85002。其他任何电池组（包括碱性电池）都导致UL列出的本质安全性无效。

- ***Tampering with the battery pack or using a repaired or rebuilt battery pack voids the SKC warranty and UL Listing for intrinsic safety.***

电池组的损坏或使用维修过的电池组将会使SKC的质量保证和UL列出的本质安全性无效。

- ***Do not overcharge the battery. Do not open, disassemble, short circuit, crush, incinerate, or expose the battery to fire or temperatures in excess of 213 F (100 C).***

不要过度充电。不要打开、拆卸、短路、挤压、焚烧或将电池投入火中或使电池温度超过213℉ (100℃)

- ***See http://www.skcinc.com/instructions/1721.pdf for more information on maintaining, disposing, and shipping Li-Ion batteries.***

Battery Operation
电池操作

Replacing the Li-Ion Battery Pack
更换锂电池组

For models containing a lithium-ion battery pack only.
只适用于含有锂电池组的模式。

- SKC ships lithium-ion battery packs uncharged to promote maximum battery life.
  SKC随泵装有未充电的锂电池组以确保最长的电池寿命
- Battery packs are shipped with pumps, but are not installed.
  电池组和泵一起运送，但是没有安装。
- Once installed, completely charge battery pack before operating the pump.
  一旦将电池安装，在使用泵前要完全充电。

To retain display data, ensure pump is placed in Hold before disconnecting the battery pack. Display data will not be retained if battery is removed while pump is running.
为保留显示的数据，在卸下电池组前确保泵处于Hold位置。如果泵在运行时将电池取下，显示的资料将不被保留

1. Release the battery pack by removing the two screws on the bottom of the battery pack housing.

1、将电池组壳底部的两个螺丝拧下，松开电池组。

2. Pull battery pack housing away from pump case.

2、将电池组壳从泵上卸下。

3. Carefully align the battery jack on the replacement battery pack with the battery terminal on the bottom of the pump base plate and push the new battery pack into place.

3、小心将替换的电池组的电池插孔与泵底部的电池线对齐，然后将新电池准确插入。

4. Replace and tighten two screws on bottom of battery pack housing.

4、将电池组壳底部的两个螺丝放回原处并拧紧。

Cautions:

警告：

- ***For safe operation in hazardous atmospheres, ensure the pump label contains the logo and the battery pack label contains Cat. No. P85004 or P85002. Use of any other battery pack (including alkaline) voids the UL Listing for intrinsic safety.***

为保证能在危险空气环境中安全操作，确保泵标签含有标识而且电池组标签含有货号NO。P85004或P85002。其他任何电池组（包括碱性电池）都使UL列出的本质安全性无效。

- ***Use only the charger and battery packs designed for the AirChek XR5000 pump to ensure reliable performance and retain the SKC warranty.***

只使用专为AirChek XR5000泵设计的电池组和充电器以确保可靠的应用并能保持SKC的质量保证。

- ***Use only SKC-approved parts to ensure reliable performance, retain the SKC warranty, and to maintain the UL Listing for intrinsic safety.***

只使用SKC认可的零件以确保可靠的运行、保持SKC的质量保证并能保持UL所列出的本质安全性。

- ***Tampering with the battery pack or using a repaired or rebuilt battery pack voids the SKC warranty and UL Listing for intrinsic safety.***

电池组的损坏或使用维修过的电池组将会使SKC的质量保证和UL所列出的本质安全性无效。

- ***Do not overcharge the battery. Do not open, disassemble, short circuit, crush, incinerate, or expose the battery to fire or temperatures in excess of 213 F (100 C).***

不要过度充电。不要打开、拆卸、短路、挤压、焚烧或将电池投入火中或使电池温度超过213℉(100℃)

Battery Operation
电池操作

Changing the Batteries
更换电池

For models containing AA alkaline batteries only.
只适用于2A规格的碱性电池

To retain display data, ensure pump has been allowed to go to sleep after the last run (see Turning the Pump Off). Display data will not be retained if batteries are removed while pump is running.

为保持显示的资料，确保泵在最后运行后能够进入休眠状态（见关泵），如果在泵运行期间将电池取掉显示的资料就会丢失。

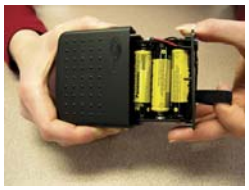
1. Remove two screws on bottom of battery pack housing.

1、将电池壳底部的两个螺丝拧掉

2. Pull battery pack housing away from pump case.

2、将电池壳从泵上卸下。

3. Holding battery pack housing tightly in one hand, place a finger from the other hand through the loop on top of the battery pack. Pull upward firmly to remove the battery holder from the housing.

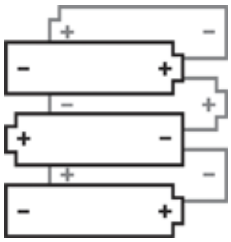


3、一只手紧握电池组壳，将另一只手的一个手指放入到电池组顶部的环形圈上。用力往上推将电池固定器从壳上取下。

4. Remove batteries from holder and replace with new batteries in the following polarity arrangement:

将电池从固定器上取下，然后按照下面显示的极性安装新的电池。

Polarity is marked inside the battery holder.

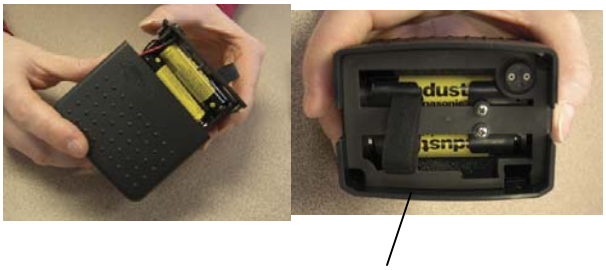


Back Layer

Front Layer

5. Orient battery holder properly with battery pack housing (*black and red wires and battery terminal toward front of housing with SKC logo*) and press down firmly on top of holder until it is completely seated and level inside the housing.

正确调整电池固定器与电池壳方向（黑色和红色的线和电池接线端朝着带有SKC标志的电池壳前面），在固定器上部用力向下按直到电池完全固定并和电池壳对齐。



Front of housing with SKC logo

6. Carefully align battery jack with battery terminal on bottom of pump base plate. Push battery pack into place.

小心将电池插孔和泵底部的电池线连结，将电池组插入正确的位置。

7. Replace and tighten two screws on bottom of battery pack housing.

将电池组壳底部的两个螺丝放回原处并拧紧。

Cautions:

- ***For safe operation in hazardous atmospheres, ensure the pump label contains the logo and the battery pack label contains Cat. No. P85004 or P85002. Use of any other battery pack (including alkaline) voids the UL Listing for intrinsic safety.***
  battery pack (including alkaline) voids the UL Listing for intrinsic safety.
  为了能在危险空气环境中安全操作，确保泵标签含有标识而且电池组标签含有货号NO。P85004或P85002。其他任何电池组（包括碱性电池）都使得UL列出的本质安全性无效。
- ***Use only the charger and battery packs designed for the AirChek XR5000 pump to ensure reliable performance and retain the SKC warranty.***
  只使用专为AirChek XR5000泵设计的电池组和充电器以确保可靠的应用并能保持SKC的质量保证
- ***Use only SKC-approved parts to ensure reliable performance, retain the SKC warranty, and to maintain the UL Listing for intrinsic safety.***

只使用 SKC 认可的零件以确保可靠的运行，保持 SKC 的质量保证并能保持 UL 列出的本质安全性。

- **Li-Ion Battery Shipment**

  Rechargeable lithium-ion batteries for use with SKC sample pumps have been tested in accordance with the UN Manual and are proven to meet requirements of each test in the *UN Manual of Test Criteria*, Part III, subsection 38.3. They have a watt-hour (Wh) rating below 100.

  Per 2010 IATA regulations, packaging must meet the specifications of and contain labeling and documentation required by IATA Packing Instructions 965, 966, and 967. *See IATA Guidance Document: Transport of Lithium Metal and Lithium Ion Batteries, Revised for the 2010 Regulations*

Description描述	**Cat. No.货号**
Defender Primary Standard Calibrator, 50-5000 ml/min flow range, includes lead-acid battery, charger (100-240 V), Optimizer 110 Software, and 1-meter serial cable 保护性初级校准器，流量范围：50-5000ml/min，包括酸性铅电池，100-240V充电器，优化110软件和1米长的数据线	717-510M
Single Charging Kit, *for models with Li-Ion battery packs only,* 100-240 V AC, 50/60 Hz, includes charging unit, power supply, and interchangeable wall plugs 单一充电工具包，仅适用于锂电池组模式，100-240V交流电，50/60Hz，包括充电单元，充电器和内置可充电的墙插销	223-241
Protective Pouches保护袋	
Suitable for use with high-power Li-Ion and alkaline XR5000 pump models *可用于XR5000泵的高效锂电和碱性电池*	
Red, for high visibility红色袋，具有高能见性	224-96A
Black, sound reducing 黑色，能见性较小	224-96C
Black 黑色	224-88
Low Flow Adapter Kit (5 to 500 ml/min) *Suitable for all XR5000 pump models,* includes constant pressure controller (CPC), adjustable low flow tube holder, and Type A protective tube cover ..... *低流量适配器工具包（5-500ml/min），适用于所有的XR5000* 泵模件，包括连续压力控制器（CPC），可调低流量管路固定器和A型保护管盖210-500	210-500
Constant Pressure Controller (CPC), for sampling in the 5 to 500 ml/min flow range. *Use with adjustable low flow holder listed below. CPC included in Low Flow Adapter Kit (above).* ..... 连续压力控制器（CPC），用于5-500ml/min的流量采样。需用下面所列出的可调低流量固定器。CPC包含在上面所列出的低流量适配器工具包中。	224-26-CPC
Adjustable Low Flow Tube Holders for Low Flow (5 to 500 ml/min) Sampling *Use with CPC listed above. Require separate tube covers listed below.* *和上面列出的连续压力控制器同时使用的低流量（5-500ml/min）采样的可调低流量固定器。需要下面列出的单独的管盖*	
Single (*included in Low Flow Adapter Kit above)* ..... 单向（包含在上面所列出的低流量适配器工具包中）	224-26-01
Dual 双向	224-26-02
Tri 三向	224-26-03
Quad 四向	224-26-04

Sample Tube Protective Covers样品管保护盖

Use with adjustable flow tube holders listed above.使用上面列出的可调流量管固定器

Type A (tubes 6-mm OD x 70-mm L), *included in Low Flow Adapter Kit above* 224-29A

A型（7cm长，6mm外径的管），包括在上面所列出的低流量适配器工具包中

Type B (tubes 8-mm OD x 110-mm L) 224-29B

B型（11cm长，8mm外径）

Type C (tubes 10-mm OD x 150-mm L) 224-29C

C型（15cm长，10mm外径）

Type T (tandem for color detector tubes up to 115 mm L and a trap tube) 224-29T

T型（前后接有长度达到11.5cm长的变色检测管和捕集管）

Long-duration Detector Tube Accessories

长时间检测管附件

Trap Tubes 捕集管 222-3D-2

Tandem Plastic Tube Cover（采样管前后用的塑料帽） 224-29T

Replacement Parts

Description描述	Cat. No.货号
Battery Packs电池组	
High-power Li-Ion (4-cell for UL Listed pump).....	P85004
Standard Li-Ion (2-cell for UL Listed pump)	P85002
Alkaline (6-cell) - Use voids pump UL Listing for intrinsic safety	P75715
Belt Clip	P20139
Filter (inlet)/O-ring (3)	P20140
Filter Housing	P20142
Filters, inlet (50)	P40011

Cautions:

- ***For safe operation in hazardous atmospheres, ensure the pump label contains the logo and the battery pack label contains Cat. No. P85004 or P85002. Use of any other battery pack (including alkaline) voids the UL Listing for intrinsic safety.***

- ***Use only SKC-approved parts to ensure reliable performance, retain the SKC warranty, and to maintain the UL Listing for intrinsic safety.***

可更换零件

描述	货号
电池组	
高效锂电池（UL列出的泵适用的4芯电池）	P85004
标准锂电池（UL列出的泵适用的2芯电池）	P85002
6芯碱性电池-对UL列出的泵的本质安全性无效	P75715
环形夹	P20139
滤膜（进口）/O形环（3）	P20140
滤膜盒	P20142
滤膜，进口（50）	P40011

警告：
为保证能在危险的大气环境中安全操作，确保泵标签包含标识，并且电池组标签包含货号为 P85004 或 P85002。使用任何其他的电池组（包括碱性电池）对 UL 所列出的本质安全性无效。
只使用 SKC 认可的货物部分以确保可靠的应用，并能保持 SKC 质量保证和保持 UL 所列出的本质安全性。

SKC Limited Warranty and Return Policy

SKC products are subject to the SKC Limited Warranty and Return Policy, which provides SKC's sole liability and the buyer's exclusive remedy. To view the complete SKC Limited Warranty and Return Policy, go to http://www.skcinc.com/warranty.asp.