

# CARDIOVIT CS-200 EXCELLENCE ERGOSPIRO

The Art of Cardiopulmonary Exercise Diagnostics



**SCHILLER**  
The Art of Diagnostics

# CARDIOVIT

## CS-200 EXCELLENCE ERGOSPIRO

Research-grade Cardio-pulmonary Exercise Testing device for clinical and sport applications

SCHILLER introduces the new generation of ErgoSpiro systems (Cardiopulmonary Exercise Testing), the result of over 30 years of experience in the development of ErgoSpiro devices.

It's not often that a new system is introduced in the Cardiopulmonary Exercise Testing industry. In today's market, a medical system cannot just look nice, it has to be able to improve patient care with intuitive, easy-to-use technology, optimized by functional design.

The CARDIOVIT CS-200 Excellence ErgoSpiro system can perform both pulmonary function tests (PFT) according to the latest ATS/ERS guidelines and metabolic tests with diagnostic-quality 12- or 16-lead Exercise ECG conveniently and accurately in a single device, with absolutely none of the compromises sometimes found in combined systems.

### FIELDS OF APPLICATION

In recent years, cardiopulmonary exercise testing has become an increasingly important tool and has established itself as a valuable differential diagnosis in the fields of:

#### RESPIRATORY MEDICINE

- Obstructive and restrictive ventilatory disorders
- Pre-operative risk assessment for lung transplant patients

#### INTENSIVE CARE

- Pre-operative risk assessment
- Nutrition control (adjusting parenteral nutrition of intensive care patients)

#### CARDIOLOGY

- Heart disease, valvular heart failure
- Pre-operative risk assessment for heart transplant patients

#### REHABILITATION

- Optimizing rehabilitative measures
- Assessing and documenting rehabilitative and therapeutic progress

#### SPORTS MEDICINE / SCIENCE

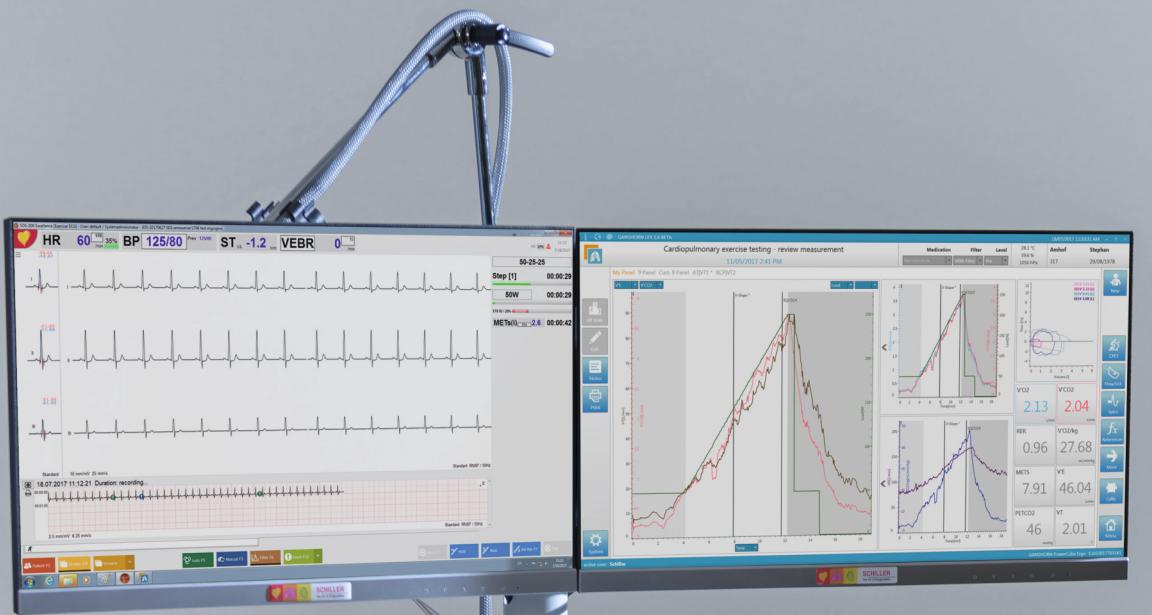
- Measurement of physical exercise capacity
- Quantification of training success

#### NUTRITION

- Energy expenditure during exercise
- Dietary advice

#### OCCUPATIONAL MEDICINE

- Determining the degree of disability or work limitation/inability
- Fitness check-ups



# RESEARCH-GRADE CARDIOPULMONARY EXERCISE TESTING

The CARDIOVIT CS-200 Excellence ErgoSpiro advances its remarkable legacy of leadership, with powerful new analysis and diagnostic tools. The new productivity-enhancing applications are easier to use, and innovative networking solutions are now available. Leadership technology designed to help you make better clinical decisions and more confident diagnoses.

## CARDIOLOGY

- ❖ Integrated 12-lead Exercise ECG with full disclosure and scroll back options during Exercise test
- ❖ HyperQ (high-frequency QRS signal analysis) enables increased accuracy in detecting coronary artery disease in women and men and adds confidence in identifying the most appropriate treatment (Optional)
- ❖ SCHILLER ETM ECG analysis program with measurement and interpretation
- ❖ Duke Treadmill Score assists you in predicting patients at risk of sudden cardiac death
- ❖ SAEKG (Optional-Signal Averaged ECG)
- ❖ Vector 3D ECG (Optional- Vector ECG gives a 3-dimensional view on the electrical activity)
- ❖ Sophisticated 16-lead ECG acquisition and analysis for Resting and Exercise ECG (Optional)
- ❖ Protocol Editor program for creating individual protocols
- ❖ Unique dynamic protocol selection according to VSAQ nomogram (Veterans Specific Activity Questionnaire)
- ❖ EMR & HIS integration through Schiller server (Optional)
- ❖ Automatic arrhythmia detection and classification
- ❖ Automatic NIBP measurement through BP-200 Plus (Optional)

## RESPIRATORY

- ❖ True breath-by-breath ErgoSpiro Testing
- ❖ Easy-to-use, beautifully designed user interface with intuitive workflow
- ❖ Customize your panel during cardiopulmonary exercise testing or review
- ❖ Display data and charts through standard 9-panel plot (4th Edition or 5th Edition Wasserman Graph etc.) or define your own 9-Panel Graph
- ❖ Real time acquisition and capturing of dynamic Flow-Volume for End Expiratory Volume Loops (EEVL) evaluation of ventilatory limitation
- ❖ Automatical AT and RCP detection at the end of each test
- ❖ Powerful post-test editing phase for data filtering, calculation of multiple thresholds VT1, VT2....., VO<sub>2</sub> max and other parameters
- ❖ Multiple ventilatory threshold-detection analysis with 7 different threshold determinations
- ❖ 4 different automatic slope calculation (VO<sub>2</sub>/Load, VE/VCO<sub>2</sub>, HR/VO<sub>2</sub>/KG, OUES)
- ❖ Easy, quick and fully assisted calibration for high accuracy measurements
- ❖ Slow/Forced Spirometry in rest including Pre/Post testing and animation program
- ❖ Export data in .pdf format
- ❖ Online entry of blood gases and events or just set a marker for later data entry
- ❖ Online SpO<sub>2</sub> measurement facility (Optional)

## THE HEART OF THE SYSTEM

The heart of the system consists of the highly accurate and proven PowerCube-Ergo and the Volume Pneumotach.



### PNEUMOTACH FOR SIMPLICITY AND ACCURACY

The proven Pneumotach meets the ATS/ERS requirements for 24-wave forms and provides accurate and reliable flow/volume measurements in the complete range of low to high flow. Thanks to its compact and lightweight design (30g only), the Pneumotach has a very small dead space (only 30mL). The Pneumotach is insensitive both to water vapor and breathing gas concentrations. As opposed to a turbine, the Pneumotach contains no moving parts or electronics and has no starting problems. Patients and athletes will appreciate the fact that it adds minimal resistance to airflow and is extremely comfortable to wear with both mask and mouthpiece.

- ❖ No warm-up time
- ❖ No moving parts or electronics for cost-effective testing



### HIGHLY ACCURATE AND PROVEN POWERCUBE-ERGO

Fast-response, stable and durable electrochemical (long-life) O<sub>2</sub> technology for O<sub>2</sub> measurements, and rapid ultrasound (patent) for CO<sub>2</sub> measurements. The CO<sub>2</sub> cell can ensure long periods of accurate measurements without the need for periodical system calibration. The long-life O<sub>2</sub> fuel cell can easily be replaced (within one minute).

# POST-TEST VIEW: KEY FEATURES

The CARDIOVIT CS-200 Excellence ErgoSpiro post-test evaluation screen is designed to have all data and evaluation tools laid out on one viewing screen, allowing you to perform faster, better interpretations.

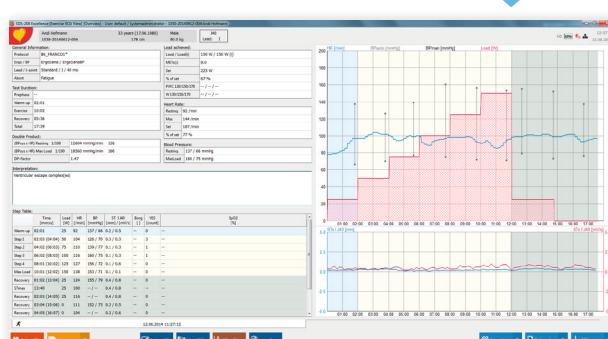
- Edit Resting ECG and check the automated interpretation
- Edit bloodpressure, Borg, VES and heart rate if necessary
- Edit the final report or select automated narrative report
- Edit average view on each stage
- Edit Rhythm view on each stage
- Edit beat full disclosure view
- Edit J point during or post exercise



RESTING ECG



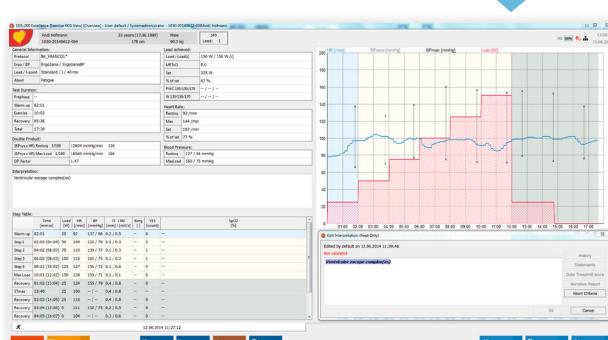
EXERCISE ECG FULL-DISCLOSURE VIEW



EXERCISE ECG OVERVIEW



EXERCISE ECG RHYTHM VIEW EACH STAGE



EXERCISE ECG OVERVIEW WITH NARRATIVE INTERPRETATION

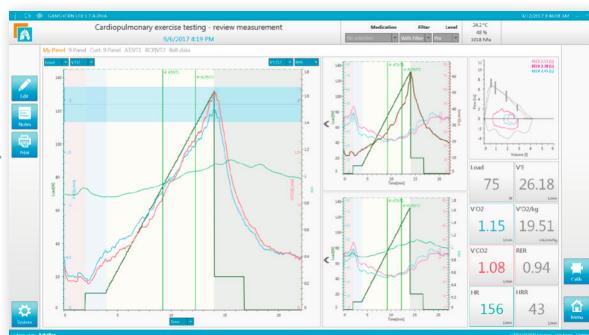


EXERCISE ECG AVERAGE VIEW

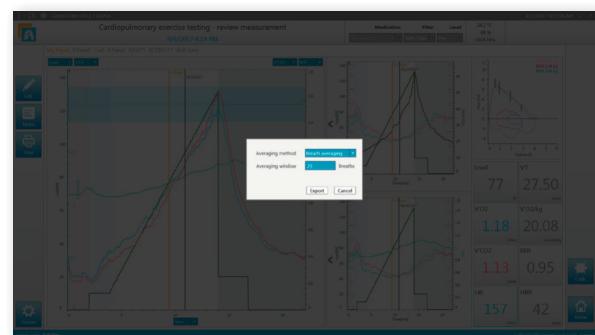
After the measurement, the evaluation workflow will guide you through the step-by-step post-test evaluation: Just click on the next tab views. This helps to reduce time-to-result.

The complete workflow includes:

- ❖ User-defined graphs
- ❖ 9-panel view according to 4th Edition and 5th Edition Wasserman Graph or user-defined 9-Panel Graph
- ❖ Editing the ventilatory threshold VT1
- ❖ Editing the ventilatory threshold VT2
- ❖ Graphical display of the breath-by-breath results
- ❖ Averaging export of breath or time



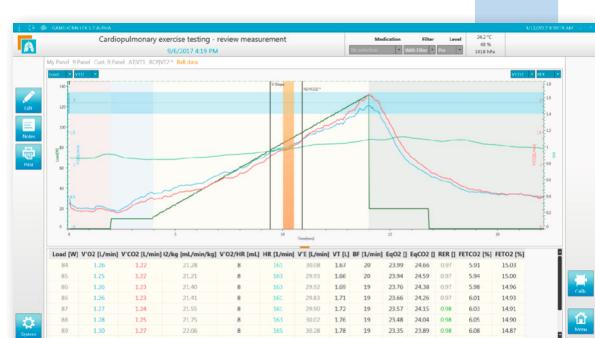
USER-DEFINED GRAPHS



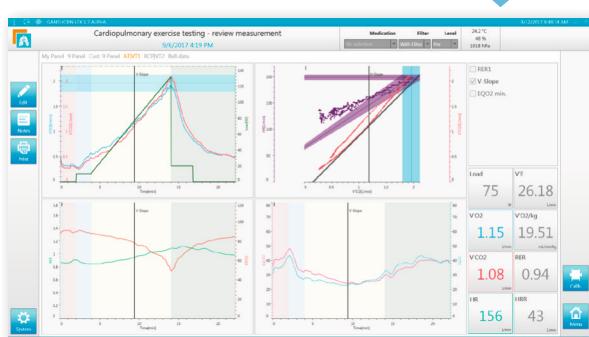
CHOOSE BREATH OR TIME AVERAGING  
EXPORT



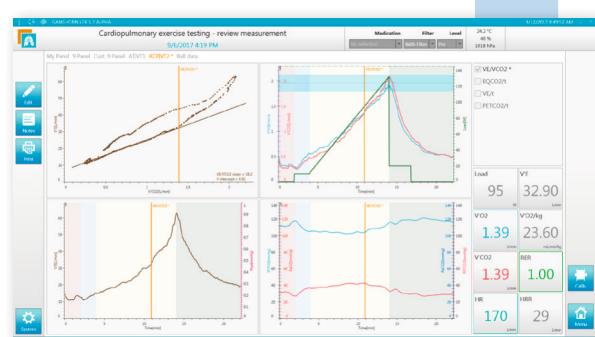
9-PANEL GRAPHS ACCORDING TO  
WASSERMAN



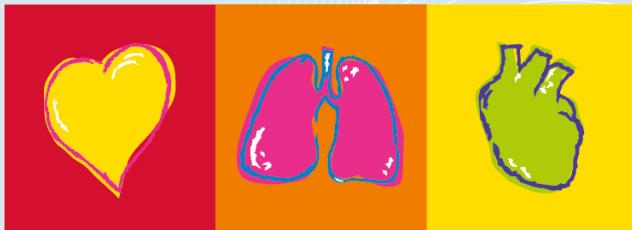
TABULAR BREATH BY BREATH DATA



EDITING VT1



EDITING VT2



# SCHILLER

---

## The Art of Diagnostics

### About SCHILLER

SCHILLER A. G., a company based in Switzerland, was founded by Alfred Schiller in 1974. Over the last 50 years, it has evolved into a successful Global Group with 31 subsidiaries and dealers across 30 countries. Today, SCHILLER is a world-leading manufacturer and supplier of devices for cardiopulmonary diagnostics, defibrillation and patient monitoring as well as software solutions for the medical industry.

Schiller in India was founded as a joint venture in 1997, and since then has established itself as a leader in the medical technology sector. With 450+ employees, a state-of-the-art ISO 13485-certified production centre in Puducherry, multiple R&D centres, and 17 offices across India; Schiller makes advanced healthcare equipment accessible through a network of 100 sales and service dealers across more than 45 locations. Our product range includes Critical Care, Anaesthesia, Emergency Care, Cardiology, Respiratory Diagnostics, Radiology, and Robotics.

Scan here  
to know more:



Part no. B3.100022  11/24 Ver. no. 1

All registered trademarks acknowledged.

**SCHILLER**

The Art of Diagnostics

Swiss H.Q.: SCHILLER AG, Altgasse 68, P. O. Box 1052, CH -6341 Baar, Switzerland

Indian H.O : Schiller Healthcare India Pvt. Ltd., Advance House, Makwana Road, Andheri (East), Mumbai-59. Tel : + 91 - 22 - 61523333

Factory : No. 15/5 & 15/6, Vazhuthavur Road, Kurumbapet, Puducherry - 605 009, India

Regional Offices: Mumbai: 022-61523333 Email: sales.west@schillerindia.com Delhi: 011-41062067 / 09312432205 Email: sales.north@schillerindia.com Kolkata: 033-23593102 / 033-23593103 Email: sales.east@schillerindia.com Chennai: 044-28232648 / 044-28311021 Email: sales.south@schillerindia.com Ahmedabad: 079- 35337949 / 079- 35337950 Email: sales.west@schillerindia.com Puducherry: 0413- 220 2680 / 0413- 229 2940 Email: sales.south@schillerindia.com

CIN : U33110MH1997PTC111307

 sales@schillerindia.com, help@schillerindia.com  www.schillerindia.com  1800 209 8998

Follow us on :  /SchillerHealthcareIndia  /schiller\_healthcare\_india  /schillerhealthcareindia  /schiller\_healthcare\_india  @schillerindia1074