

Smart, Flexible Charging System for SKC Personal Sample Pumps

# + Patented<sup>‡</sup> reflex charging technology

- Does not promote memory
- Saves time no discharging required
- Improves battery life by maintaining a low internal temperature and pressure
- Same technology as used on the NASA space shuttle

#### + Smart system

- Continuously monitors charging voltage and automatically switches to trickle mode at full charge
- Uses an advanced technique to prevent damage to batteries from overcharging and high temperatures

#### + Fast

- Average recharge time for SKC pumps is 6 to 8.5 hours

#### + Maintains charge safely

 Pulse-type trickle keeps battery fully charged and ready for use without damage

### + One charger for most SKC personal sample pumps

- Charge different models simultaneously on the 5-station PowerFlex
- Use with AirChek® 2000, AirChek 52 and Universal XR Series\*
- Ideal for NiCad and NiMH batteries

## + Small, lightweight, and portable

- Five-station charger weighs only 1.1 lbs (0.5 kg)
- Single-station charger weighs only 4 oz (0.1 kg)

#### + CE marked

# One Charger Does It All!

Only the advanced PowerFlex® battery charging system can provide flexibility in charging your fleet of SKC personal air sample pumps. There is no need to carry multiple chargers for multiple pumps. PowerFlex can be used to charge NiCad and NiMH battery packs for most SKC personal sample pumps (excluding EX and ATEX-approved models and models containing lithium-ion [Li-Ion] batteries). Charge different pump models simultaneously on the PowerFlex five-station charger.

# The PowerFlex Advantage

**With reflex charging technology,** PowerFlex applies short reverse (discharge) pulses in between charge pulses to ease the battery into a full charge and to keep temperature and pressure build-up inside the battery to a minimum. PowerFlex detects full charge **before** the battery starts into overcharge and switches immediately to a pulse trickle charge. Reflex charging minimizes battery damage and maximizes battery life.

**Time saving and cost effective:** One charger for most SKC personal pump models with NiCad or NiMH battery saves time, money, and storage space. Charge different pump models simultaneously on the five-station PowerFlex.

\* For U.S.-produced pump models only. Not compatible with EX and ATEX- approved models.





# **PowerFlex**

## Smart, Flexible Charging System for SKC Personal Sample Pumps

SKC PowerFlex is an advanced battery charging system designed for optimal charging and performance of the nickel-cadmium (NiCad) and nickel metal hydride (NiMH) batteries used in SKC personal sample pumps. The five-station PowerFlex can charge different SKC pump models simultaneously.

# Using PowerFlex

Pump-specific cables are used to connect battery packs to the PowerFlex. Simply plug the appropriate cable into a PowerFlex port and plug the other end into the appropriate pump charging jack. An LED indicates charge mode. PowerFlex charges most battery packs within six hours and automatically switches to a safe pulse trickle charge when full charge is detected. Each attached battery pack runs through an independent charge cycle. Battery packs can be charged either attached to or detached from the pump.



Five-station PowerFlex charging the AirChek 52 and Universal PCXR8

# About Charging NiCad/NiMH Batteries

Charging NiCad/NiMH batteries is generally accomplished by applying constant current to the battery. Towards the end of the charge cycle, battery voltage rises at an increasing rate, tapers, and finally becomes negative. Most chargers sense this voltage depression and either turn off or switch to a trickle charge.

SKC PowerFlex Chargers use a different technology. Reflex charging<sup>‡</sup> delivers pulses of current instead of constant current to charge batteries. In between pulses of charging current, PowerFlex applies short reverse pulses that discharge the battery slightly and short pauses. This eases the battery into a full and uniform charge and helps to prevent dramatic increases in internal temperature and pressure that can damage the battery and shorten its life. To prevent overcharging, PowerFlex continuously monitors the charging voltage curve to find the inflection point, then it quickly and automatically switches to a safe pulsing trickle charge.

For more information on SKC pump batteries, go to <a href="mailto:skcinc.com/knowledgecenter">skcinc.com/knowledgecenter</a>, search on "Battery Pack".

‡ Patented by Galaxy Power, Inc.

## Performance Profile

**Dimensions:** Five-station:  $4.4 \times 5.5 \times 1.4$  in

(11.1 x 14 x 3.5 cm)

Single-station: 1.2 x 2.3 x 4.6 in

 $(3 \times 5.8 \times 11.7 \text{ cm})$ 

**Weight:** Five-station: 1.1 lbs (0.5 kg)

Single-station: 4 oz (0.1 kg)

**Status LEDs:** Steady red = Charging

Steady green = Trickle charge

**Compatibility:** For use with U.S.-produced pump models

only: Universal XR Series Pumps (4 and 5 cell), AirChek 2000, and AirChek 52 pumps. Not compatible with EX and ATEX-approved

models.

**Charging Time:** 6 to 8.5 hrs. *Typical charging times vary* 

with model, battery capacity, and level of

discharge.

**Approvals:** Power supply is c(UL) us usted for electrical

safety and is CE marked. PowerFlex is **not** intended for use in hazardous locations.

## **Ordering Information**

# PowerFlex Charging Systems Cat. No.

### PowerFlex 5-station\*

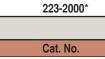
Includes power supply and cord. Purchase pumpspecific cables separately; choose from the list below.

100-240 V 223-1000\*

#### PowerFlex Single\*

Includes power supply. Purchase pump-specific cables separately; choose from the list below.

100-240 V 22



Accessory	Cat. No.
Nylon Carry Case, for 5-station PowerFlex, includes	
padded shoulder strap and compartment for cables	224-903
padded shoulder strap and compartment for cables	224-903

## PowerFlex Cables

Pump-specific Cables*	Cat. No.	Qty.
AirChek 2000	223-1001	1
Universal XR Series (5 cell)	223-1002	1
Universal XR Series (4 cell, MSHA)	223-1003	1
AirChek 52	223-1004	1

 $<sup>^\</sup>star$  For U.S.-produced pump models only. Not compatible with EX and ATEX- approved models.

