QuickTake 30 Sample Pump
Cat. No. 228-9530
Operating Instructions

863 Valley View Road, Eighty Four, PA 15330 USA • 724-941-9701 • skcinc.com


Cassette Adapter


Tubing Adapter

Figure 1. *QuickTake 30 Sample Pump*

Introduction

Description

The QuickTake® 30 Sample Pump *(Figure 1)* is a portable battery-powered air sample pump that maintains constant airflow from 10 to 30 L/min for use with the BioStage® viable cascade impactor, spore trap cassettes such as VersaTrap®, asbestos cassettes, microvacuum cassettes, or other samplers requiring flows up to 30 L/min. A diaphragm pump operating with a closed loop flow control system, the QuickTake 30 maintains true constant flow. The QuickTake 30 features a programmable timer that provides up to eight programmable run time presets of 1 to 999 minutes, continuous run with manual shut-off, or intermittent sampling. A rechargeable lithium-ion battery pack provides effective run times. *See Appendix: Performance Profile - Typical Cumulative Run Time.*

Checking Pump/Kit Contents

Use the table below to verify that you received all items associated with the Cat. No. ordered. If you are missing items, contact SKC at 800-752-8472 (U.S. only) or 724-941-9701.

If You Ordered Cat. No.	Your Package Should Contain
228-9530C	QuickTake 30 Pump with lithium-ion (Li-Ion) battery pack and cassette/tubing adapters
228-9530	QuickTake 30 Pump and Charger includes pump with Li-Ion battery pack, 100-240 V AC charger/adapter, cassette/tubing adapters, and tubing
228-9530A	QuickTake 30 Pump, Rotameter, and Charger includes pump with Li-Ion battery pack, 100-240 V charger/adapter, cassette/tubing adapters, calibrator, and tubing

Required Equipment

- ☑ **3/8-inch ID (1/2-inch OD) Tygon® tubing**
- ☑ **Charger for Li-Ion battery-powered pump**

Getting Started

Charge the Battery

1. For a complete charge, ensure the pump is **not** running. Insert the charger plug into the charging jack on the pump.

2. Insert the charger into a wall outlet. A red LED will flash on the pump display to indicate the unit is charging. When charging is complete, the LED will stop flashing and the pump will go to sleep. The battery charges completely in 5 hours. ***Note:*** *The QuickTake 30 can be operated using AC power. See Operate from AC Power.*

Charging train

Determining Battery Charge

Battery Status Indicators

bAt.3	Full charge; approximately 75 to 100% battery capacity remaining
bAt.2	Battery is charged enough to operate the pump; approximately 25 to 75% battery capacity remaining.
bAt.1	Battery charge is low (charge battery); approximately 1 to 25% battery capacity remaining.
bAt.0	Low Battery Fault. Pump will stop running, beep, and go to sleep in 10 seconds.

Notes and Cautions

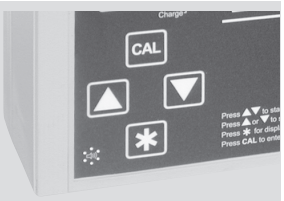
- After charging the battery pack, it is good practice to run the pump for approximately 5 minutes before calibrating. This ensures the battery is in a more steady-state condition and improves the agreement in pre and post-sampling calibrations.
- The pump will not sleep during charging. Connecting a sleeping pump to the charger will wake it up from sleep.
- The AC charger/adapter can be used to extend battery run time, but it is not a battery eliminator. Therefore, it will not provide indefinite run times.
- Do not operate or charge the pump in hazardous locations.
- Use only the SKC-approved charger for this pump. Use of an unapproved charger may damage the battery and the pump and voids any warranty.
- The battery pack may be kept on the SKC-approved charger for an indefinite time.
- Ensure proper orientation of the charging cable before plugging it into the charging jack. Improper orientation/contact will short circuit the battery and voids any warranty.
- Short-circuiting the battery pack will render it immediately inoperative.
- Failure to follow warnings and cautions voids any warranty.

See www.skcinc.com/knowledgecenter for more information on SKC pump lithium-ion batteries.

How to Use Button Sequences

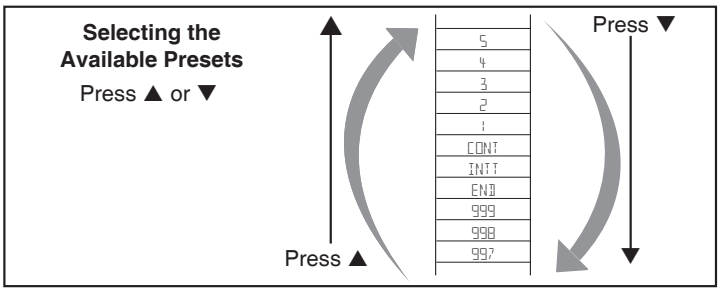
Buttons must be pressed in the sequence shown.

▲ or ▼ = Press individually
[▲▼] = Press both simultaneously
✹▲▼✹ = Security code, press in sequence



Operating the Pump

Operation/Function	Action
Turn pump power on/off (activate LED)	Press and hold ✹ for 2 seconds to activate LED
Check battery status	With LED on, press ✹. If battery status is low, recharge battery. *See Charge the Battery.*
Navigate presets and displays	Press ▲ or ▼ to scroll through presets and displays.
Select a run time preset and run the pump	1. Scroll to desired run time preset. *See below.* 2. Select preset by pressing [▲▼]. The pump will start to run.
Run pump or place in Hold	Press [▲▼].
Repeat sample run	From Done, reset (rSET), or sampling error (SErr), press [▲▼] to return to run time preset. Press [▲▼] to sample.
Turn off LED	The LED is automatically turned off after being idle for 4 minutes. To reactivate the LED, press and hold ✹.
Interrupt run, terminate sample, or reset pump	1. With pump in Hold, press ✹. Sample reset (rSEt) will be displayed. 2. Press [▲▼] to reset the pump or ✹ to ignore the reset and return to Hold.
Set flow or calibrate	1. With pump connected to calibrator, scroll to desired run time preset. 2. Press and hold CAL for 2 seconds to enter calibration mode (pump will start running). 3. Press ▲ or ▼ to reach desired flow rate (not displayed on LED). 4. Press ✹ to display Stor and press [▲▼] to save setting or ✹ to ignore changes. *See Set/Calibrate Flow Rate for details.*



Operate from AC Power

The QuickTake 30 may be run using AC power with the battery and AC charger/adapter:

1. Insert the charger plug into the charging jack on the pump.
2. Insert the charger into a standard wall outlet.
3. Operate the pump.

Notes and Cautions

- The charge light on the LED will flash if the battery is charging during AC operation.
- The AC charger/adapter can be used to extend battery run time, but it is not a battery eliminator. Therefore, it will not provide indefinite run times.
- Do not operate or charge the pump in hazardous locations.
- Use only the SKC-approved battery and charger for this pump. Use of an unapproved battery and/or charger may damage the battery and the pump and voids any warranty.
- To reduce risk of injury, fire, or electric shock, always follow basic safety precautions when using this product.
- Do not submerge the pump or subject it to any liquids.
- Protect the sample pump from weather when in use outdoors.
- Tampering with the battery pack or using a repaired or rebuilt battery pack voids any warranty and UL Listing for intrinsic safety.
- Do not open, disassemble, short circuit, crush, incinerate, or expose the battery to fire or high temperatures.
- Failure to follow warnings or cautions voids any warranty.

Operation

Mount Sampling Media

Spore Trap Cassette

Use the cassette adapter supplied with the pump.

1. Insert the tube end of the adapter into the pump inlet up to the flange.

2. Remove the seal from the outlet of the cassette and push the cassette onto the bowl end of the adapter until a firm seal is established.

Empty cassette adapter

Cassette adapter with spore trap cassette

Calibration Note: Flow rate can be calibrated by pushing the bowl end of a second cassette adapter onto the spore trap cassette inlet (seal removed), attaching flexible tubing to the tube end of the second adapter, and attaching the other end of the flexible tubing to the outlet of a calibrator. *See Set/Calibrate Flow Rate.*

QuickTake 30 with VersaTrap cassette mounted in cassette adapter

For bioaerosol sampling at 15 L/min, SKC recommends using the Leland Legacy® pump (5 to 15 L/min) or the QuickTake 30 pump (10 to 30 L/min).

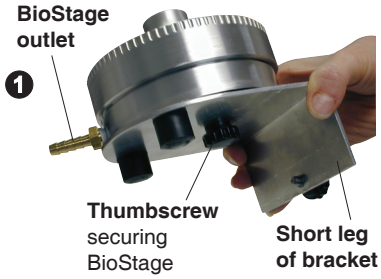
BioStage Impactor

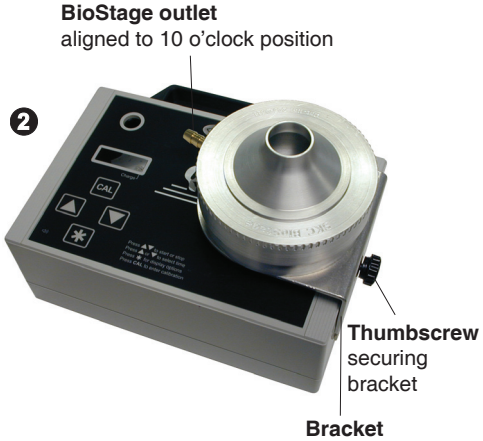
Use with Mounting Bracket accessory (Cat. No. 228-9531).

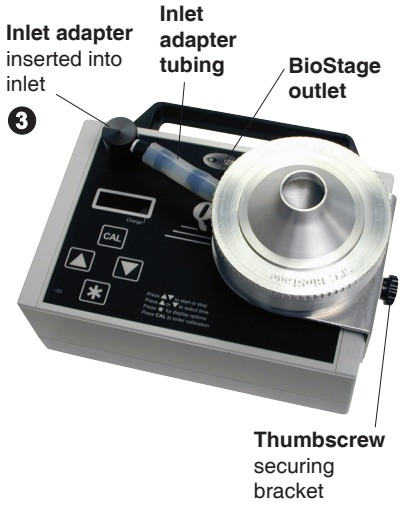
1. Place the BioStage on the L-shaped bracket. Align the BioStage outlet to the 10 o'clock position on the bracket. Secure with thumbscrew on the bottom of the bracket.

2. Place the L-shaped bracket to the right on the pump faceplate with the short leg of the bracket fitting over the right edge of the pump. Align the hole on the short leg of the bracket with the hole on the side of the pump. Secure the bracket to the pump with the thumbscrew.

3. Insert the inlet adapter (included with bracket) into the pump inlet and connect the inlet adapter tubing to the BioStage outlet.



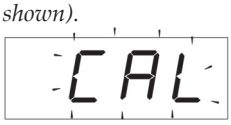




Set/Calibrate Flow Rate

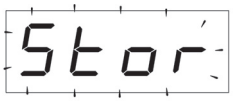
- *Calibrate the flow rate with a representative sampling medium in line.*
- *Allow pump to equilibrate after moving it from one temperature extreme to another.*
- *High Flow chek-mate Calibrator (see Accessories) requires Pulsation Dampener Cat. No. 375-150 in line between representative sample media inlet and calibrator outlet.*

1. Ensure the pump has run for 5 minutes before calibrating. Using 3/8-inch ID flexible tubing and appropriate adapters, connect the inlet of the pump to the outlet of a representative sampling medium; connect a calibrator to the inlet of the representative sampling medium. *See the example of a calibration train below (High Flow chek-mate Calibrator requires pulsation dampener as shown).*
2. Scroll to any run time preset. Press and hold the CAL button for 2 seconds. The pump will start running and a flashing CAL will appear on the LED.



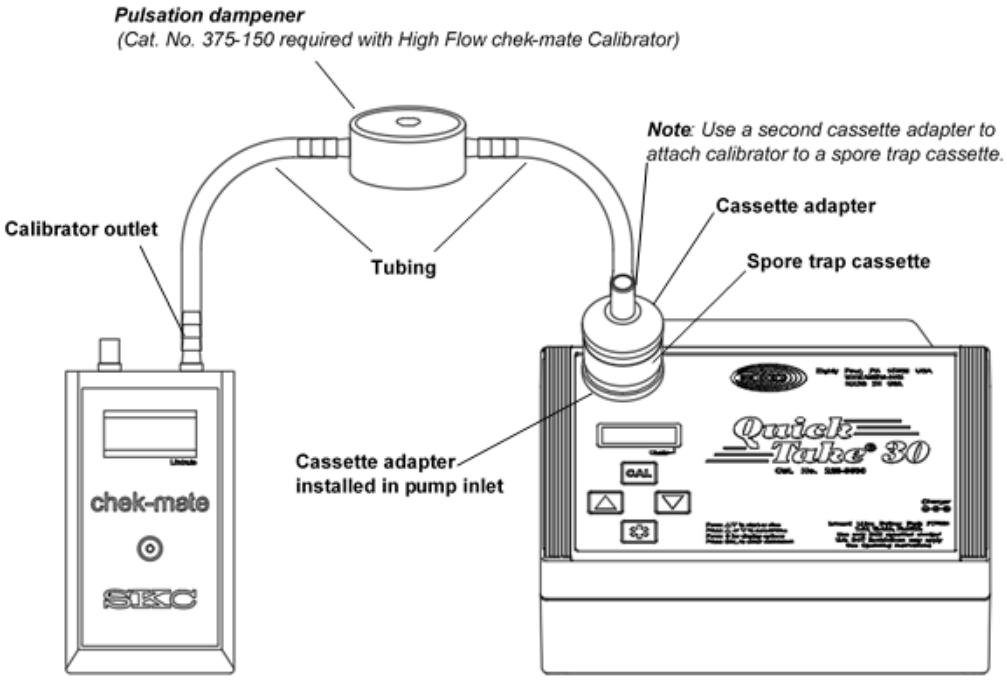
Digital display: Calibration mode

3. Press ▲ or ▼ to increase or decrease the flow until the desired flow rate is displayed on the calibrator.
4. Press ✹. A flashing Stor will appear on the LED.
   - **To save new setting:** Press [▲▼]. The pump will stop running.
   - **To ignore new setting:** Press ✹. The pump will stop running.



Digital display: Store setting

Note: *A security code is not needed to change flow rate. It is only required when changing factory settings. To change factory settings, see Advanced Operation.*



Calibration train with a spore trap cassette

Set Up Run Time Modes

Press ▲ or ▼ to scroll through the run time presets on the LED.

Run Time Mode	LED Display
Timed Run (defaults: 15, 10, 5, 2, and 1 min)	t xx
Intermittent Sampling*	Intt
Continuous Run	Cont

** For setup and sampling in this mode or to change (program) run time presets, see Advanced Operation.*

Timed Run

- *Run time accumulates only while the pump is running.*

Timed Run mode is designed to perform one sample for a predetermined time from 1 to 999 minutes (selected from presets). The user starts the pump running, and the pump automatically stops running after the sample time has elapsed.

Digital display: Timed Run 2 minutes

1. Press ▲ or ▼ to scroll to the desired run time preset.

Digital display: Run time remaining is 2 seconds

2. Press [▲▼] to select the desired preset. The pump will start running and the LED will display a countdown to zero (run time remaining below one minute is displayed in seconds with a colon). The pump will stop and beep four times. The display will flash Done.

Digital display: Sample run completed

3. Press ✹ to return to the run time preset display. To repeat the sample, press [▲▼].

User Options During Timed Run Sampling

Viewing battery status

Press ✹. Display will automatically return to run time remaining after 5 seconds or press ✹ again.

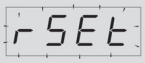
Hold mode

Press [▲▼] while the sample is running to place the pump and timer in Hold. Run time remaining and Hold will display alternately. Press [▲▼] while in Hold to continue the sample run.

Terminating a sample and resetting the pump

Press ✹ while in Hold. Sample Reset (rSEt) will flash on the LED.

- **To terminate the sample and reset the pump:** Press [▲▼].
- **To continue the sample run:** Press ✹ to return the display to Hold. Press [▲▼].



Continuous Run with Manual Stop

- *Run time accumulates only while the pump is running.*

Continuous Run mode performs one sample from 1 to 999 minutes, and then automatically resets to zero and counts up to 999 again until the user manually stops the pump.

1. Press ▲ or ▼ to scroll to Cont. Press [▲▼] to select it. The pump will start running and the LED will display cumulative run time up to 59 seconds in seconds, and then switch to minutes. The timer will count up to 999 minutes, automatically reset to zero, and count up to 999 minutes again until the user manually stops the pump.
2. Press [▲▼] to place the pump in Hold when the desired sampling time has elapsed. The LED will display cumulative run time and Hold alternately.
   - **To continue the sample run:** Press [▲▼].
   - **To terminate the sample and reset the pump:** Press ✷ while in Hold. Sample Reset (rSEt) will flash on the LED. Press [▲▼].

Digital display: Continuous Run

User Options During Continuous Run Sampling

Viewing battery status

Press ✷. Display will automatically return to cumulative run time after five seconds or press ✷ again.

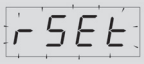
Hold mode

Press [▲▼] while the sample is running to place the pump and timer in Hold. Hold and cumulative run time will display alternately. Press [▲▼] while in Hold to continue the sample run.

Terminating a sample and resetting the pump

Press ✷ while in Hold. Sample Reset (rSEt) will flash on the LED.

- **To terminate the sample and reset the pump:** Press [▲▼].
- **To continue the sample run:** Press ✷ to return the display to Hold. Press [▲▼].



Sample

- *Allow the pump to equilibrate after moving it from one temperature extreme to another.*
- *Protect the sample pump from weather when in use outdoors.*
- *Do not operate or charge the pump in hazardous locations.*

Sampling train with cassette adapter and a spore trap cassette

1. Replace the representative sampling medium used for calibration with a fresh unexposed sampling medium. *See example of sampling train at right.*
2. Press ▲ or ▼ to scroll to a run time preset. *See Timed Run, Continuous Run, or Intermittent Sampling.*
3. Once the desired preset is displayed, press [▲▼] to start the pump running. Record sample start time.

To stop sampling and reset the pump, *see End Sample and Reset the Pump.*

Digital display: Sample run completed

4. When sampling is completed, perform the following actions depending on the run time mode:
   a. **Timed Run mode -** The display will count down to zero and the pump will stop. The alarm will beep four times. The display will flash donE. Press ✷ to return to presets. If a repeat sample is desired, press [▲▼].
   b. **Continuous Run mode -** The timer will count up to 999 minutes, automatically reset to zero, and count again to 999 minutes until user stops the pump. Press [▲▼] to place the pump in Hold when the desired sampling time has elapsed. HoLd and cumulative run time will flash alternately. Press ✷ while in Hold. Sample reset (rSEt) will appear on the LED. Press [▲▼] to terminate the cumulative run and reset the pump. If a repeat sample is desired, press [▲▼].
   c. **Intermittent Sampling mode -** The display will count up to set run time, count down from set delay time to 0, then run again. The pump will cycle until the programmed number of cycles are completed. The alarm will beep four times. The display will flash donE. Press [▲▼] to return to the run time preset. If a repeat sample is desired, press [▲▼].

Digital display: Pump and Timer in Hold

Digital display: Terminate sample and reset pump

5. Remove and seal the sample medium.
6. Reassemble the calibration train *(see Set/Calibrate Flow Rate)* and verify flow.
7. Send sample, blanks, and pertinent sampling information to a laboratory for analysis.

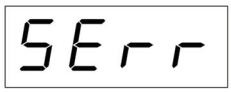
Digital display: Cumulative run time

End Sample and Reset the Pump

For timed and continuous runs: from a running pump, press [▲▼]. The pump is now in Hold. Press ✹ while in Hold. Sample reset (rSEt) will display. Press [▲▼] to zero the cumulative run time and reset the pump.

Digital display: Terminate sample and reset pump

For intermittent sampling, there is no Hold. Press [▲▼] to stop the pump. The LED will display SErr (sampling error). Press ✹ to view cumulative run time. Press [▲▼] to return to run time presets. ***Note:*** *Cumulative run time resets to 0 even if intermittent sampling is started again.*



Digital display: Sampling Error

Flow Fault
Manufacturer default: enabled. User may disable feature.
If the pump is not able to compensate due to excessive back pressure, a flashing FlOF will appear on the LED. If the fault is not corrected within five seconds, the pump will beep four times and stop running.

Restoring Sampling from a Flow Fault
Fault restart (manufacturer default: enabled)
Fault restart will attempt to restart the pump every 10 seconds up to five times. Cumulative run time can be displayed by pressing ✹. Press ✹ again to return to the fault (FlOF) display. If the pump does not automatically restart, attempt to correct the flow blockage, then press [▲▼] to place the pump in Hold. Press [▲▼] to resume sampling.

Digital display: Flow fault

Fault restart (user disabled)
Cumulative run time can be displayed by pressing ✹. Press ✹ again to return to the FlOF display. Attempt to correct flow blockage and press [▲▼] to place the pump in Hold. Press [▲▼] to resume sampling.

The flow fault and flow fault restart features can be enabled or disabled by the user as desired. ***See Advanced Operation, Enable/Disable Alarm and Fault Features.***

Advanced Operation

Intermittent Sampling (Setup and Sampling)

Intermittent Sampling mode allows the pump to be programmed to run for a specific number of minutes up to 999, to shut off for a programmed length of time, and to continue sampling on and off for a predetermined number of cycles. An example is programming the pump to run three cycles (n) of 15 minutes each (r) with a 5-minute delay (d) between each cycle.

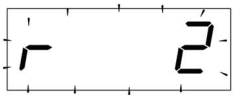
Enter Intermittent Sampling Mode

Press ▲ or ▼ to scroll to Intt. Press ✹ to enter the intermittent sampling setup mode.

Digital display: Intermittent Sampling

Set Run Time (r)

1. Press ▲ or ▼ to increase or decrease run time. The display will flash. If no change to run time is desired, press ✹ to move to delay time.
2. When finished, press ✹. Stor will flash on the display.
   To save the new setting: Press [▲▼]. Press ✹ to move to delay time setup.
   To ignore the new setting: Press ✹. Display will move to the delay time.

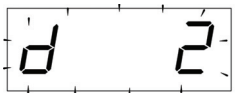


Digital display: Set run time

If displayed values are not changed, the flashing Stor will not appear and pressing ✹ will move the display to the next parameter to be set.

Set Delay Time (d)

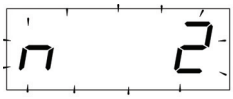
1. Press ▲ or ▼ to increase or decrease delay time. The display will flash. If no change to delay time is desired, press ✹ to move to number of cycles.
2. When finished, press ✹. Stor will flash on the display.
   To save the new setting: Press [▲▼]. Press ✹ to move to number of cycles setup.
   To ignore the new setting: Press ✹. Display will move to the number of cycles.



Digital display: Set delay time

Set the Number of Cycles (n)

1. Press ▲ or ▼ to increase or decrease the number of cycles. The display will flash. If no change to the number of cycles is desired, press ✹ to return to Intt.
2. When finished, press ✹. Stor will flash on the display.
   To save the new setting: Press [▲▼]. Press ✹ to return to Intt.
   To ignore the new setting: Press ✹. The LED will return to Intt.



Digital display: Set number of cycles

Sample

1. Press [▲▼]. The LED will count up to 59 seconds, then switch to minutes up to the set minutes run time. The pump will stop for the programmed number of delay minutes while the LED displays a count down from the set delay time to zero. The pump will start sampling again. The pump will beep four times and the display will flash donE after the desired cycles are completed.
2. Press ✹ to display cumulative run time.
3. Press ✹ to return to donE.
4. Press [▲▼] to return the display to the run time preset. If a repeat sample is desired, press [▲▼].

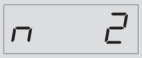
Digital display: Sample run completed

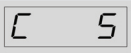
Intermittent sampling settings are retained when the pump goes to sleep.

User Options During Intermittent Sampling

Viewing number of cycles remaining and cumulative run time

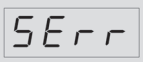
Press ✹ repeatedly while the sample or delay is running. If the unit is left untouched for 5 seconds, the display will automatically return to cumulative time.





Terminating a sample and resetting the pump

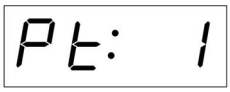
Hold is not available in Intermittent Sampling. Press [▲▼] to stop the sampling and the LED will display SErr (sampling error). Press ✹ to view cumulative run time. Press [▲▼] to return to run time presets.



Program Run Time Presets

1. Press ✹▲▼✹.
2. Pt: 1 will alternately display with t xx. This corresponds to the first stored preset time.
3. Press ▲ to scroll to the number of minutes (1 to 999). Press ▼ to scroll to Cont, Intt, or End mode options. *End will not appear as an option during setup of the first preset.*
4. When the LED displays the desired time or mode, press ✹ to move to the next preset time.
5. Repeat Steps 3 and 4 for each preset up to eight presets. The sequence will repeat from one to eight.
6. When finished, press [▲▼]. Stor will display on the LED.
   To save the new settings: Press [▲▼]. The pump will return to normal pump operation.
   To ignore the new settings: Press ✹. The pump will return to normal pump operation.

Note: *While programming presets, scrolling below Intt will display End after the first preset is selected. Choosing End will truncate the stored preset sequence (see below). For example, if the user wants to store only two presets, preset time 3 can be set to End, shortening the number of presets to scroll through. Times programmed for preset times Pt: 4 through 8 will not display until the presets are changed to make them display or the factory defaults are reset. See Reset Pump to Manufacturer Default Settings.*



Digital display: First preset

Digital Display: Time set for preset 1

Digital display: Store settings

Presets Sequence

Preset 8	End
Preset 7	Intt
Preset 6	Cont
Preset 5	t 15
Preset 4	t 10
Preset 3	t 5
Preset 2	t 2
Preset 1	t 1

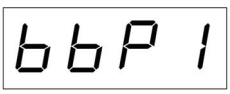
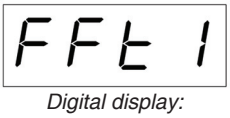
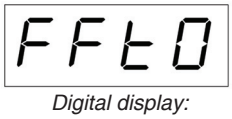
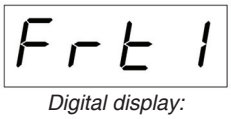
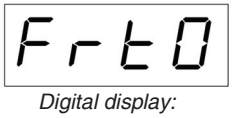
Manufacturer Default Presets

Preset 8	End
Preset 7	Intt
Preset 6	Cont
Preset 5	t 1 - 999
Preset 4	**End**
Preset 3	t 1 - 999
Preset 2	t 1 - 999
Preset 1	t 1 - 999

The pump returns to the beginning preset at the first End it encounters. This allows the user to shorten the number of presets to be scrolled through. ***Preset 1 cannot be set to End.***

Enable/Disable Alarm and Fault Features

1. Press the security code ✹▲▼✹ to enter setup mode.
2. Press the CAL button. The pump software version number will display briefly.
3. Press ▲ or ▼ to turn feature on or off *(see below)*. Press ✹ to advance to next feature.
4. Press [▲▼] to exit feature setup. Press [▲▼] again to return to run time presets.

Feature	ON	OFF
Button Beeper: On/Off	 *Digital display: Button beep on*	 *Digital display: Button beep off*
Alarm Beeper: On/Off	 *Digital display: Alarm beep on*	 *Digital display: Alarm beep off*
Flow Fault: On/Off	 *Digital display: Flow fault on*	 *Digital display: Flow fault off*
Flow Fault Restart: On/Off	 *Digital display: Flow restart on*	 *Digital display: Flow restart off*

Maintenance

Notes and Cautions

- The charge light on the LED will flash if the battery is charging during AC operation.
- The AC charger/adapter can be used to extend battery run time, but it is not a battery eliminator. Therefore, it will not provide indefinite run times.
- Do not operate or charge the pump in hazardous locations.
- Use only the SKC-approved battery and charger for this pump. Use of an unapproved battery and/or charger may damage the battery and the pump and voids any warranty.
- To reduce risk of injury, fire, or electric shock, always follow basic safety precautions when using this product.
- Do not submerge the pump or subject it to any liquids.
- Protect the sample pump from weather when in use outdoors.
- Tampering with the battery pack or using a repaired or rebuilt battery pack voids any warranty and UL Listing for intrinsic safety.
- Do not open, disassemble, short circuit, crush, incinerate, or expose the battery to fire or high temperatures.
- Failure to follow warnings or cautions voids any warranty.
- Keep the pump clean and free of dust and dirt. It may be wiped with a dry cloth.
- Keep the battery charged *(see Charge the Battery)*. Charge periodically when pump is not used for prolonged periods.

Change the Battery

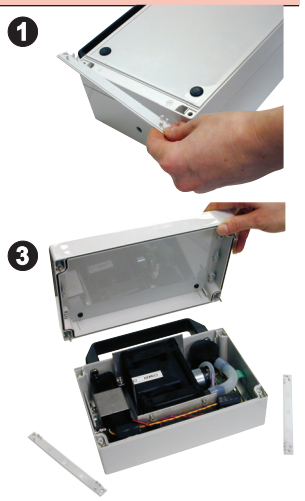
1. With the back of the pump facing you (serial number at bottom left), use a small flat-head screwdriver (tweaker) to pry up and remove two strip panels from the left and right ends of the back of the case. Remove the pressure-fit panels to reveal four safety screws.

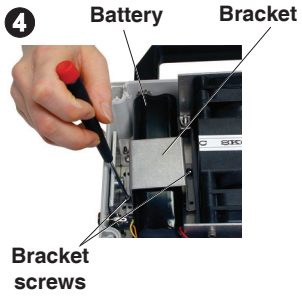
2. Use a Phillips head or flat-head screwdriver to loosen the four safety screws.

3. Lift off the back of the pump case.

4. Use a Phillips head screwdriver to loosen the two screws (with washers) from the battery bracket. Use forceps to remove the screws and washers from the case; set the screws aside.

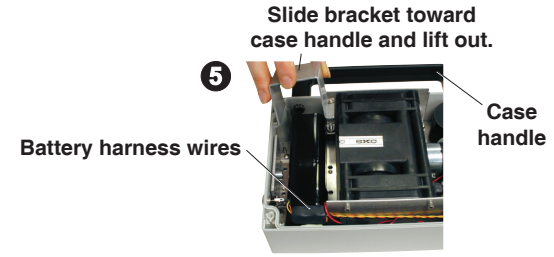
Do not lose washers.





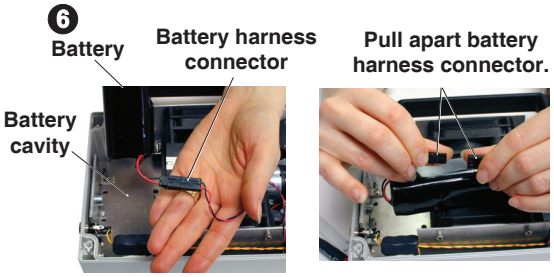
Maintenance (Cont)

5. Lift the bracket slightly, slide it toward the case handle, and lift it out of the case.



6. Detach the battery from the battery harness by pressing on the connector tab (left side of connector) and pulling both sides of the connector apart.

7. Using a full-size flat-head screwdriver, insert its tip **underneath the battery end nearest the case handle.** Maneuver the screwdriver to apply an upward force to the bottom of the battery until the double-sided tape adhesive on its bottom releases its hold and the battery can be lifted from the case.



8. Attach the new battery to the battery harness connector by aligning the two sides of the connector and pressing them together until they click.

9. Install the battery.

   a. If installing a new battery (Cat. No. P75689), remove the protective strip from double-sided mounting tape on the bottom of the new battery to expose adhesive.

   b. If reinstalling the existing battery, remove as much of the previous adhesive as possible from the bottom of the battery. Remove the protective strip from one side of a new two-inch piece of double-sided mounting tape (available from SKC as Cat. No. 51872) and apply to the bottom of the battery. Remove the protective strip from the tape's remaining side to expose adhesive.

Ensure the battery harness wires on battery pack are facing away from the case handle before inserting battery in case.

10. Align the battery in case (as shown above) before allowing the bottom of the battery to come into contact with and adhere to the pump base plate. Press down gently to ensure the battery pack adheres to the base plate.

11. From the case handle side of the pump, slide the battery bracket into place until two openings in the bracket are aligned with the two screw holes in the pump base plate.

12. Use needlenose pliers to align the two screws with washers with the screw holes. Tighten screws using a small flat-head screwdriver.

13. Replace the back of the pump case (serial number label should be in the lower left corner) and tighten the four safety screws.

14. Replace the two strip panels and press them down until they are completely installed.

Reset Pump to Manufacturer Default Settings

1. Press the security code ✹▲▼✹ and then press the CAL button. The pump software version number will display briefly.

Digital display: Pump default

2. Press ✹ repeatedly to scroll through until the LED displays dEFt.

3. Press [▲▼]. The word no will appear on the display.
   To reset to factory default settings: Press ✹. YES will appear on the display. Press [▲▼].
   To retain existing settings: Press ✹ to scroll to no and press [▲▼].

Digital display: Yes, reset to pump default

Digital display: No, do not reset to pump default

The number 30 will appear briefly, then the display will return to run time presets.

Accessories/Replacement Parts

Accessories		Cat. No.
Charger/Adapter, 100-240 V		**223-245**
Mounting Bracket for BioStage Impactor includes inlet adapter		**228-9531**
Rotameter, 3 to 30 L/min		**320-100**
Tygon Tubing, 3/8-inch ID	10 feet	**225-1351**
	50 feet	**225-1352**
High Flow chek-mate Calibrator, 5 to 30 L/min, includes a 9-volt alkaline battery		
with NIST standard traceable calibration certificate		**375-50300N**
with UK standard traceable calibration certificate		**375-50300**
with ISO standard traceable calibration certificate		**375-50300S**
Pulsation Dampener, *required for use with High Flow chek-mate Calibrator for calibration of high flow pumps*		**375-150**
Kit with High Flow chek-mate Calibrator and Pulsation Dampener Cat. No. 375-150		
with NIST standard traceable calibration certificate		**375-50300-KN**
with ISO standard traceable calibration certificate		**375-50300-KNS**

Replacement Parts	Cat. No.
Replacement Inlet Filters, pk/50	**P40021A**
Stem Tubing Adapter, pk/2	**P31239**
Cassette Adapter	**P33100**
Reducing Adapter for Tubing, 3/8 inch to 1/4 inch, pk/2	**P31211**
Replacement Battery Pack,* Li-Ion	**P75689**
Replacement Stack for QuickTake 30	**P21266**

* *Pump contains Li-Ion battery and may be subject to special shipping regulations.*

Any warranty is void if pumps are not repaired by SKC or authorized SKC repair centers. Use only SKC-approved parts to ensure reliable performance. Failure to do so voids any warranty.

Use of a repaired or rebuilt battery pack voids any warranty.

Li-Ion Battery Testing and 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 Tests and Criteria, Part III, subsection 38.3. The batteries are rated below 100 watt-hours (Wh).

Consult with your carrier for more information on Lithium Battery Shipping Regulations UN 3480 and UN 3481 or visit SKC's website for more information at www.skcinc.com/knowledgecenter.

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 skcinc.com/warranty.

Appendix

Performance Profile

<table>
<tr><td>Flow Range</td><td>10 to 30 L/min</td></tr>
<tr><td>Flow Compensation Accuracy</td><td>± 5% of set flow</td></tr>
<tr><td>Compensating Flow Back Pressure Range</td><td>10 L/min at 90 inches water back pressure
20 L/min at 50 inches water back pressure
30 L/min at 15 inches water back pressure</td></tr>
<tr><td>Typical Back Pressure of Sampling Media
(inches water)</td><td>
<table>
<tr><th>Flow Rate (L/min)</th><th>10</th><th>12</th><th>15</th><th>20</th></tr>
<tr><th>Filter/Pore Size (µm)</th><th></th><th></th><th></th><th></th></tr>
<tr><td>25-mm MCE, 0.8</td><td>65</td><td>80</td><td>103</td><td>148</td></tr>
<tr><td>25-mm MCE, 0.45</td><td>138</td><td>172</td><td>> 200</td><td>—</td></tr>
<tr><td>37-mm MCE, 0.8</td><td>22</td><td>28</td><td>36</td><td>51</td></tr>
<tr><td>37-mm PVC, 5.0</td><td>9</td><td>11</td><td>15</td><td>21</td></tr>
</table>
Compare the information in this table to pump compensation range to determine appropriate applications.</td></tr>
<tr><td>Flow Fault Features</td><td>If the pump is unable to compensate due to excessive back pressure, the pump will go into flow fault mode (see Flow Fault). Flow fault features are enabled as the default setting. Flow fault may be disabled at the user's option. See Advanced Operation.

Flow fault: Flow fault displays immediately
Pump shuts off after 5 sec

Fault restart: Pump attempts restart every 10 sec up to five times</td></tr>
<tr><td>Tubing</td><td>Requires 3/8-in ID tubing</td></tr>
<tr><td>Run Time Features</td><td>User-selectable features, user-adjustable presets. See Advanced Operation.
Preset timed runs: 1, 2, 5, 10, or 15 min
Manually set continuous run with manual shut-off: 1 to 999 min (repeats 1 to 999-min runs indefinitely until user stops pump or power supply is depleted)
Intermittent sampling: See Advanced Operation.</td></tr>
<tr><td>Media Compatibility</td><td>Viable cascade impactors, spore trap cassettes (e.g., VersaTrap), asbestos cassettes, microvacuum cassettes, and other impaction samplers that require flows from 10 to 30 L/min</td></tr>
<tr><td>Operating Temperature</td><td>32 to 104 F (0 to 40 C)</td></tr>
<tr><td>Operating Humidity</td><td>0 to 95% non-condensing</td></tr>
<tr><td>Typical Cumulative Run Time†</td><td>• Spore Trap* (e.g., VersaTrap): 5 hrs at 15 L/min (battery only)
• BioStage viable cascade impactor: 4 hrs at 28.3 L/min (battery only)
• 25-mm, 1.2-µm MCE filter: 9+ hrs at 10 L/min
To achieve, use QuickTake 30 with a fully charged battery and AC charger/adapter.
• 37-mm, 0.8-µm MCE filter: > 14 hrs at 10 L/min (battery only)

* Sampling times when using spore traps are usually ≤ 10 min. SKC recommends reducing length of sample time when using a 30 L/min flow rate to prevent overloading the media.
† Results obtained using a new pump and new fully charged batteries. Pump and battery performance may vary.

The AC charger/adapter can be used to extend battery run time, but it is not a battery eliminator. Therefore, it will not provide indefinite run times.</td></tr>
<tr><td>Storage Temperature</td><td>-4 to 95 F (-20 to 35 C)</td></tr>
<tr><td>Noise Level</td><td>Average < 64 dBA at 3 ft (using 37-mm 0.8-um MCE filter at 16.8 L/min)</td></tr>
<tr><td>Power</td><td>• Rechargeable lithium-ion (Li-Ion) battery, 7.4 V, 10.4-Ah capacity, 77 Wh
• Battery with AC charger/adapter, 100-240 V</td></tr>
<tr><td>Battery Recharge Time
(varies with battery capacity and level of discharge)</td><td>Approximately 5 hrs</td></tr>
<tr><td>Charging Temperature</td><td>32 to 113 F (0 to 45 C)</td></tr>
<tr><td>Dimensions</td><td>9.3 x 8.4 x 3.5 in (23.6 x 21.3 x 8.9 cm)</td></tr>
<tr><td>Weight</td><td>4.8 lbs (2.2 kg)</td></tr>
<tr><td>Housing</td><td>ABS plastic</td></tr>
</table>