Solar GI

Intelligent Gastrointestinal Manometry

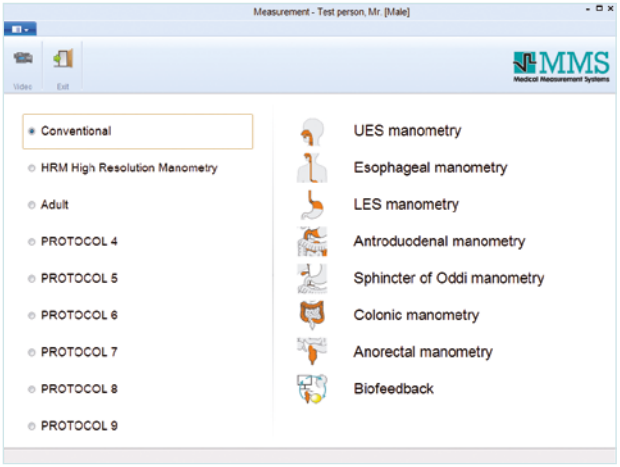
- Complete GI Motility testing
- Ease of use for hospitals and clinics
- Customized manometry solutions

LABORIE

MMS
Medical Measurement Systems

Solar GI Highlights

- Digital plug-and-play system measuring more than 60 channels including, pressures, Impedance, swallow & respiration, pH and EMG
- Complete measurement and analysis of gastrointestinal (GI) tract motility disorders
- High Resolution Manometry and High Resolution Impedance (HRIM) capabilities
- Customized results, reports and standardized letters
- Quick and easy access to extensive patient data
- Solar GI software available in more than 15 languages
- Fully upgradeable with neurology, video (Swallow studies & Defecography) and networking
- Expandable for research studies such as TMPD, Barostat and colonic manometry



The Solar GI is well-suited for basic examinations, as well as for research purposes

The remote control allows you to stay close to your patients. Just four buttons will guide you through your GI study

Introducing the Solar GI: Complete GI motility testing

Versatile even in standard versions

Laborie offers the complete solution for stationary motility testing. Solar GI is a state-of-the-art system offering all of the tools needed for modern manometry examinations. The plug-and-play design, developed in close co-operation with leading university hospitals, provides incomparable flexibility in configuring a system to meet all of your specific diagnostic needs.

Extended database

An extensive patient database enables easy entry and retrieval of patient demographics. Filter and query options facilitate the selection of patient groups for statistical analysis. For example, groups can be made by examination type, gender, date of birth and examination parameters.

Diagnosis and comment functions can be used to generate memos. All patient information is stored in one location, so there is no need for other text editor programs. Raw data, patient demographics and examination parameters can be selected and exported quickly and easily to other text editor and database programs.

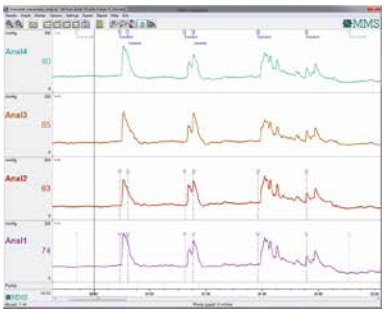
Esophageal Manometry

The esophageal manometry study is used to assess the function of the eso- (LES) and the Upper Esophageal Sphincter (UES). Esophageal motility disorders such as achalasia, diffuse esophageal spasm and nutcracker esophagus can be diagnosed, as well as disorders caused by reflux or scleroderma.

The post procedure analysis software provides automatic analysis of all esophageal contractions, containing peak and mean pressures, areas, slopes, duration, velocity and propagation. To prepare for a pH study, you can easily locate the LES and measure the LES length.

Anorectal Manometry

The anorectal manometry study is used to objectively assess the function of the rectum and the anal sphincter. You can easily perform resting, squeeze, cough and push tests, as well as determine the functional length of the anal canal, rectal sensitivity, inhibitory reflex, and rectal capacity and compliance.

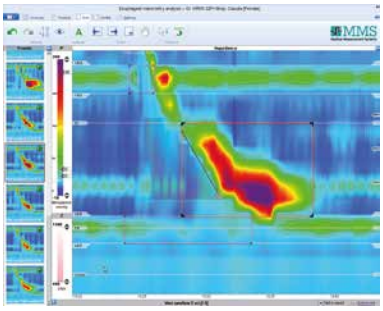


4 channel anorectal manometry

More detailed assessment of radial and longitudinal pressure profiles can be obtained from a 3-dimensional Vector Volume Plot (3D-VPP).

High Resolution Manometry (HRM)

More detailed esophageal information can be obtained from HRM Clouse contour plots™. This unique method consists of measuring multiple pressures simultaneously and presents the results in a visual way. LES and UES resting pressures and LES residual pressure are automatically marked. Esophageal manometry has never been so easy. Combined with Impedance channels, Solar GI provides information of esophageal contractions and bolus presence in one simple test.



Up to 36 pressures and 16 Impedance channels in the esophagus showing one swallow

Biofeedback Pelvic floor training

The Solar GI can include Biofeedback in which signals from the pelvic floor are displayed in real-time to the patient as a friendly, patient-responsive animation. Biofeedback training helps to develop beneficial and conscious control over body functions. Several scenes and animations are available.

24 Hour Impedance-pH monitoring

Laborie offers two ambulatory pH recording units. The Ohmega pH recorder measures gastro-esophageal acidic refluxes. The Ohmega Impedance-pH recorder monitors acidic, weakly acidic and non-acidic refluxes with pH and Impedance channels. Pressure channels can be added to determine chronic cough. The Ohmega is a very easy tool to use in order to diagnose Gastro Esophageal Reflux Diseases (GERD).

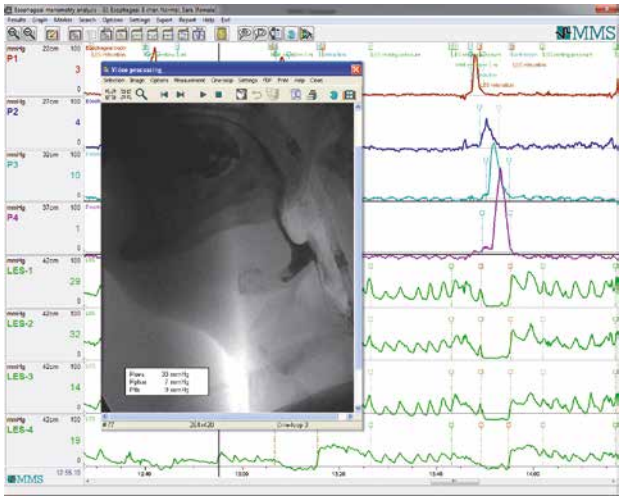
The Virtual Instructor Program™ (VIP) of the Ohmega, guides users through the calibration and recording procedure. As a result, GERD monitoring can be completed even with minimal training. Bluetooth® capabilities provide online view of recorded data. Intermediate review gives the possibility to check and review the data during an examination.

Ohmega total esophageal reflux monitor

Extended Functionality

Video Manometry

Advanced image digitizing (X-ray) in combination with the Solar GI, facilitates the diagnosis of swallow and defecation disorders. Single video images or cine loops are digitized in real-time and are synchronized with the pressure/impedance tracings.



GI Research Studies

Laborie has many years of experience offering customized solutions in the GI research field. Well known university hospitals located all over the world use the Laborie GI Systems for various functions, such as:

- Stationary pH studies
- Small bowel (Antroduodenal) manometry
- Sphincter of Oddi manometry
- Colon manometry
- TMPD
- Barostat
- EGG

The Solar GI software platform offers additional functions for statistical analysis and presentations, such as:

- Extensive filter and query options
- Easy sorting and selection of patient groups for statistical analysis
- Patient demographics and examination data that can be exported to a text editor, spreadsheet or database software
- Graphs that can be exported to PDF as well as to JPEG and BMP images
- Easy integration of graphs and results for Microsoft® PowerPoint presentations

Neuro GI

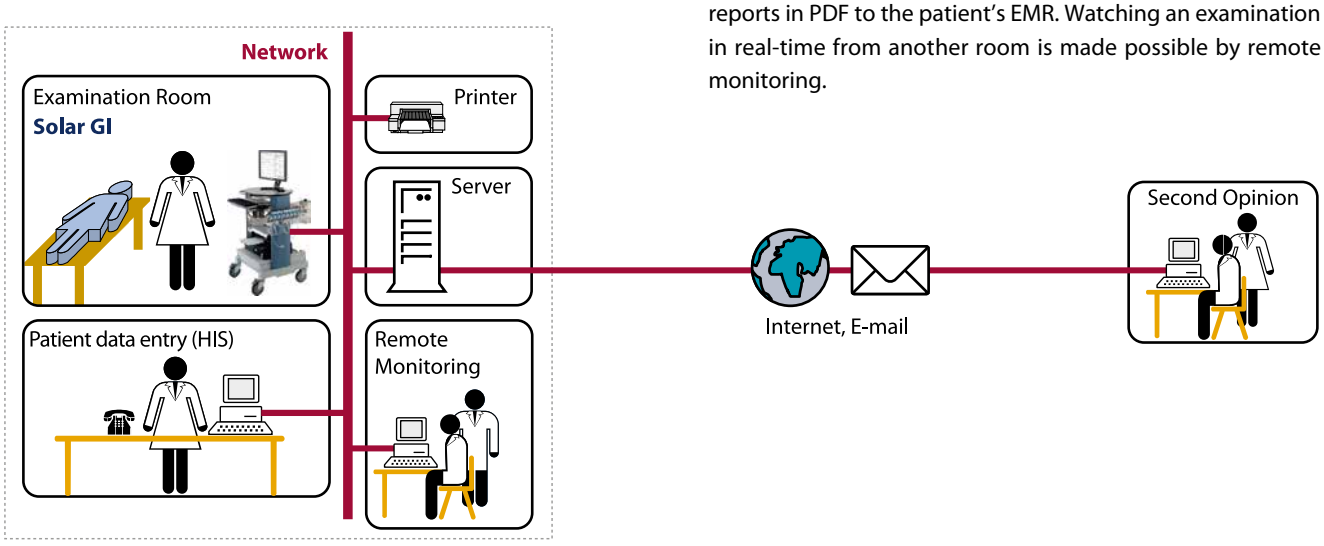
The Neuro Module allows to study the motor innervations of the sphincters and the pelvic floor, as well as the sensory innervations of the pelvic structure. A number of measurement programs are available as the Neuro Module can easily be added to the Solar GI.

- Free run EMG
- Pudendal nerve stimulation
- Motor nerve conduction
- Sacral reflex
- Sensory threshold*

**not available in the USA*

Networking and HIS-links

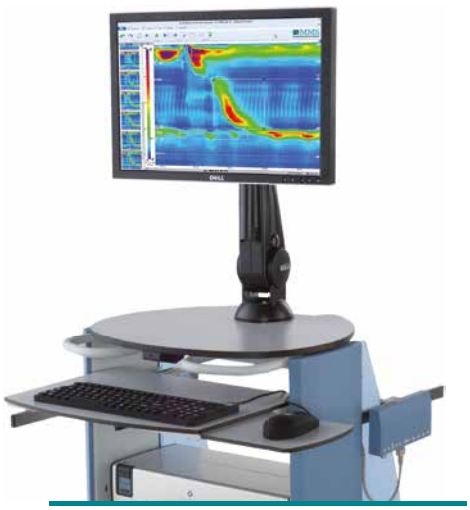
A diagnostic system hardly ever stands alone. It needs links with other hospital departments as well as the outside world. Besides extensive networking capabilities, Laborie offers proven connectivity to the Hospital Information System (HIS). Retrieving patient demographics from the HIS and sending reports in PDF to the patient's EMR. Watching an examination in real-time from another room is made possible by remote monitoring.



Solar Customized System Solutions

Air-charged catheters

Wireless catheter puller for esophageal and anorectal studies



Solar GI Compact

Solar GI Compact is a cost-effective system offering all of the tools needed for esophageal and anorectal manometry measuring up to 4 pressures.
The plug-and-play concept provides unrivalled flexibility in configuring a system to meet your specific needs. Solar GI Compact is also compatible with easy-to-use air-charged catheters.

Solar GI

Solar GI is a state-of-the-art manometry system offering all of the GI diagnostic tools needed for today's medical professionals. Solar GI provides functional testing for the complete gastro-intestinal tract, measuring from 4 to 36 pressure channels. Solar GI can easily be adapted to both your current situation and your future requirements such as HRM, Impedance and Neuro-GI tests.

Solar GI HRM

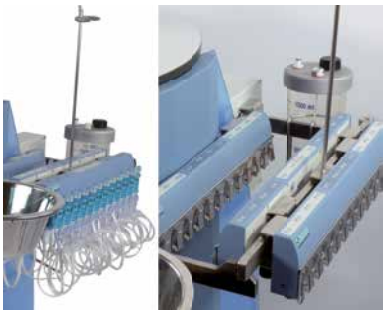
Solar GI HRM (High Resolution Manometry) measures from 16 to 36 pressures in the esophagus simultaneously. HRM means easy placement of the catheter, a quicker procedure and detailed assessment of all relevant data for the entire esophagus. Rapid data interpretation can be established by Clouse contour plots™.

Solar GI HRIM

Solar GI HRIM (High Resolution Impedance Manometry) measures up to 16 Multi-channel Intraluminal Impedance (MII) channels combined with multiple pressures. Impedance is a method to see the presence of bolus transit. Unlike Barium swallows, there is no radiation exposure. With Solar GI HRIM you can concurrently assess muscular activity & bolus transit from a single probe in one simple test.

Solar Perfusion Pump

The Laborie Solar Perfusion Pump (MPP) is a water-perfused manometric pump. Together with the Solar GI, you can create a system that can be used for manometric studies of the gastro-intestinal tract.



The Solar Perfusion Pump (MPP) will provide all of the functions regarding the perfusion of water and measuring pressures in a patient's body.

The MPP can be mounted to an accessory rail on the Solar Trolley. It can measure up to 36 pressures. The MPP is very easy to clean and without a doubt the most cost-efficient and silent perfusion pump on the market.

Customized solutions

Solar GI offers a broad range of possibilities to customize a complete system to suit your needs.

- The modular plug-and-play design allows you to easily upgrade the system
- Pre-defined and user-definable examinations protocols save time
- Extended catheter library shortens setup time
- Flexible report generator allows user to define and customize personal reports
- User-definable templates determine the contents and layout of standard letters
- Patient database fields are user-definable
- Studies can be saved as PDF, which makes it extremely easy to archive on a hospital network

Laborie: Best Customer Solution

Solar GI Technical Specifications

Channels

- 1-36 Pressure channels
- 1-16 Impedance channels
- 1-4 pH
- Swallow and respiration channel
- Multiple EMG channels
- High frequency EMG channels
- Neuro Stimulation
- TMPD
- Barostat input

Examinations

- UES, Esophageal body, LES, Sphincter of Oddi, Antroduodenal (small bowel), Colon, Anorectal (3D-VVP), Biofeedback

Solar software

- Extensive patient database
- Includes up to 9 investigation protocols
- Displaying and printing curves, results and reports
- User-configurable reports (MMS Reporter)
- Easy archiving, PDF (backup)

Hardware Diagnostics

- Simplifies maintenance because of automatic testing of hardware modules

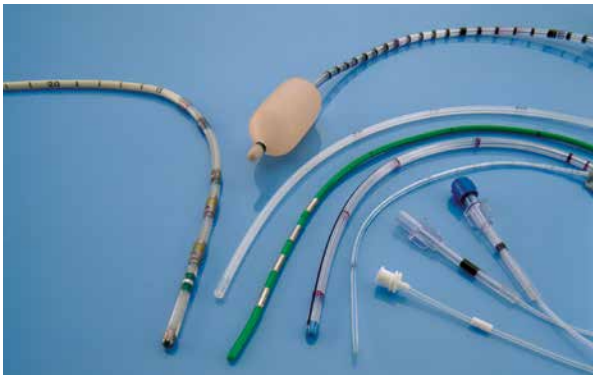
Operation

- Infrared remote control and PC keyboard

Complete range of catheters

The Solar GI can be used in combination with a complete range of catheters and accessories, for adult and pediatric studies. Because of the extended catheter library and measurement protocols, all catheters are automatically configured at the start of the study.

- A variety of water perfused pressure catheters
- Single-use and multi-use water perfused catheters
- Solid state pressure catheters
- Air-charged catheters
- Pressure/Impedance catheters
- Customized catheters for research and clinical use
- Swallowing and respiration sensors
- Disposable and reusable needle/surface electrodes
- Stimulation electrodes for Solar GI Neuro module



Laborie is offering a broad range of catheters

USA:
Tel.: +1 802 857 1300
Email: usmarketing@laborie.com

EUROPE / INTERNATIONAL:
Tel.: +31 53 480 3700
Email: info@laborie.com

HEADQUARTERS:
Tel.: +1 905 612 1170
Email: marketing@laborie.com

www.laborie.com
www.mms-gi.com

50th LABORIE ANNIVERSARY

MMS Medical Measurement Systems