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Pneumatic Test Kit

Operating Instructions



This manual covers the following model:

224-6580

Thank you for choosing an SKC product. Your purchase is covered by our warranty, details of which can be found inside the rear cover of this manual.

Product Model Number	Product Serial Number	Date of Purchase
224-6580		

SKC recommends annual servicing of this product. The first service is due one year from the date of purchase, and then at yearly intervals on this date.

Service	Date	Service	Date	Service	Date
1		5		9	
2		6		10	
3		7		11	
4		8		12	

Please note that SKC Ltd are the only authorised service centre in the UK, guaranteeing you access to the full range of genuine SKC replacement parts. For all other areas a full list of SKC approved distributors and service centres can be found at www.skcltd.com

SKC UK service centre - Tel: +44 (0)1258 480188 Fax: +44 (0)1258 480184 Email: info@skcltd.com

Size	.190mm x 353mm x 120mm (W x H x D)
Weight	.2.60 kg
Flow Range	.600 to 5,000 ml/min
Flow Accuracy	.5% of full scale
Flow Scale Standardization	Air at 20 °C and 1013.25 mbar absolute.
Back Pressure Range	.0 to 80 inches H_2^0
Back Pressure Accuracy	.2% of full scale



Reading the Flow Meter

A float type rotameter (variable area) flow meter is fitted to the pneumatic test kit. The correct point on the float to take the flow reading is at the top edge of the float, as shown.

Also ensure that the float is viewed directly from the side, as shown. Taking the reading looking down on the float will add inaccuracy to the measurement.

General Instructions

- 1. Ensure that the pneumatic test kit is mounted on a stable, level surface. Check that the back pressure gauge reads zero, and adjust using the zero adjust screw if required.
- 2. Ensure that the sample pump battery is fully charged. Run the sample pump for five to ten minutes prior to carrying out pump compensation or sample media back pressure checks.

Sample Pump Compensation Verification

Refer to the sample pump instruction manual or SKC Ltd for pump compensation specification.

- 1. Connect the inlet hosetail of the pump to the pump connection hosetail on the pneumatic test kit using a length of flexible tubing.
- 2. Ensure that the back pressure bypass valve is in the bypass (down) position.
- 3. Turn on the sample pump and set the desired flow rate as detailed in the pump instruction manual. Note the reading on the pneumatic test kit flow meter.



- 4. Set the back pressure bypass valve to the up position, and adjust the back pressure reading on the back pressure gauge, to the required value for the flow rate.
- 5. Note the reading on the flow meter. The flow reading with back pressure applied should generally be within 5% of the reading with no back pressure refer to the sample pump compensation specification.
- 6. Set the back pressure bypass valve to the bypass (down) position. Repeat this process at other flow rates if required.
- 7. At low flow rates and zero back pressure the flow pulsation created by the sample pump can make it difficult to take an accurate flow reading. This can be resolved by using the back pressure adjuster valve to apply a small back pressure of 2 4 inches H₂O, setting the required flow rate, then increasing the back pressure to the required level.

Sample Media Back Pressure Check

- 1. Connect the inlet hosetail of the pump to the pump connection hosetail on the pneumatic test kit using a length of flexible tubing.
- 2. Place the sample media into the sample head and connect the sample head outlet to the air inlet connection hosetail on the pneumatic test kit.
- 3. Ensure that the back pressure bypass valve is in the bypass (down) position.
- 4. Turn on the sample pump and set the desired flow rate as detailed in the pump instruction manual. Note the reading on the pneumatic test kit flow meter.
- 5. Note the reading on the back pressure gauge. A high sample media back pressure compared with the pump performance specification, could indicate potential problems during a sample run, such as reduced run times and the potential for flow faults. Either use a higher specification pump or a less restrictive sample media for the application.

Limited One Year Warranty

1. SKC warrants that this instrument, and each of its component parts, provided for occupational health and safety and environmental applications is free from defects in workmanship and materials under normal use for a period of one (1) year. This warranty DOES NOT cover any claims due to abuse, misuse, neglect, alteration, or accident, or use in application for which the instrument was either not designed or not approved by SKC, or, due to the buyer's failure to maintain normal maintenance, improper selection or misapplication. The warranty also DOES NOT cover any claims due to the use of a non-SKC approved charger to charge the battery pack. This warranty shall further be void if changes or adjustments to the instrument are made by a person other than an employee of the seller or, if the operating instructions furnished at the time of installation are not complied with.

2. SKC hereby expressly disclaims all warranties either expressed or implied, including any implied warranties of merchantability or fitness for a particular purpose and neither assumes nor authorises any person to assume for it any liability in connection with the sale of these instruments. No description of the goods being sold has been made a part of the basis of the bargain or has created or amounted to an express warranty that the goods will conform to any such description. Buyer shall not be entitled to recover from SKC any consequential damages; damages to property, damages for loss of use, loss of time, loss of profits or income or any other incidental damages. Nor shall the Buyer be entitled to recover from SKC any consequential damages resulting from defect of the instrument.

3. This warranty extends only to the original purchaser of the warranted instrument during the term of the warranty, the buyer may be required to present proof of purchase in the form of a paid receipt for the instrument.

4. In the event of a defect, malfunction, or other failure of the instrument not caused by any misuse or damage to the instrument while in the possession of the Buyer, SKC will remedy the failure or defect

without charge to the buyer. The remedy will consist of service or replacement of the instrument, or refund of the purchase price, at the option of SKC. However, SKC will not elect refund unless it is unable to provide replacement and repair is not commercially practicable.

5. The terms of this warranty begin on the date the instrument is delivered to the Buyer and continue for a period of one (1) year.

6(a) To obtain performance of any obligation under this warranty, the buyer shall return the instrument, freight prepaid to SKC at the following address:-

SKC Limited

11 Sunrise Park

Higher Shaftesbury Road

Blandford Forum

Dorset DT11 8ST

t: 44 (0) 1258 480188

f: 44 (0) 1258 480184

6(b) To obtain further information on the warranty performance contact SKC.

7. This warranty is provided under English law.

8. No other warranty is given by SKC in conjunction with this sale.

The disclaimers and limitations shall not affect the statutory rights of a consumer.



Air Sampling Solutions & Expertise

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