



THE ART OF DIAGNOSTICS

SCHILLER. We save lives.



SCHILLER
The Art of Diagnostics



ALFRED E. SCHILLER

SWISS-DESIGNED INNOVATIVE MEDICAL TECHNOLOGY

SCHILLER was founded in 1974 by Alfred E. Schiller. Starting in a four-room flat as a one-man business, the company has become a successful group with around 1000 employees, 30 subsidiaries and a global sales network. 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.

In spite of the company's continuous growth, size is not as important to SCHILLER as is strength. It relies on a motivated team, creativity, openness to new ideas and pioneer courage. «The Art of Diagnostics» is infinitely creative and it inspires us to continuously improve our products.

We are pleased to present you our products in this brochure.

For more information please visit our website:

www.schiller.ch



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RESTING ECG

- › **CARDIOVIT AT-1**
- › **CARDIOVIT AT-101**
- › **CARDIOVIT AT-102**
- › **CARDIOVIT AT-102 plus**
- › **CARDIOVIT AT-10 plus**
- › **CARDIOVIT AT-170**
- › **CARDIOVIT MS-2007**
- › **CARDIOVIT MS-2010**
- › **CARDIOVIT MS-2015**
- › **CARDIOVIT FT-1**

CARDIOVIT® AT-1

Best-selling 3-channel ECG worldwide

The CARDIOVIT AT-1 performs quick and accurate 12-lead ECG analysis, in a three-channel format at the price of a one-channel system. With its compact, easy-to-use operation and built-in battery, the AT-1 is perfect for all applications including stationary practice use, hospital bedsides and ambulatory field work.

- ❖ 3-channel resting ECG
- ❖ Simultaneous 12-lead acquisition
- ❖ One-button operation
- ❖ Multiple report formats
- ❖ Various recording rates
- ❖ Automatic and manual modes
- ❖ Built-in rechargeable battery and charger unit



CARDIOVIT® AT-1

CARDIOVIT® AT-101

Reaching more people with a digital 3-channel ECG

The compact 3-channel ECG is a high-tech device for general practitioners as well as hospitals. Optional networking with XML output enables integration into larger systems.

- ❖ Direct keys for the important functions
- ❖ ECG measurement software with accurate measurements of recorded cardiac signals
- ❖ Various user-defined report formats on internal or external printer
- ❖ Interface to transmit recordings to a PC



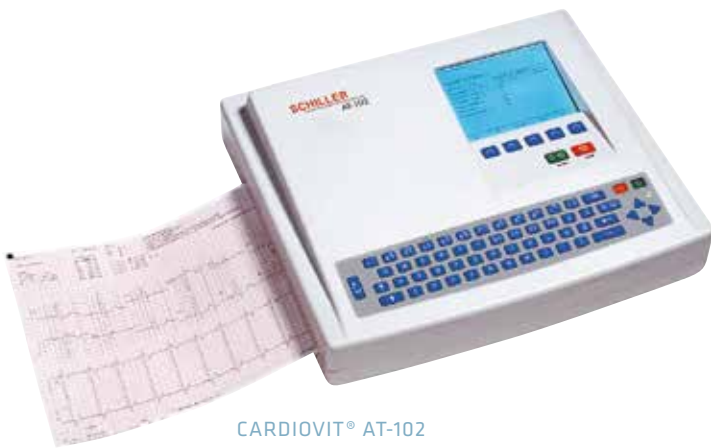
CARDIOVIT® AT-101

CARDIOVIT® AT-102

Proven 6-channel ECG performance

The most important cardiopulmonary function tests are combined in one single device: resting ECG, exercise ECG, spirometry. Ready for networking with XML output.

- ❖ Intuitive, easy to use with direct function keys
- ❖ ECG measurement software with accurate measurements of recorded cardiac signals
- ❖ A4 (8.5 x 11 inches) printouts on internal or external printer
- ❖ Easy to use with full keyboard and direct function keys
- ❖ ECG waveform display with 3 / 6 / 2x6 leads
- ❖ Pulmonary function measurements



CARDIOVIT® AT-102

CARDIOVIT® AT-102 plus

A 12-channel ECG. Simpler on the outside. Smarter on the inside.

The AT-102 plus—ideal for practice and clinic!

The system offers an intuitive, easy-to-use interface, a bright colour display and options for individual configuration.

- ❖ Intuitive, easy to use with full keyboard and direct function keys
- ❖ 6- or 12-channel online rhythm printout (manual mode)
- ❖ Posterior leads (V7-V9), right precordial leads (V3r-V6r) and standard leads with V4r
- ❖ Resting rhythm recording (12-lead full-disclosure ECG recording)
- ❖ ECG measurement software with accurate measurements of recorded cardiac signals
- ❖ 16-lead acquisition and analysis: based on real measurement data, not just calculations
- ❖ CCAA (Culprit Coronary Artery Algorithm™)
- ❖ Pulmonary function measurements
- ❖ Bidirectional communication / worklist, PDQ



CARDIOVIT® AT-102 plus

CARDIOVIT® AT-10 plus

High-performance 12-channel ECG system

The CARDIOVIT AT-10 plus combines the basics of electrocardiography with the benefits of the IT world.

It does not only provide all functions of a high-quality 12-channel electrocardiograph, but also meets the requirements of an integrated diagnostic workstation. Its brilliant communication concept makes the AT-10 plus an extremely flexible tool.

- ❖ 6- or 12-channel online rhythm printout (manual mode)
- ❖ Resting rhythm recording (12-lead full-disclosure ECG recording)
- ❖ Posterior leads (V7-V9), right precordial leads (V3r-V6r) and standard leads with V4r
- ❖ ECG print preview
- ❖ Stress test option
- ❖ 16-lead acquisition and analysis: based on real measurement data, not just calculations
- ❖ Various diagnostic analysis programs: SAECG, HRV, CCAA
- ❖ Pulmonary function measurements
- ❖ Bidirectional communication / worklist, PDQ



CARDIOVIT® AT-10 plus

CARDIOVIT® AT-170

Multi-use workstation

Multi-use workstation combines the largest touch screen with advanced clinical tools. SCHILLER's new high-end electrocardiograph AT-170 completes the proven AT product range. It offers robust design for the busiest hospitals, as well as a combination of applications that makes it the ideal multi-use workstation for private practices.

- ❖ Wide high-resolution touch screen for easy ECG review
- ❖ Full-size keyboard with a durable cover keeping dust, dirt and liquids away, making it highly hygienic
- ❖ Stress test option
- ❖ Various diagnostic analysis programs: ETM, ETM Sport, HyperQ Resting, SAECG
- ❖ Resting 16-lead acquisition and analysis: based on real measurement data, not just calculations
- ❖ Bidirectional communication / worklist, PDQ



CARDIOVIT® AT-170

CARDIOVIT® MS-2007

Touch screen ECG

Portable, easy to use, trusted
12-channel ECG quality

Easy-to-use 7" touch screen ECG technology enables clinicians to test more patients in a shorter time, increasing access to high-quality healthcare for everyone. As easy as «connect and click», ensuring the high quality of ECG data and resulting in a fast and simple ECG testing process. This allows physicians to focus on diagnosis and care.

- ❖ Low weight, intuitive user interface, easy to use with touch screen keyboard
- ❖ ECG measurement software with accurate measurements of recorded cardiac signals
- ❖ One-touch workflow configuration
- ❖ CCAA (Culprit Coronary Artery Algorithm™)
- ❖ Bidirectional communication / worklist, PDQ



CARDIOVIT® MS-2007

CARDIOVIT® MS-2010

Touch screen ECG

Connecting hearts and minds with a 12-channel ECG system

Designed for speed and efficiency, the 10.4" high-resolution colour touch screen immediately lets you record, select and print highest quality ECGs. Ideal for clinics where the ECG volume is high and speed and quality are paramount.

- ❖ Low weight, intuitive user interface, easy to use with touch screen keyboard
- ❖ ECG measurement software with accurate measurements of recorded cardiac signals
- ❖ Pulmonary function measurements
- ❖ One-touch workflow configuration
- ❖ CCAA (Culprit Coronary Artery Algorithm™)
- ❖ Bidirectional communication / worklist, PDQ



CARDIOVIT® MS-2010

CARDIOVIT® MS-2015

Touch screen ECG

Advanced 12-channel ECG system

Based on the high-end touch screen technology of the CARDIOVIT MS-2010, the CARDIOVIT MS-2015 offers an even larger 15-inch high-resolution colour display. It allows users to record, select and print highest quality 12-lead ECGs.

- ❖ Large, easy to use with 15" full-colour touch screen display
- ❖ ECG measurement software with accurate measurements of recorded cardiac signals
- ❖ Pulmonary function measurements
- ❖ One-touch workflow configuration
- ❖ 16-lead acquisition and analysis: based on real measurement data, not just calculations
- ❖ CCAA (Culprit Coronary Artery Algorithm™)
- ❖ Bidirectional communication / worklist, PDQ



CARDIOVIT® MS-2015

CARDIOVIT® FT-1

Maximum performance in a compact electrocardiograph

SCHILLER's latest innovation is ultra-portable, has an intuitive 8" high-resolution multi-touch screen and an integrated thermal printer. Designed for users who value state-of-the-art technology, the CARDIOVIT FT-1 is a networked device providing connectivity and a paperless workflow.

- ❖ Power and flexibility of a PC in a portable ECG
- ❖ Bidirectional Wi-Fi/LAN communication to EMR
- ❖ Various diagnostic analysis programs: ETM, CCAA
- ❖ Lead reversal warnings



CARDIOVIT® FT-1



EXERCISE ECG

- › **CARDIOVIT CS-200 Office**
- › **CARDIOVIT CS-200 Touch**
- › **CARDIOVIT CS-200**
- › **CARDIOVIT CS-200 Excellence**
- › **CARDIOVIT CS-200 Ergospiro**
- › **CARDIOVIT AT-104 PC Ergospiro**
- › **CARDIOVIT AT-104 PC**
- › **Ergometer**
- › **Treadmill**
- › **SRMS–SCHILLER Rehabilitation Management System**

CARDIOVIT® CS-200 Office

Exercise testing with maximum freedom

The CARDIOVIT CS-200 Office completes the new generation of exercise test systems and is designed for use in the physician's office. The powerful combination of the MS-12 blue, a wireless Bluetooth 12-channel ECG amplifier, and the SDS-200 Office software allows more freedom to operate in any environment, even in confined spaces. Motion artefacts are minimised by eliminating the analogue cable connection. CARDIOVIT CS-200 Office is also available with MS-12 USB (USB connection) instead of MS-12 blue (Bluetooth).

- ❖ Pharmacological exercise testing
- ❖ Risk-predicting algorithms (Duke treadmill score)
- ❖ EMR/HIS interface via GDT, HL7, DICOM
- ❖ Interface to SCHILLER long-term blood pressure recorder (ABPM)
- ❖ Interface to SCHILLER long-term Holter ECG recorder
- ❖ ETM ECG analysis program for adults and children as well as ETM Sport, the first automated interpretation of athletes' ECGs based on the Seattle Criteria
- ❖ 3D vector ECG software



CARDIOVIT® CS-200 Office

CARDIOVIT® CS-200 Touch

The next generation of exercise ECG systems

Experience the CARDIOVIT CS-200 Touch and get a view of the future where precision, performance and sophisticated ergonomics converge.

Introducing the next generation of exercise electrocardiography by SCHILLER: the CS-200 Touch with touch screen, 12/16 channels and unique BP monitoring technique for stress tests. Due to its well-accepted, easy operation in all modes, CS-200 Touch is ideal for the office and for clinical applications. Integrated database connectivity to the office computer and clinical information systems allows electronic data retrieval and a paperless environment.

- ❖ Resting ECG, exercise ECG, stress test blood pressure measurement, all in one application
- ❖ 16-lead acquisition and analysis: based on real measurement data, not just calculations
- ❖ Resting rhythm
- ❖ Various diagnostic analysis programs: Pacemaker measurement software, ETM ECG analysis, ETM Sport, SAECC, AF Toolbox, HyperQ™ Stress and Resting



CARDIOVIT® CS-200 Touch

CARDIOVIT® CS-200

Complete diagnostic system Innovation and excellence

From high-throughput stress labs to small practices, the CS-200 is a multitasking system delivering highly scalable solutions to meet your unique performance and productivity requirements. Advanced features such as powerful analysis and diagnostic tools and sophisticated networking help enhancing your clinical decision-making. The open system architecture allows the implementation of new programs and future system expansion.

- ❖ Direct function keys allowing immediate emergency ECGs without starting Windows
- ❖ Interfaces for control of digital ergometers/treadmills
- ❖ On-board data management
- ❖ CS-200 networking allows you to review, edit, print and export stored final reports, keeping your exercise system available for testing
- ❖ SAECC: analysis software to detect ventricular late potentials



CARDIOVIT® CS-200

CARDIOVIT® CS-200 Excellence

Cardiopulmonary diagnostic system Designed for high-volume workload, equipped with the latest technology to save time and boost productivity

The CS-200 Excellence cardiac assessment system for exercise testing puts great emphasis on performance. With industry-leading algorithms, CS-200 Excellence enables you to quickly and easily optimise your digital workflow with seamless connectivity to EMR, SEMA cardiology information system and PACS.

- ❖ Data quality with algorithms that provide the clearest, most accurate test results
- ❖ ECG measurement software with accurate measurements of recorded cardiac signals
- ❖ Resting rhythm
- ❖ Hook-up advisor-signal quality analysis program reviews and measures ECG waveforms for signs of artefacts and interference, helping to improve poor waveform quality
- ❖ Pharmacological exercise testing
- ❖ 16-lead acquisition and analysis: based on real measurement data, not just calculations
- ❖ Various diagnostic analysis programs: ETM, ETM Sport, HyperQ™ (Resting and Stress), SAECC, AF Toolbox



CARDIOVIT® CS-200
EXCELLENCE

CARDIOVIT® CS-200 Ergo-Spiro

Multifunctional diagnostic workstation A multitude of functions—all in one device!

The CARDIOVIT CS-200 Ergo-Spiro is the perfect multifunctional system for cardiology, pneumology, sports medicine and mass screening, as well as rehabilitation. It offers a complete function analysis of heart, lung, blood circulation and metabolism. This device covers all areas of cardiopulmonary diagnostics. Whether for cardiology, pneumology, sports or industrial medicine, this multifunctional exercise testing system is the solution for every need.

- ❖ Light, bi-directional sensor that is absolutely insensitive to humidity
- ❖ Micro fuel cell for O₂ measurement (maintenance-free)
- ❖ Free combination of parameters and graphs for individual result protocols
- ❖ Flow/volume under load (intra breath)
- ❖ Indirect calorimetry (nutrition)
- ❖ Spirometry and MVV measurement included in standard version

- ❖ 3D vector ECG software
- ❖ SAECG: analysis software to detect ventricular late potentials (time domain)
- ❖ Cardiac output measurement
- ❖ SpO₂ measurement



CARDIOVIT®
CS-200 Ergo-Spiro

CARDIOVIT® AT-104 PC Ergo-Spiro

Multifunctional diagnostic workstation Cardiopulmonary exercise tests (CPET) with touch screen

The CARDIOVIT AT-104 ECG recorder, in conjunction with the PowerCube® gas analysis unit, provides high-performance ergo-spiro analysis. This multi-functional diagnostic workstation unifies all major cardiopulmonary functions in one single device, offering an excellent price/performance ratio.

- ❖ Double screen system:
 - 1 screen for cardiology (touch)
 - 1 screen for pneumology (touch)
- ❖ Micro fuel cell for O₂ measurement (maintenance-free)
- ❖ Indirect calorimetry (nutrition)
- ❖ Spirometry and MVV measurement included in standard version



CARDIOVIT®
AT-104 PC Ergo-Spiro

CARDIOVIT® AT-104 PC

SCHILLER PC ECG workstation

Accurate functional diagnostics—easy to use

The CARDIOVIT AT-104 PC diagnostic system is much more than just a software program. It is a data acquisition and management solution that can be installed on your laptop/PC or in your network.

- ❖ ECG measurement software with accurate measurements of recorded cardiac signals
- ❖ Resting rhythm
- ❖ PC-based or stand-alone operation
- ❖ SCHILLER filter technology
- ❖ Interfaces for control of digital ergometers/treadmills
- ❖ Pulmonary function measurements



CARDIOVIT® AT-104 PC

ERG 910/S Plus

Bicycle ergometer

Clear—simple—economic

Our bicycle ergometers have been developed and constructed according to the latest European guidelines for medical ergometers. Due to their flexible controlling technology and saddle fixation, these ergometers are suitable for stress tests, sports medicine, cardiology and rehabilitation.

- ❖ Compatible with all SCHILLER exercise ECG workstations
- ❖ Large graphic LCD (10 x 7.5 cm)
- ❖ Automatic computer control via galvanically isolated RS-232 interface
- ❖ Safe and stable steel/aluminium construction for patients weighing up to 160 kg

ERG 911S/ Seat

Seat ergometer

The Seat ergometer has been developed for very heavy patients up to 300 kg. Intended for use with high-risk, elderly or physically handicapped patients.

- ❖ Large, rotatable LCD display (10 x 7.5 cm)
- ❖ Manual load control in step of 5 or 25 watts
- ❖ 5 user-defined exercise test programs, freely programmable
- ❖ Dimensions/basis: 40x130 cm/weight: 60 kg
- ❖ Max. patient weight: 300 kg
- ❖ Almost noiseless mechanism due to computer-controlled eddy current brakes with torque measurement, independent of revolutions per minute



ERG 911S/ Seat

ERG 911 BP/HK

Hand ergometer

Hand ergometer for mobility-impaired patients

SCHILLER's hand ergometer has been designed for mobility-impaired patients with its construction being based on the SCHILLER bicycle model ERG 911 / 911BP. The seat can easily be slid away to accommodate paraplegic patients.

- ❖ Blood pressure measurement (option)
- ❖ Horizontally or vertically adjustable seat
- ❖ Noiseless mechanism even at high speed
- ❖ 5 freely programmable ergometry programs
- ❖ Smallest usage of floor space (40 x 108 cm)
- ❖ Low weight (57 kg)



ERG 911BP/HK

ERG 911 S/X-RAY

X-ray ergometer

Our X-ray ergometer has been especially developed for application in X-ray environment.

- ❖ Large, rotatable LCD display (10 x 7.5 cm)
- ❖ 5 user-defined exercise test programs, freely programmable
- ❖ Weight: 57 kg
- ❖ Almost noiseless mechanism due to computer-controlled eddy current brakes with torque measurement, independent of revolutions per minute

Specifications of the X-ray table needed:

- ❖ Model type, brand name
- ❖ Dimensions (length, width and height) in cm
- ❖ Part number
- ❖ Serial number (if any)

ERG 911 S Plus

Bicycle ergometer

Our bicycle ergometers have been developed and constructed according to the latest European guidelines for medical ergometers. Due to their flexible controlling technology and saddle fixation, these ergometers are suitable for stress tests, sports medicine, cardiology and rehabilitation.

- ❖ Compatible with all SCHILLER exercise ECG workstations
- ❖ Large graphic LCD (10 x 7.5 cm)
- ❖ Safe and stable steel/aluminium construction for patients weighing up to 160 kg
- ❖ Speed-independent load
- ❖ Standardized saddle fixation for flexible operation
- ❖ Optional blood pressure measurement
- ❖ Cuffs in different sizes available for adults and children



ERG 911/S Plus

ERG 911 S/L

Medical-safety variable couch ergometer

This variable couch ergometer has been developed for the cardiology sector, where special safety requirements have to be met. With easily adjustable positioning, this new couch ergometer has been designed for exercise testing, cardiac catheter tests and rehabilitation. Intended for use with high-risk, elderly or physically handicapped patients.

- ❖ Compatible with all SCHILLER exercise ECG workstations
- ❖ Adjustment of the reclining seat, saddle and headrest by remote control
- ❖ Large, rotating LCD (10 x 7.5 cm)
- ❖ Safe and stable steel/aluminium construction for patients weighing up to 160 kg



ERG 911 S/L

ERG 911 BP/LS

Ergometer for exercise testing and echocardiography

ERG 911 BP/LS is based on the technology of the couch/semi-couch safety ergometer ERG 911 BP/L.

Additional rotation axis of the couch to the left allows positioning the patient at an angle of up to 45 degrees. This position is especially suited for high-quality ultrasound images during an exercise echo examination. A hip belt and a stable shoulder support provide patient safety and a comfortable position while the couch is turned to its side.

Besides this special application, the ergometer can of course also be used as a normal couch/semi-couch safety ergometer. Special safety aspects, e.g. in cases of suspected cardiovascular disorders, exercise testing after cardiac infarction or following bypass operations, and special exercise ergometry applications, such as heart catheter examinations, require the use of this ergometer.

- ❖ Slope, saddle height and headrest adjustable via remote control
- ❖ Left side positioning for ultrasound images
- ❖ Measurements controllable using a PC program or an ECG/ergo-spirometry unit via RS-232 or USB interface
- ❖ Variable axis rotation to the left (0-45°)
- ❖ Increased patient safety with mounting strap
- ❖ Safe and stable steel/aluminium construction for patients weighing up to 160 kg
- ❖ Optional blood pressure measurement
- ❖ Cuffs in different sizes available for adults and children

MTM-1500 med

Treadmill ergometer

The SCHILLER treadmill ergometers MTM-1500 and MTM-1500med are designed for exercise testing, sports medicine and cardiology. Both ergometers are equipped and tested with the latest safety systems and have been manufactured to stringent quality requirements according to MDD 93/42.

- ❖ Running surface: 150 x 50 cm, 0...20 km/h, 0...25%
- ❖ Compatible with all SCHILLER exercise ECG recorders
- ❖ MTM-1500 med: with potential isolation transformer according to the IEC 60601-1 standard
- ❖ Automatic control by computer via RS-232 interface (5 m interface cable included)
- ❖ Emergency stop switch, individually adjustable
- ❖ Max. user weight: 200 kg



ERG 911 BP/LS

Intertrack 8100

Treadmill ergometer

Exercise testing becomes even more efficient and convenient with the Intertrack treadmill. It is equipped with a high-efficiency energy-saving motor, with low vibrations and a unique dynamic performance, ensuring an extremely long lifespan.

- ❖ Integrated RS-232 interface
- ❖ For patients weighing up to 180 kg
- ❖ Expanded running area allowing ideal stimulation of lower limbs
- ❖ Long-wearing, antistatic, four-layer polyester belt and waxed deck provide a nearly silent operation
- ❖ Automatic belt tensioner
- ❖ Easy connection with exercise ECG system
- ❖ Removable handrails
- ❖ Isolation transformer (optional)
- ❖ Display console (optional)

SRMS SCHILLER Rehabilitation Management System

SRMS (SCHILLER Rehabilitation Management System) is a cardiac rehabilitation unit that allows the safe and simultaneous training of up to 16 patients.

This Windows-based application automatically controls all connected ergometers and treadmills. Entering patient data, managing exercise sessions and creating reports have become simple tasks that no longer require tedious manual steps.

- ❖ High-resolution display that can be increased by double-clicking
- ❖ Up to 16 training stations simultaneously, ergometers and treadmills (8 stations per monitor)
- ❖ Time-saving patient management
- ❖ Group assignment
- ❖ Single occupancy with chip card
- ❖ Modern medical training methods
- ❖ Pulse- and load-controlled training programs
- ❖ Treadmill programs
- ❖ Seamless quality management and documentation





ECG AND ABPM HOLTER

- › **medilog AR12plus**
- › **medilog AR4plus**
- › **medilog FD5plus**
- › **medilog FD12plus**
- › **medilog DARWIN2**
- › **BP-200 plus**
- › **BR-102 plus**
- › **BR-102 PWA**

medilog® AR12plus

Long-term ECG recorder

Advanced long-term ECG recording to meet high expectations

The long-term ECG recorder medilog AR12plus is designed for 3-channel ECG recordings and offers a wide range of ECG analysis options. Utilizes its built-in online analysis to find P-waves for comprehensive atrial analysis. Easily screen for sleep apnoea with the apnoea detection function and the capability to connect a SpO₂ sensor via Bluetooth.

- ✦ PureECG technology
- ✦ P-wave detection and atrial analysis
- ✦ Apnoea detection
- ✦ HRV analysis
- ✦ Fire of Life
- ✦ Motion analysis
- ✦ ST/QT/pacemaker analysis
- ✦ QRS detection
- ✦ Wireless Bluetooth interface
- ✦ max. 80 hours recording time
- ✦ Water resistant



medilog® AR12plus

medilog® AR4plus

Long-term ECG recorder

Highest signal quality with P-wave detection also with active patients

The long-term ECG recorder medilog AR4plus is designed for 3-channel ECG recordings and offers a wide range of ECG analysis options. Utilizes its built-in online analysis to find P-waves for comprehensive atrial analysis.

- ✦ PureECG technology
- ✦ P-wave detection and atrial analysis
- ✦ HRV analysis
- ✦ Fire of Life
- ✦ Motion analysis
- ✦ ST/QT/pacemaker analysis
- ✦ QRS detection
- ✦ max. 80 hours recording time
- ✦ Water resistant



medilog® AR4plus

medilog® FD5plus

Long-term ECG recorder

Precise long-term ECG recordings

The long-term ECG recorder medilog FD5plus is designed for 3-channel ECG recordings and offers a wide range of ECG analysis options.

- ❖ PureECG technology
- ❖ HRV analysis
- ❖ ST/QT/pacemaker analysis
- ❖ max. 80 hours recording time
- ❖ Water resistant



medilog® FD5plus

medilog® FD12plus

Long-term ECG recorder

Sophisticated long-term ECG recorder

The new medilog FD12plus is the most sophisticated long-term ECG recorder of the medilog plus series and is designed for 3- or 12-channel ECG recordings. When the AF/AFL configuration is selected, 3 ECG channels can be recorded for 7 days without having to change the battery!

- ❖ PureECG technology
- ❖ HRV analysis
- ❖ Fire of Life
- ❖ Apnoea detection
- ❖ ST/QT/pacemaker analysis
- ❖ Real-time QRS detection
- ❖ Real-time P-wave detection and atrial analysis
- ❖ Motion analysis
- ❖ Wireless Bluetooth™ interface
- ❖ 7 days recording time (3-channel mode)



medilog® FD12plus

medilog® DARWIN2

Analysis of 24-hour Holter recordings

DARWIN2 is designed to maximise speed and ease of use. The automatic analysis of a 24-hour Holter recording takes less than 90 seconds, with extremely accurate results. Data review is faster than ever: it takes only three mouse clicks to generate a comprehensive report.

It is available in three different versions to suit the needs of any organisation and to grow with it:

- ❖ **DARWIN2 Office:** optimised for routine application in physicians' offices
- ❖ **DARWIN2 Professional:** perfect for a small to mid-sized Holter scanning centre with the need for fast atrial fibrillation detection
- ❖ **DARWIN2 Enterprise:** for the most demanding research centres and high-volume hospitals. Includes atrial fibrillation, apnoea detection, SpO₂ and an option for scanlab web-service



medilog® DARWIN2

BP-200 plus

Accuracy and performance

BP-200 plus is a non invasive exercise test blood pressure monitor, designed to automatically measure and display a patient's systolic and diastolic blood pressures at preset intervals, or on demand of the operator.

BP-200 plus uses two measuring methods: the SCHILLER K-sound analysis with or without QRS trigger for measurements during exercise test, and oscillometric measurements for resting situations.

- ❖ Real-time display with waveform and measurements
- ❖ Tabular and trend data
- ❖ RS-232 interface for communication with SCHILLER ECG systems (AT-10 plus, AT-104 PC, CS-200, CS-200 Excellence)
- ❖ BP readings initiated automatically or manually
- ❖ Headphones
- ❖ Mini SD card for software update
- ❖ Specially designed for stress tests



BP-200 plus

BR-102 plus

The discreet, small BP monitoring unit

The SCHILLER BR-102 plus gives the highest degree of patient comfort while maintaining most precise measurements.

It is distinguished by its small dimensions and low weight. Incorporating a special technique, the cuff is only inflated as much as needed.

Choose between two versions:

- ❖ Measurements are made using both the auscultatoric and the oscillometric methods, where the oscillometric measurement is used as backup to ensure accurate results for each measurement.
- ❖ Purely oscillometric method—enables reliable blood pressure measurement without microphone



BR-102 plus

BR-102 PWA

BR-102 PWA

SCHILLER's Pulse Wave Analysis (PWA): circadian central haemodynamics and blood pressure measurement in one

SCHILLER presents the first solution that combines the non-invasive, cuff-based precise auscultatoric and the reliable oscillometric measurement to generate a 24-hour profile of stiffness parameters like pulse wave velocity, augmentation index and central and peripheral blood pressures.

Based on individual arterial behaviour, it is now possible to evaluate the risk of developing a cardiovascular disease and helps to prevent severe organ damage.

As an autonomic operating device, it perfectly integrates into ABPM routine—no specially trained operator is needed for PWA measurements.

SCHILLER's PWA algorithm is fully validated in several studies, including comparisons with the gold standard: invasive catheter measurements; it is thus recommended by the ESH/ESC in their guidelines.

- ❖ Easy user interface with colour display
- ❖ Measurement on diastolic level for increased patient comfort
- ❖ Up to 48 hours profile and not just spot measurements (tonometric method)
- ❖ Includes the auscultatoric measurement which is much more reliable
- ❖ Comprehensive validation studies
- ❖ Fully integrated with the wide range of SCHILLER diagnostic products, with seamless connectivity to SEMA data management system and to HIS



PULMONARY FUNCTION TESTING

- › **GANSHORN Ergospirometer PowerCube®-Ergo**
- › **GANSHORN PowerCube® Body+**
- › **GANSHORN PowerCube® Diffusion+**
- › **GANSHORN SpiroScout**
- › **SPIROVIT Sensors**

GANSHORN Ergospirometer PowerCube®-Ergo

The versatile system for perfect ergospirometry

The PowerCube-Ergo is the tool that meets the high requirements of cardiopulmonary diagnostics. The pneumotachograph with variable orifice is lightweight and completely unsusceptible to moisture. The quick, highly stable gas analysers give real breath-by-breath measurements. The user interface can be freely configured for measurement and interpretation.

- ❖ Standard system with spirometry, flow-volume, MVV as well as «ErgoCheck» software for result validation
- ❖ Further options are e.g. evaluation software LFSport, SpO₂, oscillatory resistance, ergometry system etc.
- ❖ Simultaneous display of the 9-panel diagram according to Wasserman—also on-screen during the measurement
- ❖ Automated determination of the anaerobic threshold by set method (V-slope, CO₂-excess, EQO₂ minimum, RQ=1) or manually in the diagrams



GANSHORN Ergospirometer
PowerCube®-Ergo

GANSHORN PowerCube® Body+

GANSHORN body plethysmography

The body plethysmography is a very sensitive lung measurement used to detect complex or mixed lung pathology that might be missed with conventional pulmonary function tests. Upmost long-term stability in conjunction with our new analysis algorithms enables you to initially differentiate between asthma, COPD, restriction or any combination of these disorders just by looking at the shape of the curve.

- ❖ Ultrasonic flow measurement as standard
- ❖ Calibration-free
- ❖ Easily adjustable patient interface
- ❖ The choice of either a broad bench seat (max. 160 kg) or a height-adjustable swivel chair (max. 120 kg)
- ❖ Automatic and simultaneous calibration of both the cabin and the mouth pressure at three different frequencies
- ❖ BodyLiveCal to test your TGV
- ❖ Ceiling lighting that can illuminate in different colours, including white
- ❖ LEDs indicating the locked state of the door



GANSHORN PowerCube® Body+

GANSHORN PowerCube® Diffusion+

Diffusion measurement system Power-Cube Diffusion

Acquire both diffusion and distribution dysfunctions in one measurement

The accurate and reliable analyzers enable a high-resolution display of the wash-in curves of CO and helium.

Any existing diffusion and distribution disorders become visible at first glance. Our system's demand valve regulates the gas intake, providing economic benefits.

- ❖ Determination of diffusion capacity (TLCO) and helium-FRC SB meets ERS/ATS standard
- ❖ Continuous display of the exhalation concentration for CO and helium for the precise differentiation of dead space and alveolar plateau
- ❖ Economical measurement gas consumption
- ❖ Optimization of the breathing manoeuvre aided by informative assistance diagrams
- ❖ Fast multigas CO/CH₄/C₂H₂ analyzer
- ❖ Realtime molar mass helium analyzer



GANSHORN PowerCube® Diffusion+

GANSHORN SpiroScout

Respiratory gas analysis

The SpiroScout is a complete lung function laboratory based on the unique ultrasonic measurement principle of GANSHORN. It enables the exact determination of all spirometric parameters.

As the first of its kind, the SpiroScout simultaneously measures flow and gas density providing all the necessary information about the volume and gas exchange from one single measurement.

- ❖ High-precision spirometry due to direct flow measurement
- ❖ Realtime BTPS correction, drift free, high accuracy
- ❖ Different options available such as rhinomanometry, oscillatory resistance, capnovolumetry, emphysema test, dead space analysis
- ❖ No volume calibration and no warm-up time necessary
- ❖ Perfectly hygienic concept optimising workflow and patient safety
- ❖ No perceptible resistance and more comfort for the patients



GANSHORN SpiroScout

SPIROVIT Sensors

Reusable and disposable pneumotach sensors

Only use SCHILLER-approved accessories and supplies to guarantee test accuracy and product performance. Our unique sensors meet all requirements of ATS and ERS standards. Having the choice of disposable or single-patient-use sensors eliminates sterilization concerns, saves time and guarantees accurate measurements.

- ❖ One of the smallest sensors worldwide
- ❖ Lightweight and low cost
- ❖ Easily fits children's hands





DIAGNOSTIC STATION

› DIAGNOSTIC STATION DS20

DIAGNOSTIC STATION DS20

Modern and practical design unites the most commonly demanded functions

SCHILLER's DIAGNOSTIC STATION DS20 simplifies the daily work.

- ❖ Most vital signs and physical assessment tools united in one device
- ❖ Large, interactive touch screen
- ❖ Intuitive guidance and ease of use



DIAGNOSTIC STATION DS20



EMERGENCY CARE AND RESUSCITATION

- › **FRED easyport**
- › **FRED easy**
- › **FRED easy Life**
- › **DEFIGARD 4000**
- › **DEFIGARD 5000**
- › **ARGUS PRO LifeCare**
- › **ARGUS PRO LifeCare 2**
- › **DEFIGARD Touch 7**
- › **EASY PULSE**
- › **ARGUS LifePoint**

FRED® easyport®

The world's first pocket defibrillator

FRED easyport is an incredibly small and light pocket defibrillator.

FRED easyport is the ideal companion for physicians, public service staff, even for risk patients and their family members, or other persons trained in early defibrillation. This dramatically reduces the response time to treat ventricular fibrillation and tachycardia, giving victims a much better chance of survival.

- ❖ Ultra light—only 490 grams (incl. batteries)
- ❖ Ultra small—133 x 126 x 35 mm (l x w x h)
- ❖ High-resolution LCD
- ❖ Configurable adult and paediatric energy settings according to standard values
- ❖ Automatic switch to paediatric energy level when paediatric electrodes are connected



FRED® easyport



FRED® easy

FRED® easy

Defibrillation modes for all needs

The automated external defibrillator FRED easy makes resuscitation even simpler and more effective. It represents the perfect device for healthcare professionals and the general public alike (PAD).

FRED easy is available in the following versions:

- ❖ **Fully automatic mode:** attach electrodes to the patient, switch the unit on and let the device analyse and deliver the shock if necessary.
- ❖ **Semi-automatic mode:** attach electrodes to the patient, switch the unit on and follow instructions, press the shock button if recommended by the device.
- ❖ **Manual override:** doctors can switch off the AED mode and decide whether they want to defibrillate or not.

- ❖ Easy to operate
- ❖ Quick charging time
- ❖ Detailed audio and visual instructions

FRED® easy Life

External defibrillator

FRED easy Life gives simple, clear and detailed audio and visual instructions to guide the rescuer safely through the entire procedure of resuscitation. A metronome indicates the right rhythm to perform efficient chest compressions.

FRED easy Life is available in:

- ❖ **Fully automatic mode:** attach electrodes to the patient, switch the unit on and let the device analyse and deliver the shock if necessary.
- ❖ **Semi-automatic mode:** attach electrodes to the patient, switch the unit on and follow instructions, press the shock button if recommended by the device.
- ❖ Easy to operate
- ❖ Quick charging time
- ❖ Detailed audio and visual instructions



FRED® easy Life

DEFIGARD® 4000

Defibrillator and monitor

Developed for pre-hospital emergencies, the DG 4000 is also perfect for intra-hospital use. A single button gives access to all major functions like energy selection in manual mode, pacemaker and AED.

The DG 4000 comes in two types, with paddles or pads, both with a bright and clear display, a 3-lead ECG cable and mains or battery supply.

- ❖ Manual or semi-automatic defibrillation
- ❖ ECG
- ❖ USB interface for data transfer from the internal memory and software upgrade
- ❖ SpO₂ MASIMO with plethysmogram
- ❖ Transcutaneous pacemaker
- ❖ Thermal printer
- ❖ AED



DEFIGARD® 4000

DEFIGARD® 5000

Hospital defibrillation

The big size of the colour screen (10.4") of the DEFIGARD 5000 allows the simultaneous display of up to 12 ECG leads. The navigation button and direct soft keys give you quick access to all parameters and menus and make the device extremely user-friendly and easy to use.

- ❖ Defibrillation is possible using adhesive pads, external paddles or internal spoons
- ❖ Data saving: internal memory allowing storage of 3 hours of ECG and 500 events in AED mode, as well as 24-hour trends, both graphic and tabular, for all parameters
- ❖ Download of AED data via the USB port using a memory stick



DEFIGARD® 5000

ARGUS® PRO LifeCare

Defibrillator and monitor

The combination of AED/manual defibrillator, pacemaker and monitoring functions is unique and opens up new possibilities in emergency care and hospital applications.

- ❖ ECG monitoring with 6 to 12 leads
- ❖ Diagnostic ECG with interpretation
- ❖ Non invasive blood pressure measurement
- ❖ SpO₂ MASIMO with plethysmogram
- ❖ EtCO₂ mainstream or sidestream with capnogram
- ❖ 2 temperature channels
- ❖ Invasive blood pressure channel
- ❖ AED
- ❖ Manual defibrillator (sync/async)
- ❖ Transcutaneous pacemaker
- ❖ External printer
- ❖ Bluetooth data transmission



ARGUS® PRO LifeCare

ARGUS® PRO LifeCare 2

Defibrillator, pacemaker, patient monitor and 12-channel ECG in a compact design

Whatever the requirement—emergency care, interhospital or in-house patient transfer, the ARGUS PRO LifeCare 2 assists you without compromise. All this power in a unique, compact 4.4 kg package.

- ❖ ECG monitoring with 6 to 12 leads
- ❖ Diagnostic ECG with interpretation
- ❖ On-screen 12-lead ECG review
- ❖ Non invasive blood pressure measurement
- ❖ SpO₂ MASIMO Rainbow® (SpCO, SpMet, SpHb, PI), with plethysmogram
- ❖ 2 temperature channels
- ❖ 2 invasive blood pressure channels
- ❖ EtCO₂ mainstream or sidestream with capnogram
- ❖ AED
- ❖ Manual defibrillator (sync/async)
- ❖ Metronome
- ❖ Transcutaneous pacemaker
- ❖ Built-in 6-channel thermal printer
- ❖ ST measurement
- ❖ GSM data transmission
- ❖ Bluetooth data transmission



ARGUS® PRO LifeCare 2

DEFIGARD® Touch 7

Emergency monitor and defibrillator with touch screen

The DEFIGARD Touch 7 is an indispensable tool for rescuers.

The device is extremely compact and offers the latest defibrillation technology in combination with comprehensive monitoring functions. It is the first emergency monitor/defibrillator equipped with a touch screen—making it the most intuitive device on the market—as well as with the latest data transmission technology.

- ❖ ECG with 6 to 12 leads
- ❖ Diagnostic ECG with interpretation
- ❖ Non invasive blood pressure measurement
- ❖ SpO₂ MASIMO Rainbow® (SpCO, SpMet, PI), with plethysmogram
- ❖ Temperature channel
- ❖ AED
- ❖ Manual defibrillator (sync/async)
- ❖ Metronome
- ❖ GSM, WiFi data transmission
- ❖ Bluetooth data transmission



DEFIGARD® Touch 7

Multipulse Biowave®

All SCHILLER defibrillators feature the sophisticated Multipulse Biowave® technology. This patented defibrillation waveform is pulsed at high frequency. It consists of two phases of current flowing in opposite directions (biphasic). The characteristics of Multipulse Biowave® ensure that the defibrillation shock is very effective and safe while the energy is extremely low.

EASY PULSE®

Efficient and compact mechanical CPR thanks to technological innovation

Performing manual chest compressions well for an extended period of time is almost impossible.

SCHILLER's EASY PULSE is the solution for more effective resuscitation: this portable, stand-alone device delivers chest compressions automatically at a consistent rate and depth.

- ❖ World's smallest and lightest electrically driven CPR device, weighing less than 3.5 kg
- ❖ Ideal for confined spaces
- ❖ Multidirectional chest compressions
- ❖ High-quality chest compressions of consistent rate and depth, which is impossible to achieve with manual compressions
- ❖ Possibility of 30:2 compression–ventilation cycle
- ❖ Thanks to slider and buckle system, a single person can easily attach the device
- ❖ Easy to position–easy to operate
- ❖ Replaceable battery with charge level indicator
- ❖ Autonomous operation for 45 minutes (with one battery)
- ❖ Connections: external DC input, USB



EASY PULSE®



ARGUS® LifePoint

The reusable CPR feedback sensor

Monitoring the cardiac massage is made easy with the ARGUS LifePoint, which offers the following advantages:

- ❖ Waterproof (IP66) sensor
- ❖ Ergonomically shaped sensor for improved handling, simple positioning on the patient
- ❖ Easy connection to SCHILLER rescue devices for data transfer and power supply



ARGUS® LifePoint



MONITORING

- › ARGUS LCX
- › ARGUS LCM plus
- › ARGUS VS-100
- › ARGUS OXM plus
- › ARGUS OXM C
- › ARGUS PB-1000 / PB-3000

ARGUS® LCX

Patient monitor for intensive medicine

Ultra-flat and equipped with a brilliant 15" colour screen, this user-friendly patient monitor can be mounted easily on a wall or medical cart. The built-in thermal printer for 80 mm wide paper enables on-the-spot documentation of all important events and trends. The device has a capacity of two hours of mains-independent operation, making it an ideal intrahospital transport monitor.

The ARGUS LCX can be connected with the Multi Patient Consol.

- ❖ ECG (I-V1)
- ❖ NIBP
- ❖ SpO₂ with plethysmogram
- ❖ 1 temperature
- ❖ 2 invasive blood pressures
- ❖ EtCO₂ mainstream or sidestream with capnogram



ARGUS® LCX

ARGUS® LCM plus

Vital data patient monitoring

The SCHILLER ARGUS LCM plus monitor is designed for comprehensive vital data monitoring of adults, paediatrics and neonates.

It is suitable for intra-hospital transport as well as in the ward. The ARGUS LCM plus provides up to 12 ECG channels in diagnostic quality.

The ARGUS LCM plus can be connected with the ARGUS PRO Central Station.

- ❖ Excellent price/performance ratio
- ❖ Large, high-resolution colour LCD
- ❖ Low weight and compact design
- ❖ Simplified operation using direct function keys
- ❖ Up to 5 traces on screen
- ❖ 3-traces printer
- ❖ EtCO₂ mainstream or sidestream with capnogram
- ❖ SpO₂ (MASIMO or Nellcor)
- ❖ Non invasive blood pressure measurement
- ❖ Combination of two of the following parameters is possible: EtCO₂, IBP or temperature



ARGUS® LCM plus

ARGUS® VS-100

Blood pressure and vital signs monitor

Blood pressure and vital signs monitor, suitable for adults, paediatrics and neonates.

- ❖ Enhanced NIBP, temperature and SpO₂ accuracy
- ❖ Compact design (increased mobility)
- ❖ User-friendly interface (data output via USB)
- ❖ Built-in rechargeable battery
- ❖ Adult, paediatric and neonate application
- ❖ Internal thermal printer (option)
- ❖ Alarm system



ARGUS® VS-100

ARGUS® PB-1000 / PB-3000 OEM solutions

The parameter boxes record the most important vital parameters and are the perfect tools for a large number of medical applications.

The data can either just be displayed, or it can be used for further diagnostic purposes (e.g. catheter laboratory), allowing you to take full advantage of the parameter boxes' measuring functionality.



ARGUS® PB-1000

ARGUS® OXM plus

Portable pulse oximeter

The portable pulse oximeter ARGUS OXM plus is a compact, light and easy-to-use non-invasive oxygen saturation monitoring unit with pulse rate and trend data. It can be used as a stand-alone unit or handheld.



ARGUS® OXM plus

ARGUS® OXM C

Handheld pulse oximeter

The ARGUS OXM C pulse oximeter is designed to meet the requirements of many medical applications in various locations. It performs accurately, even in the case of motion artefacts and low perfusion.

- ❖ Enhanced SpO₂ accuracy
- ❖ 72 hours data memory
- ❖ 5 seconds set-up time
- ❖ 8 hours operating time with Ni-MH battery
- ❖ Suitable for adult, paediatric and neonate application
- ❖ RS-232 UART communication
- ❖ Visual alarm indicator
- ❖ High resolution backlit LCD
- ❖ Plethysmograph display
- ❖ Optional PC program for trend review



ARGUS® OXM C



MRI-COMPATIBLE MONITORING

- › **MAGLIFE Serenity**
- › **MAGLIFE light**

MAGLIFE® Serenity

A state-of-the-art monitoring system for MRI examinations

The MAGLIFE Serenity guarantees highest ECG quality during magnetic resonance imaging (MRI) scanning—even under strongest gradient influence. It monitors all vital parameters during anaesthesia in an MRI environment and is specifically designed for adults, children and neonates.

- ❖ Highest ECG quality even under strongest gradient influence
- ❖ Several gating outputs for optimal MRI triggering
- ❖ Core and skin temperature measurement by use of an optical sensor
- ❖ State-of-the-art gas analysis during anaesthesia
- ❖ Network compatibility (wireless LAN, fibre cable, LAN)
- ❖ Safe penetration of the Faraday cage
- ❖ MRI-compatible accessories
- ❖ **New:** Wireless SpO₂ option



MAGLIFE® Serenity

MAGLIFE® light

Safe day-to-day monitoring of MRI patients

MAGLIFE light is the ideal patient monitor for your routine MRI examinations. Compact and easy to use, MAGLIFE light does not require any installation and has been designed for daily use. MAGLIFE light can handle all your monitoring needs and is compatible with MRI scanners up to 3 Tesla. The sensors are suitable for all types of patients—adults, children and neonates.

- ❖ Indication of SpO₂, pulse, heart rate and non-invasive blood pressure values (Sys, Dia, MAP)
- ❖ Displays the most recent NIBP values
- ❖ 24-hour trend



MAGLIFE® light



MEDICAL IT

- › **SEMA3 Workstation**
- › **SCHILLER Server**

SEMA3 Workstation

New generation ECG data management system

SEMA3 is a workflow-driven diagnostic data management system with flexible support for different operating systems, database management systems and multiple languages.

Available in three tailored versions to suit the needs of your organization:

- ❖ SEMA3 Office (up to 4 workstation licenses)
- ❖ SEMA3 Professional (up to 20 workstation licenses)
- ❖ SEMA3 Enterprise (25 or more workstation licenses)

Features:

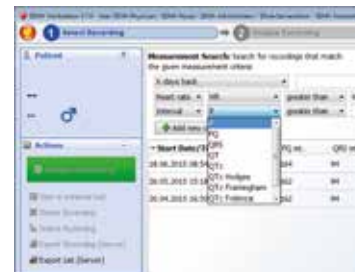
- ❖ Patient and recording management
- ❖ SCHILLER filter technology
- ❖ Integration with all PC-based devices, devices with SCM networking and MS-12 blue
- ❖ Resting ECG and resting rhythm review
- ❖ Review of exercise test data
- ❖ Review of resuscitation data
- ❖ Review of spirometry recordings
- ❖ Review of SCHILLER long-term blood pressure recordings (ABPM)
- ❖ Review of SCHILLER medilog long-term Holter ECG recordings
- ❖ Interoperability with external EMR, HIS and PACS systems
- ❖ EMR system interface (GDT)
- ❖ PDF export



ALL IN ONE SOFTWARE SEMA3 supports all recording types made by SCHILLER devices and facilitates your analysis of the data and waveforms with intuitive tools. Be it resting ECGs or ergometry, you have the overview on all recordings made for a patient.



INCREASED PRODUCTIVITY SEMA3 is based on simple workflows. The user is guided through work processes step by step and can therefore complete these processes with just a few clicks. Since only the necessary features are displayed for each workflow, the operation is extremely user friendly.



CODED STATEMENTS SEMA3 uses code-based statements and stores them in the database. This allows to search for recordings with specific acronyms as well for specific measurement values for research reasons.



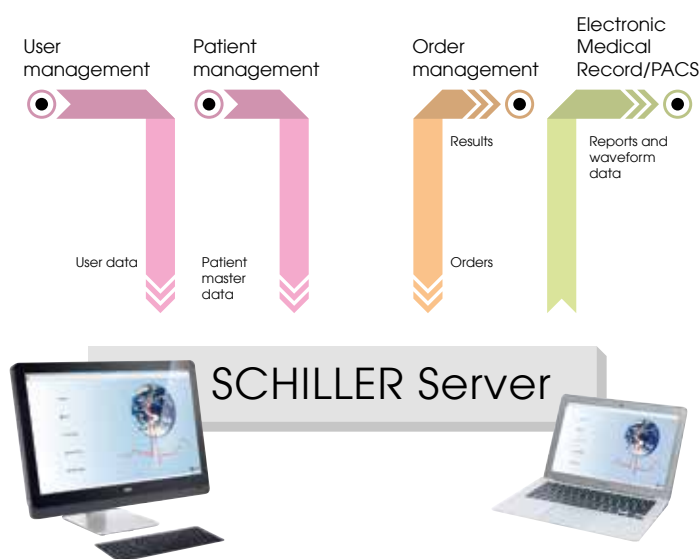
DICOM AND PACS SEMA3 recordings can be exported in the DICOM format and saved in a PACS archive. SEMA3 also supports the DICOM modality worklist functionality and is therefore able to communicate bi-directionally with a PACS server.

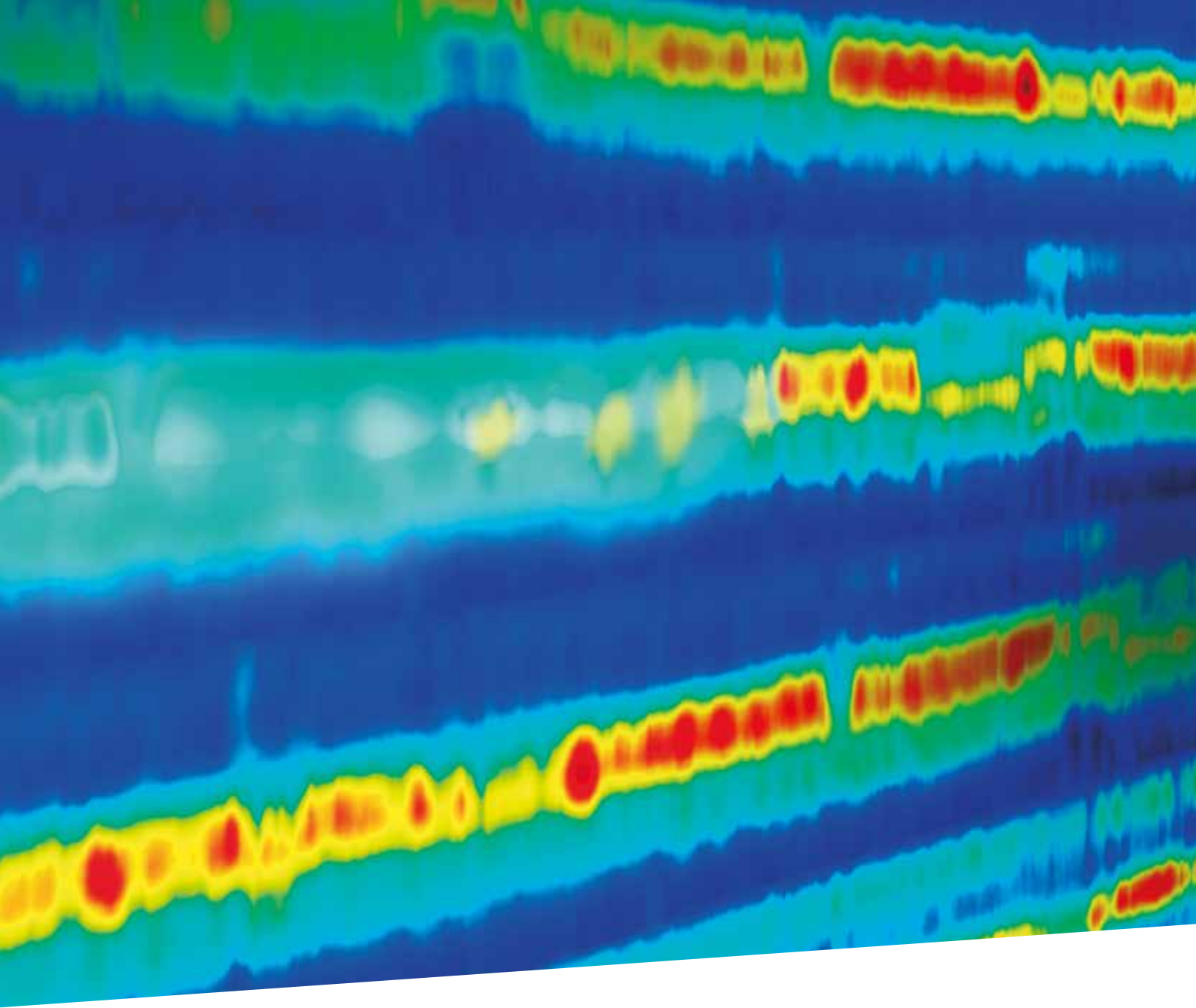
SCHILLER Server

Communication gateway

SCHILLER Server is a communication gateway which allows SCHILLER products and systems to exchange information with Hospital Information Systems (HIS) via Health Level 7 (HL7) messages or PACS system communication via DICOM standard.

- ❖ Automated import and export functions increase access to information, reduce manual data entry and minimize errors
- ❖ Imports patient demographics information via Admit/Discharge/Transfer (ADT) messages into the patient databases of the products
- ❖ Exports findings, validations and diagnostic data and waveforms (in PDF format) via Observation Result/Un-solicited (ORU/MDM/DFT) messages
- ❖ Supports the import of work items from a HIS or PACS system by HL-7 ORM messages or DICOM Modality Worklist
- ❖ Fully configurable to integrate with all Hospital Information Systems which implement version 2.x of the HL7 standard via file transfer, socket transfer or web services
- ❖ Supports seamless HIS integration of most SCHILLER diagnostic products
- ❖ Allows SEMA3 clients the connection to LDAP (Lightweight Directory Access Protocol) user management systems (like Microsoft Active Directory)
- ❖ Device management to check the status of all connected devices
- ❖ Device remote configuration and software update





DIAGNOSTIC ANALYSIS PROGRAMS

- › **HyperQ Resting**
- › **HyperQ Stress**
- › **SAECG**
- › **ETM**
- › **ETM Sport**
- › **HRV—heart rate variability**
- › **CCAA—Culprit Coronary Artery Algorithm**
- › **AF Toolbox**

HyperQ™ Resting

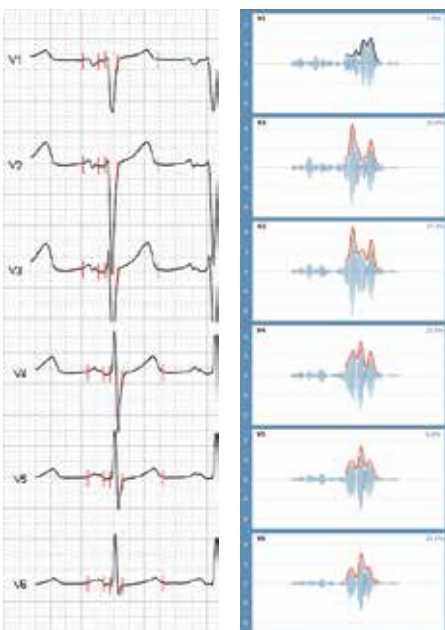
Non-invasive diagnosis of ischaemic heart disease

Early detection of acute coronary syndrome

Chest pain is one of the main reasons for hospital emergency department visits worldwide. Early risk stratification of patients presenting with chest pain and suspected acute myocardial ischaemia or infarction is a major clinical challenge.

Resting 12-lead ECGs, a mainstay in the management of acute myocardial ischaemia, is limited by low sensitivity, especially in cases of non ST elevation myocardial infarction and unstable angina.

- ❖ HyperQ Resting provides high accuracy, early detection and superior diagnostic value.
- ❖ No need for oversized expensive devices—extracts additional, previously unseen data from the standard 12-lead ECG.
- ❖ Suitable for emergency departments, emergency medical services, primary care clinics and telemedicine services.



PATIENT WITH POSITIVE HYPERQ AND ACS: 62 YEARS, FEMALE, ACS: ST-SEGMENT ANALYSIS SHOWS NO ABNORMALITIES. HOWEVER, THE HYPERQ ANALYSIS CORRECTLY DETECTS SIGNIFICANT ISCHAEMIA.

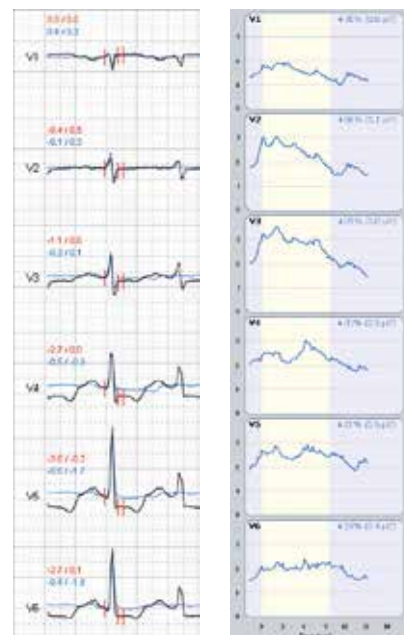
HyperQ™ Stress

Non-invasive diagnosis of ischaemic heart disease

Revolutionizing the detection of coronary artery disease

Coronary Artery Disease (CAD) screening is largely based on stress ECG testing that has a limited diagnostic accuracy, especially in women. Additionally, there are growing concerns over exposure to radiation and cutbacks on payment for costly cardiac imaging. HyperQ stress ECG testing provides a low-cost, non-invasive, radiation-free and highly reliable first line CAD diagnostic solution for private cardiology practices as well as cardiology departments in hospitals. HyperQ is based on solid scientific and clinical research and is FDA-cleared and CE-marked.

- ❖ Higher sensitivity in diagnosing ischaemia
- ❖ Fewer false alarms in non-ischaemic patients
- ❖ Performs equally well in women and men
- ❖ Provides clear results in patients with equivocal standard stress ECG test results



WOMAN WITH NEGATIVE HYPERQ AND ABNORMAL ST: 65 YEARS: ST-SEGMENT ANALYSIS SHOWS SIGNIFICANT ABNORMALITIES. HOWEVER, THE HYPERQ ANALYSIS CORRECTLY DETECTED NORMAL CORONARY ARTERIES.

SAECG

Analysis of signal-averaged ECG Estimating arrhythmic risk using SCHILLER's SAECG analysis

- ❖ Recognize high-frequency late potentials thanks to signal averaging and high-pass filtering
- ❖ Gain time thanks to straightforward measurement data recording: pushing one button is enough
- ❖ Comprehensive and clear evaluation within the shortest possible time
- ❖ QRS start and end of the vector amplitude can be edited on screen
- ❖ The optimum reference ECG lead for signal averaging can be defined automatically or can be selected by the user
- ❖ The software can be upgraded any time in the SCHILLER devices CARDIOVIT CS-200, CS-200 Ergo-Spiro, CS-200 Excellence as well as AT-10 plus

ETM

The innovative ECG analysis program Setting a new benchmark for the clinical application and quality of ECG analysis

Thanks to our long-standing experience in the area of ECG interpretation, our analysis programs can be used with SCHILLER ECG diagnostic and monitoring systems, as well as in combination with common devices by leading suppliers.

Since our products are fully compatible, they are suitable for a multitude of care and examination environments in hospitals and practices. Independent physicians as well as physicians and assistants in inpatient or outpatient care or intensive care units benefit from the unique analysis results.

- ❖ Complies with standards for the acquisition of 16-lead ECGs and the analysis of paediatric patients
- ❖ Automatic second opinion with proven clinical «Gold Standard» accuracy that was tested against a comprehensive ECG database comprising numerous diseases and deviations from the norm
- ❖ Arrhythmia analysis including atrial arrhythmias, pacemaker detection and QT measurement
- ❖ Suggestion of further results, supporting the careful, specific evaluation of ECG recordings
- ❖ Minimizes the time spent on the evaluation of ECG recordings
- ❖ Accurate, validated measurements of the heart rate, axes and intervals
- ❖ Interpretation criteria for paediatrics
- ❖ Gender- and age-specific interpretation criteria for acute myocardial infarctions in adults to ensure a high level of security for the detection of significant changes in the most critical blood supply areas
- ❖ Training support for ECG interpretation

ETM Sport

ECG interpretation module for athletes The first automated ECG interpretation module designed for athletes

The distinction between physiological and pathological ECG variations in athletes represents a major challenge. SCHILLER's ETM Sport, when used in sport aptitude tests, allows the number of false-positive results to be reduced while the sensitivity to detect heart disease remains unchanged.

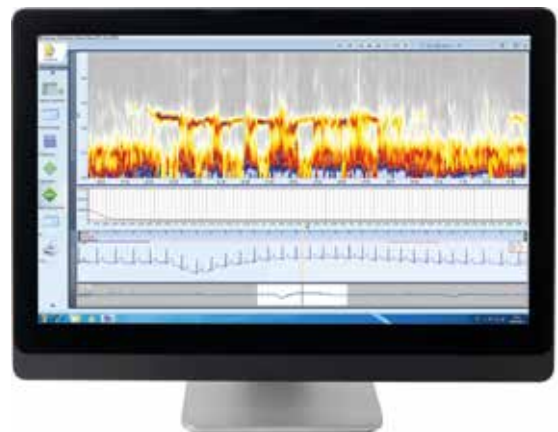
ETM Sport is based on the Seattle Criteria and is integrated in SCHILLER's stress test systems: CARDIOVIT CS-200 Excellence, CS-200 Touch and CS-200 Office.

HRV—heart rate variability

HRV and the autonomic nervous system

Fire of Life™ is a very intuitive visual presentation of frequency-domain HRV that makes the assessment of 24-hour results fast and simple.

As the heart rate is controlled by the autonomic nervous system, the condition of the autonomic nervous system can be assessed through an analysis of the heart rate. It can be used very effectively in the occupational health sector to control the stress burden and sleep quality and also in sports medicine to check the recovery process.



CCAA—Culprit Coronary Artery Algorithm™

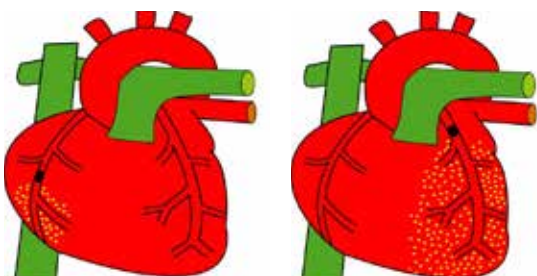
Detection of the location of the coronary obstruction in patients with acute chest pain and thereby the size of the cardiac area at risk.

Effective use of the 12-lead ECG to optimize diagnosis and management of patients with acute chest pain

The optional SCHILLER CCAA software developed by Professor Hein Wellens and implemented in our ECG devices allows the identification of the site of obstruction in the coronary artery and thereby the size of the cardiac area which is threatened to be lost if coronary flow is not restored.

That information is of critical importance in decision-making about optimal management of patients with acute chest pain both outside hospital and in the emergency room identifying patients in need of admission to a hospital where a percutaneous coronary intervention (PCI) can be performed.

- Cost-effective, quick pre-hospital decision-making regarding next treatment steps
- Identifying patients requiring coronary reperfusion therapy (PCI/thrombolysis)
- Limiting duration of cardiac ischaemia and thereby damage to the heart muscle



THE CLOSER THE OCCLUSION SITE TO THE ORIGIN OF THE CORONARY ARTERY, THE LARGER THE SIZE OF THE AREA AT RISK

AF Toolbox

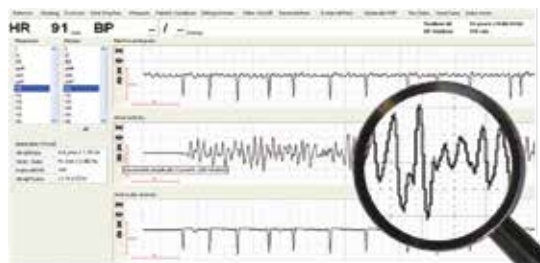
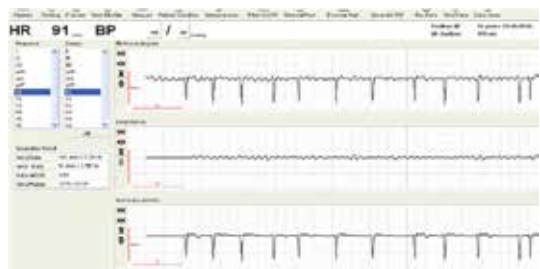
Detection of atrial fibrillation

Zoom function for the easy detection of atrial fibrillation

The medical tool AF Toolbox allows showing the atrial activities in a quality that so far has only been achieved by invasive methods.

3 steps of the AF Toolbox:

- Step 1: ECG recording
- Step 2: Separation
- Step 3: Zoom





SCHILLER

The Art of Diagnostics

SCHILLER. We save lives.



Americas
SCHILLER Americas Inc.
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