



## Span Chek™ 8700 Portable Calibrator

### Span Chek™

The Span Check™ 8700 (or SC8700) is a portable permeation system designed for field calibration of toxic gas analyzers, area gas monitors, and gas detectors or sensors. The unit may be used with passive sensors as well as instruments that have a built-in sample pump. Interchangeable permeation tubes are used to provide a stable output of toxic gas which is mixed with a larger controlled flow of filtered ambient air to form a gas mixture. Accurate concentrations of gas standard mixtures can be generated to “verify” or calibrate devices throughout the plant or facility.

The SC8700 can produce trace gas concentrations from <1 ppm to 100 ppm (depending on permeation tube selection). Concentrations are varied by adjusting the ambient air pump rate, the permeation oven temperature, or the number or type of permeation tubes used. The instrument can be used with a variety of compounds by installing the appropriate permeation tubes.

### Operation

The Span Chek™ 8700 is self-contained, portable, and equipped with a long-lasting rechargeable battery. Dilution gas air is provided by a small internal compressor. Ambient air is drawn into the unit and purified by passing through a chemical cartridge type filter. Filtered air sweeps through the vertical glass bottle and across the permeation tube to dilute the pure chemical gas emitting from the tube. Precise trace gas concentration mixtures can be made. Variations in flow volume provides dilution capabilities that create a range of output concentrations.

The permeation tube oven temperature is controlled by a PID controller that provides a temperature range from 5 °C above ambient to 50 °C. The output flow of the SC8700 is connected directly to an analyzer, placed over a sensing head, or exposed to a passive detector. The calibration mixture simulates real samples in all respects including relative humidity and oxygen content of the ambient air source. An exhaust filter scrubs vent exhaust until safe removal of permeation tubes and storage of the device.

The Span Check™ 8700 is an economical and safe alternative to using gas cylinders.

### Features

- Calibration for the following gases:
  - Hydrogen sulfide
  - Sulfur dioxide
  - Methyl mercaptan
  - Chloride
  - Hydrogen cyanide
  - Hydrogen fluoride
  - Ammonia
  - Ethylene oxide
  - Nitrogen dioxide
  - And others
- Internal compressor – provides dilution air
- Rechargeable, long life battery – for over 8 hours of continuous operation
- Intake filter – cleans ambient air
- Exhaust filter – scrubs vent exhaust

## Specifications

- Concentration Range: 1 – 100 ppm
- Oven Capacity:
  - 3/16" diameter type SRT tube up to 5 tubes
  - 1/4" diameter type SRT-2 or HRT tube up to 4 tubes
  - Maximum internal diameter 3/4"
  - Maximum overall length 15 cm
- Output Flow: 500 – 1500 cc/min
- Operating Temperature:
  - 35 °C to 50 °C (Controlled by PID Controller)
- Battery Pack: 12 VDC, Rechargeable
- Power: Approximately 5 watts, with 15 watt peak.
  - Can operate from internal battery, external battery, or external battery charger/power supply.
- Dimension: 11" W x 14" H x 4 1/2" D
- Weight: 11.5 lbs.

## Benefits

### SAFETY

- No high pressure cylinders required
- Removes risk of exposure

### REPEATABLE

- Drift-free output
- Can calibrate all sensors to the same standard

### EASY TO USE

- Set the air flow – no other adjustments required
- Operates over 8 hours without recharging

### ECONOMICAL

- No false results
- Reduces the time required for calibration
- One permeation tube can do hundreds of calibration checks

KIN-TEK Analytical, Inc.  
504 Laurel St., La Marque, Tx 77568 USA  
Ph. 409-938-3627 • 1-800-326-3627  
Fax: 409-938-3710  
[sales@kin-tek.com](mailto:sales@kin-tek.com)

To learn more about KIN-TEK visit [www.kin-tek.com](http://www.kin-tek.com)



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