

# CARDIOVIT AT-104 PC Ergo-Spirometry



Perfect Ergo-Spirometry

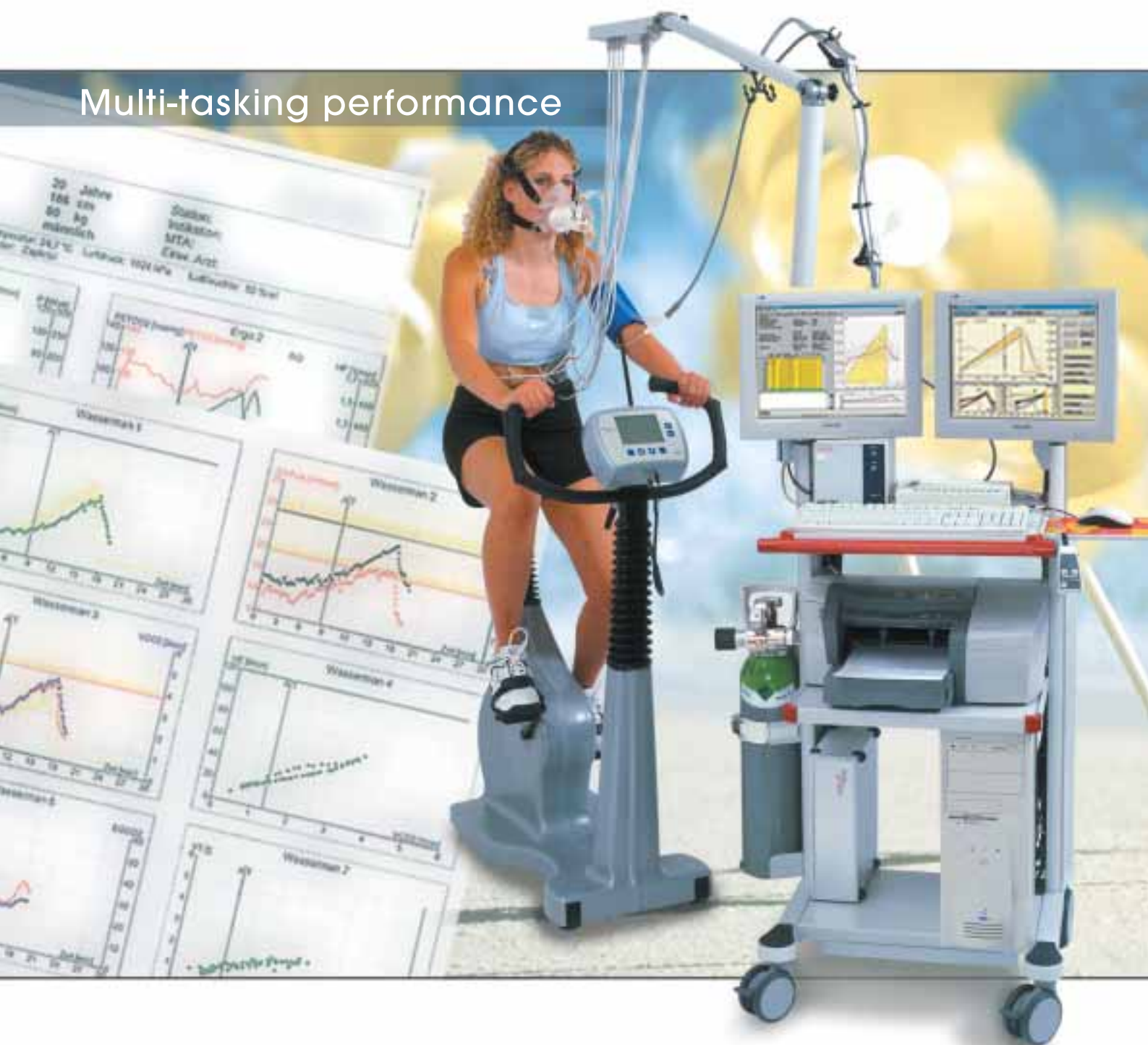


**SCHILLER**

[www.schiller.ch](http://www.schiller.ch)

The Art of Diagnostics

## Multi-tasking performance



### Multiple use – multiple benefits

The CARDIOVIT AT-104 PC ECG Recorder and Workstation has been completed by high-performance Ergo-Spirometry analysis functions.

This multi-functional diagnostic workstation is now unifying all major cardio-pulmonary functions within one single device, with an excellent price/performance ratio, featuring:

- Double flat screen system:
  - 1 screen for cardiology
  - 1 screen for pneumology
- High performance in Exercise ECG testings
- High quality Wasserman graphics
- Comfortable mask system
- O<sub>2</sub>/CO<sub>2</sub>-Gas analyzer/spirometer
- Easy to use
- Fully data-compatible digital recordings

### Breath-by-breath analysis!

Every breath and every heartbeat is analyzed according to the individually set parameters and shown on the monitors in real time. With its two separate monitors, the CARDIOVIT AT-104 PC Ergo-Spiro allows direct visual comparison of ergospirometrical and ECG data! Various interfaces guarantee perfect data-transfer of the saved values to Patient Data Management Systems (PDMS).



## Technical Data:

### Technical Description Gas Analyzer:

**Measurements:** 15 x 15 x 15 cm (l x h x w)

**Weight:** 2.35 kg

**Power supply:** 100 – 240 V, 50/60 Hz

**Safety Class:** VDE II, safety insulated, IEC 60601-1, Class BF

### Measurement Methods:

**Breath-by-breath gas analysis**

**Flow volume processing according to ECCS or ATS**

**Amount of gas adjusted with STPD.**

**Environmental sensors:**

- Temperature: 0 to 50° C

- Barometer pressure: 600 to 1050 mBar

(measurement range: -100m to 3500m above sea level)

**Flow measurement (patented diaphragm spiropceptor):**

Flow sensor insensitive to moisture

Measurement range 0 to  $\pm 17$  l/sec., max. deviation  $\pm 2.5$  %,

volume range 0 to 300 l, resolution 10 ml/sec.

**Gas analyzer**

**O<sub>2</sub> chemical cell:**

Measurement range: 0 to 100 % O<sub>2</sub>

Measurement accuracy: Better than  $\pm 0.1$  %

Response time: < 80 msec. (10 to 90 %)

**Ultra sound density method analyzer CO<sub>2</sub>:**

Measurement range: 0 to 17.5 % CO<sub>2</sub>

Measurement accuracy: Better than  $\pm 0.1$  %

Response time: < 80 msec. (10 to 90 %)

**Fully automatic zero alignment and calibration of the gas analyzers at minimal gas consumption**

**Automatic measurement of ambient conditions**

**Manual entry of blood gas values (lactate etc.)**

### Software:

**Operation system:** Windows™ XP

**Parameters:** METS, VT, VE, fR, VO<sub>2</sub>, VCO<sub>2</sub>, RER, VE/V, VO<sub>2</sub>, VCO<sub>2</sub>-equivalents, O<sub>2</sub>-pulse, VD/VT, FEO<sub>2</sub>, FECO<sub>2</sub> as well as secondary parameters

**Automatic determination of the anaerobic threshold after V-slope, CO<sub>2</sub> excess or RQ=1**

**Scaling optimization for the diagrams**

**Editing possibility for all basic parameters**

**Export/import function with standardized protocols for integration into HIS**

**Technical data of CARDIOVIT AT-104 PC:**

See specific brochure

### Operating Conditions:

**Ambient temperature:** Between 10 and 40° C

**Relative humidity:** Between 30 and 90 %

**Atmospheric pressure:** Between 900 and 1060 hPa

All technical data is subject to changes aiming to continued innovations. The PowerCube produced by Ganshorn Medizin Electronic GmbH, Niederlauer, Germany, has been integrated into the CARDIOVIT AT-104 PC Ergo-Spiro device. It fully complies with SCHILLER's view on quality.

## More comfort with more benefits

- Simultaneous presentation of all cardio-pulmonary parameters and graphs on two monitors
- Real breath-by-breath gas determination of metabolic and hemodynamic parameters during resting and exercise tests
- Bi-directional flow sensor insensitive to moisture
- Limit monitoring of any parameter with alarm functions
- Automatic control of ergometer using configurable profiles
- Economical, as all accessories are sterilizable and reusable
- Integrated interpretation program according to Karlman Wasserman
- Free combination of parameters and graphs for individual result protocols
- Network ability of CARDIOVIT AT-104 PC Ergo-Spiro



Your specialist:



**T h e   A r t   o f   D i a g n o s t i c s**

**Asia**  
**SCHILLER Asia-Pacific**  
 10 C, Jalan SS 3/33  
 Taman Universiti  
 47300 Petaling Jaya  
 Selangor, Malaysia  
 Phone +603 78 77 5336  
 Fax +603 78 77 5744  
 sales@schiller.com.my

**Austria**  
**SCHILLER Handelsgesellschaft mbH**  
 Kampmüllerweg 24  
 A-4040 Linz  
 Phone +43 732 70 99-0  
 Fax +43 732 757 000  
 sales@schiller.at

**C.I.S. & Russia**  
**SCHILLER AG**  
**Moscow Representative Office**  
 Office 414, 1-st Yamskogo Polya 15  
 125124 Moscow, Russia  
 Phone/Fax  
 +7 (095) 970 11 33,  
 +7 (095) 956 29 10  
 mail@schiller-ag.com  
 www.schiller-cis.com

**France**  
**SCHILLER Médical S.A.S.**  
 4, rue Louis Pasteur  
 F-67162 Wissembourg/Cedex  
 Phone +33 3 88 63 36 00  
 Fax +33 3 88 94 12 82  
 info@schiller.fr

**Germany**  
**SCHILLER Medizintechnik GmbH**  
 Rudolf-Diesel-Strasse 14  
 D-85521 Ottobrunn  
 Phone +49 89 62 99 81-0  
 Fax +49 89 609 50 90  
 info@schillermed.de

**India**  
**SCHILLER Healthcare India Pvt. Ltd.**  
 D.C. Silk Mills Compound, 'A' Wing,  
 1st floor  
 5, Chunawala Estate, Kondivitta Lane  
 Andheri-Kurla Road, Andheri (E)  
 Mumbai - 400 059, India  
 Phone +91 22 826 35 20  
 Fax +91 22 826 35 25  
 schiller@vsnl.com

**Spain**  
**SCHILLER ESPAÑA, S.A.**  
 Avenida Baviera, 12 - 14 Posterior  
 E-28028 Madrid  
 Phone +34 91 713 01 76  
 Fax +34 91 355 79 33  
 schiller@schiller-es.com

**Switzerland**  
**SCHILLER-Reomed AG**  
 Riedstrasse 14  
 CH-8953 Dietikon  
 Phone +41 1 744 30 00  
 Fax +41 1 740 37 10  
 sales@schiller-reomed.ch

**Turkey**  
**SCHILLER TÜRKIYE**  
 Halil Rifat Pasa Mah.  
 Darülaceze Cadd.  
 Perpa Ticaret Merkezi  
 B/Blok No: 41 K: 2  
 Okmeydanı-Sisli - İstanbul  
 Phone +90 212 210 8681 (pbx)  
 Fax +90 212 210 8684  
 sales@schiller-turkiye.com

**USA**  
**SCHILLER America Inc.**  
 11300 NW 41st Street  
 Miami, Florida 33178  
 Phone +1 786 845 06 20  
 Fax +1 786 845 06 02  
 sales@schilleramerica.com

# SCHILLER

w w w . s c h i l l e r . c h