

# SDT270

the evolution of ultrasound



the evolution of ultrasound



**SDT270**

the evolution of ultrasound

# the Evolution of Ultrasound

## **SDT270SB – Static/Basic**

- The device measures ultrasound in static dB $\mu$ V values
- Can be upgraded to higher level

## **SDT270SS –Static Storage**

- The device measures ultrasound in static dB $\mu$ V values
- The device stores up to 4000 measured static values to an internal node tree
- The node tree contains 20 nodes named node1 to node20
- Stored data can be viewed on the LCD of the device
- Can be upgraded to higher level

## **SDT270SD – Static/DataDump**

- The device measures ultrasound in static dB $\mu$ V values
- The device stores up to 4000 measured static values to an internal node tree
- The node tree contains 20 nodes named node1 to node20
- Stored data can be viewed on the LCD of the device
- Stored data can be downloaded to PC via DataDump program as XML format
- Can be upgraded to higher level

## **SDT270SU – Static/UAS**

- The device measures ultrasound in static dB $\mu$ V values
- The device can store measured static values to a custom node tree
- The custom node tree is defined and controlled by the UAS software
- Stored data can be viewed on the LCD of the device
- Stored data can be downloaded to PC via UAS software
- Measured data that triggers an alarm is viewed immediately on LCD of device
- Requires at least one licensed seat of UAS Static
- Can be upgraded to higher level

## **SDT270DD – Static/Dynamic/DataDump**

The device measures ultrasound in static dB $\mu$ V values

The device measures and records ultrasound as dynamic wav files

The device can store static and dynamic data to an internal node tree

The node tree contains 20 nodes named node1 to node20

Stored data can be viewed on the LCD of the device

Stored data can be downloaded to PC via DataDump program as XML format

Stored dynamic data can be downloaded and placed in a report folder on destination PC

Can be upgraded to higher level

# SDT270

the evolution of ultrasound

## **SDT270DU – Static/Dynamic/UAS**

The device measures ultrasound in static  $\text{dB}\mu\text{V}$  values

The device measures and records ultrasound as dynamic wav files

The device can store measured static values to a custom node tree

The custom node tree is defined and controlled by the UAS software

Stored data can be viewed on the LCD of the device

Stored data can be downloaded to PC via UAS software

Surveys, Alarms, and Operator ID can be uploaded to device via UAS software.

Measured data that triggers an alarm is viewed immediately on LCD of device

Requires at least one licensed seat of UAS Suite

SDT270





# SDT270

the evolution of ultrasound

## The evolution of ultrasound

### Powerful ultrasound for PdM professionals

The **SDT270** represents an evolution for PdM and Reliability professionals. Sporting many firsts, the **SDT270** is consistent with our mission to design progressive and smart instruments. The first portable ultrasound instrument to include both a built-in temperature sensor and a laser tachometer, also has an onboard SQL database to capture and manage survey data.

### Accurate and comparable wave files

SDT270 uses True Amplitude to give ultrasound inspectors, for the first time, the ability to maintain a database of accurate sound files. Each wave file is sampled 250,000 times per second. The result is clear, accurate, and comparable time signals stored in the SDT270's massive internal memory.

### Remote support and training

An ultrasound detector that connects to the Internet offers new levels of support options. Remote access for support, training, and measurement triggering brings new possibilities to your ultrasound program.

### Two channel inputs

Two channel sequential measurement means multiple sensors can connect to your SDT270 for faster collection of data. Store static data (dB $\mu$ V), record dynamic sound files, measure temperature and RPM, and acceleration without exchanging sensors. The SDT270 redefines intelligent instrument design to make more efficient use of your time.

### "Building Blocks" concept adds flexibility

The **SDT270** remains true to our reputation for intelligent instrument design. SDT's "building blocks" concept combines options for hardware flexibility, software for data management, and sensors that promote ergonomics and ease of use. The **SDT270** in combination with Ultranalysis Suite maintains simplicity for those who need it, while providing sophistication for those who want it.



### SDT270's upgradeable platforms

The SDT270 Platform gives customization with the opportunity to upgrade as your program grows. Choose from six base formats, then add sensors and software to build a collector unique to your needs. SDT270 is even more powerful with UAS software. UAS forms a synergistic partnership between your SDT270, your PC, and your PdM team.

### UAS - Ultranalysis Suite

UAS manages the collection, processing, and analysis of data measured by the SDT270. It's a library to store and organize info that's easy to retrieve. UAS manages static data (dB $\mu$ V, °C or °F, RPM, SCFM, dBA), as well as dynamic data (ultrasound signals for time and spectrum analysis). UAS's tree structure allows for as large a database as you need, with the ability to organize smaller surveys so you can set your own pace. Synchronous databases resident on both your PC and your SDT270 allows on-the-fly creation of survey points.



**Ultranalysis™ Suite**  
Our Most Powerful Ultrasound  
Data Management Software Yet

Defective Bearings?



MCC Panel Faults?



Pump Cavitation?



Condenser Leaks?



Steam Leaks?



Water Leaks?



## No matter what your application...WE HEAR MORE

# Choose your platform...

At SDT we recognize each customer's ultrasound needs are as unique as they are. So we designed an ultrasonic instrument that can be configured to meet your current needs and reconfigured as those needs change. There are 13 pre-defined kits to choose from depending on your applications. Whether you are a Leak Surveyor, a Lube Technician, a Mechanical Inspector, an Electrical Inspector, a Steam Systems Inspector, or involved with Tightness Testing, SDT has a "basic" or "pro" model that's right for you. And if you don't find what you're looking for on our list of pre-defined application driven kits... no problem, let's create a custom kit built just for your ultrasound program.



## SDT270 Base Versions

	SB	SS	SD	SU	DD	DU
<b>MEASUREMENTS</b>						
Static (dBμV, °C/F, RPM, dBA, SCFM)	•	•	•	•	•	•
Dynamic (wave file recording)	-	-	-	-	•	•
<b>MEMORY</b>						
Generic 20-Node Tree	-	•	•	-	•	-
Unlimited User-Defined Tree with UAS	-	-	-	•	-	•
<b>COMMUNICATION</b>						
DataDump PC Transfer	-	-	•	-	•	-
SQL Auto-Synchronizing database to UAS	-	-	-	•	-	•
• = standard feature    - = feature not available with version						

# ... then add your sensors and accessories

### Contact

Resonant Sensor (RS1 Needle)  
Magnetic Sensor  
Threaded Sensor (RS1 Thread)

### Inspection Applications

Mechanical  
Slow Speed Bearings  
Steam Traps & Valves  
Hydraulic Systems  
Gearboxes  
Condition Monitoring  
Acoustic Bearing Lubrication  
Permanent Mount Monitoring  
Quality Control Projects

### Airborne (Distance)

Parabolic Dish with Laser Site  
Extended Distance

### Inspection Applications

Compressed Air Surveys  
Electrical Inspections
 

- Transformers
- Substation
- Insulators
- High KV T&D Lines
- RF Interference

 Tightness Inspections  
Quality Control Projects

### Airborne (Precision)

Internal Ultrasonic  
Flexible Wand

### Inspection Applications

Compressed Air Surveys  
Mechanical Inspections  
Belt Drives and Couplers  
Electrical Inspections
 

- Switch Gear Panels
- Motor Control Centers
- Arcing, Tracking, Corona

 Tightness Inspections
 

- Vehicles, Ships, Trains
- Cleanrooms, Autoclaves

### Built-In Multi-Functional

Non-contact Temperature  
Non-contact Tachometer

### Inspection Applications

Bearing Condition Monitoring  
Slow Speed Bearings  
Bearing Lubrication  
Steam Trap Inspections  
Variable Speed Drives  
Building Envelope Inspections

### External Multi Functional

Class II Noise Sensor (dBA)  
Mass Air Flow Sensor (SCFM)  
Thermocouple Interface (°C/F)

### Inspection Applications

Noise Level Monitoring  
Air Leak Quantification  
Bearing Condition  
Bearing Lubrication  
Steam Trap Inspections  
Contact Temperature Measure

### Ultrasound Transmitters

200mW Bisonic Transmitter  
8-Zone Multi Transmitter

### Inspection Applications

Tightness Inspections
 

- Vehicles, Ships, Trains
- Cleanrooms, Autoclaves
- Building Envelope
- Air Intake Leaks
- Turbo Charger Leaks
- Aerospace and Fuselage
- Wind Noise/Water Leaks



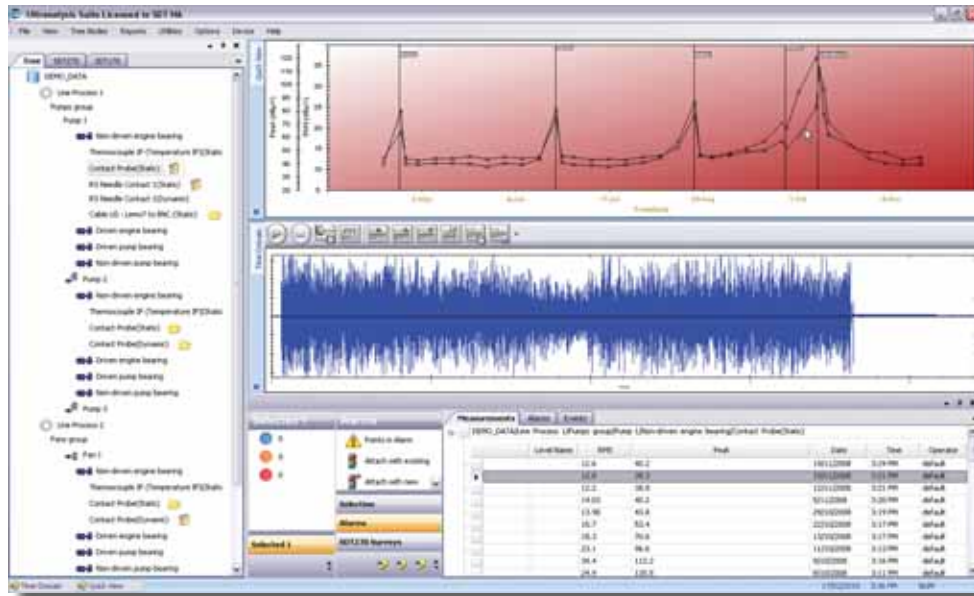
# Ultranalysis Suite

Powerful software to manage intelligent hardware

There's a lot of powerful measurement capabilities built into the SDT270. Ultranalysis™ Suite (UAS™) software is designed to help you manage the valuable PdM information SDT270 gathers from your critical assets. UAS forms a synergistic partnership between your SDT270, your PC, and your PdM team. UAS features a familiar 3-pane workspace. In the left pane create a tree structured

database to host your plant's critical assets. This is where you define multiple measurement nodes to organize the types of data SDT270 should collect, schedule when it must be collected, and by whom. You can choose to attach alarms now or later, based on three criteria; Absolute, Safe, and Relative. In Survey Mode, SDT270 alerts in the field when any alarm is tripped. Your SDT270 is capable of collecting both

Static data (dBμV, °C/F, RPM, dBA, SCFM) and Dynamic wave files of any length. Static data is plotted over time and displayed in the main pane. Dynamic wave files are viewed in time or spectrum view. The bottom pane is the control console for UAS. Sort data using virtually any imaginable filter. For instance, run a sort based on last measured points or produce a list of past due measurements. Use this workspace to



produce a list based on similar machines. For example a group of sludge pumps in a water treatment plant can be displayed so you can compare and overlay their data simultaneously. Inspectors use this tool to

quickly set benchmarks and spot anomalies amongst similar machines. Its a great way to spot trends and use those trends to set alarm criteria. For ultrasound programs at their infant stage the bottom pane provides

invaluable control of any sized database. The SDT270 in combination with UAS Suite maintains simplicity for those who need it while providing sophistication for those who want it.

# SDT Ultrasound Training

The cornerstone of an effective ultrasound program



"Investing in ultrasound equipment without investing in training is like buying a Corvette and driving it in first gear; you can make it roll but you will never make it perform."

## Invest in Training

Companies that invest in training see greater participation across more departments. Ultrasound programs have better endurance and the return on investment is much sooner. Training is the foundation of an effective, and long lasting program. With more than twenty years experience training clients all over the world, SDT recognizes that every program is different and every inspector unique.

## Certification

Certification training courses are a 2½ day comprehensive mix of theoretical and practical learning. We strive to provide the maximum transfer of knowledge and skills

identified by ASNT's Recommended Practice SNT-TC-1A. Ultrasound theory is matched against the many applications you will encounter in the field.

Certification training is offered in both public and private settings. Public classes are a mix of inspectors from many companies resulting in an idea exchange that is productive and enriching. Private classes are held on-site and are equally rewarding since the instructor can address issues specific to your facility. Call today to discuss which is right for you.

## Implementation

Implementation training is an on-site consult by a corporate training specialist. Here you

form a strategic alliance with a global team of ultrasound coaches committed to getting your ultrasound program on track from day one. The curriculum is customized to your needs and goals.

Together we build an understanding of your applications. Our experts work with you to develop an effective strategy including definition of goals, development of procedures, software training and database setup, and a metric for measuring success.

A follow up site visit helps re-evaluate your program and ask questions from your coach. It is also an opportunity to refresh inspector's knowledge and train any new hires. Call today to find out which program is for you.

## Training Options

### IMPLEMENTATION

- 1 Day Onsite
- 2 Day Onsite
- 3 Day Onsite
- 4 Day Onsite

### CERTIFICATION Level 1 & 2

- Public Venue
- Private Onsite



From the classroom



to the factory floor



# Technical Support Services

## Protect your investment with SDT's flexible support contracts

SDT Technical Support Services are here to ensure that your SDT products and software operate to the standard you expect and that you benefit from the most current firmware and software. SDT designed a versatile suite of support services aimed at helping you reach the goals of your ultrasound program. Our support contracts protect your technology investment. We focus on maintaining your ultrasound assets so you can focus on maintaining your company's assets.

SDT270 SoundCare Warranty	Ultranalysis SoftCare Support Plan
<b>SDT270 SOUNDCARE BASIC</b>	<b>UAS SOFTCARE BASIC</b>
Every SDT270 comes with our industry leading 2 year** warranty which protects your investment against manufacturer's defects including workmanship and software issues.	SoftCare Basic is included with every UAS license. You are entitled to industry-leading technical support for 6 months. <ul style="list-style-type: none"> <li>• 6 months support by email</li> <li>• 6 months software rejuvenation</li> <li>• 6 months access to online user's group</li> </ul>
<b>SDT270 SOUNDCARE<sup>3</sup> ADVANCED</b>	<b>UAS SOFTCARE<sup>3</sup> ADVANCED</b>
SoundCare <sup>3</sup> Advanced is a 3 year extended warranty contract that ensures your SDT270 and all sensors are in original working condition. Included in the service offering <ul style="list-style-type: none"> <li>• preferred pricing on yearly calibrations, a 25% savings</li> <li>• no haggle repairs</li> <li>• priority turnaround on all service requests</li> <li>• free battery replacement at the end of contract</li> <li>• access to firmware updates for the duration of the contract</li> </ul>	SoftCare <sup>3</sup> Advanced entitles you to industry-leading technical support for 3 years* <ul style="list-style-type: none"> <li>• 3 years support by email, phone, and remote PC access</li> <li>• Registered access to SDT's technical experts, problem resolution, support, and critical problem acceleration</li> <li>• 3 years software rejuvenation</li> <li>• 3 years access to online user's group – Registered access to SDT's online user's group community website</li> <li>• One Training Voucher*</li> </ul>
<b>SDT270 SOUNDCARE<sup>6</sup> PRO</b>	<b>UAS SOFTCARE<sup>6</sup> PRO</b>
SoundCare <sup>6</sup> Pro is a 6 year extended warranty contract that ensures your SDT270 and all sensors are in original working condition. Included in the service offering <ul style="list-style-type: none"> <li>• preferred pricing on yearly calibrations, a 25% savings</li> <li>• no haggle repairs</li> <li>• priority turnaround on all service requests</li> <li>• new battery replacement in year three of contract</li> <li>• free battery replacement at the end of year 3 and year 6 of contract</li> <li>• access to firmware updates for the duration of the contract</li> </ul>	SoftCare <sup>6</sup> Advanced entitles you to industry-leading UAS technical support for 6 years* <ul style="list-style-type: none"> <li>• 6 years support by email, phone, and remote PC access</li> <li>• Registered access to SDT's technical experts, problem resolution, support, and critical problem acceleration</li> <li>• 6 years software rejuvenation</li> <li>• 6 years access to online user's group – Registered access to SDT's online user's group community website</li> <li>• One Training Voucher*</li> </ul>
*see service terms and conditions for details **batteries are warrantied for 6 months. Warranty does not include shipping, handling and importation.	*see service terms and conditions for details

### SDT Ultrasound Systems

PO Box 682, Cobourg ON Canada K9A4R5  
 Tel - 905-377-1313 Fax - 905-377-1402  
 Toll Free Canada & USA 1-800-667-5325  
 Toll Free Fax Line 1-800-224-1546  
[www.sdtnorthamerica.com](http://www.sdtnorthamerica.com)  
[info@sdtnorthamerica.com](mailto:info@sdtnorthamerica.com)

#### Our promise to be our best for you

At SDT we believe we have a responsibility to produce products that help our global economy while at the same time sustain our planet for future generations. Giving our best to you is more than just a commitment, it is our promise.

Your SDT Certified Partner