

# SoundCTRL Data Acquisition And Analysis

## Handheld Data Collection For Condition Based Monitoring



**The SoundCTRL Software  
Program Is Installed To A  
Pocket PC (PDA) For Portable  
Data Acquisition**

The SoundCTRL Data Acquisition and Analysis System provides maintenance personnel with the capability to better monitor, evaluate, and diagnose the condition of critical mechanical equipment. Unplanned downtime and lost production can be avoided with this state-of-the-art software.

The handheld SoundCTRL System connects directly to the CTRL UL101 Receiver for an easy one-step inspection-collection process. SoundCTRL recognizes the ultrasonic signals received by the UL101 and provides immediate display and analysis of sound characteristics to help determine the condition of the component under test.

### **Record and store signals produced by critical equipment**

The SoundCTRL System is attached to the UL101 Ultrasound Receiver in order to record the output sound signatures produced by mechanical equipment. The sound is recorded as wave files and can be uploaded to the desktop for benchmarking and comparisons.

### **Get instant analysis of the component under test**

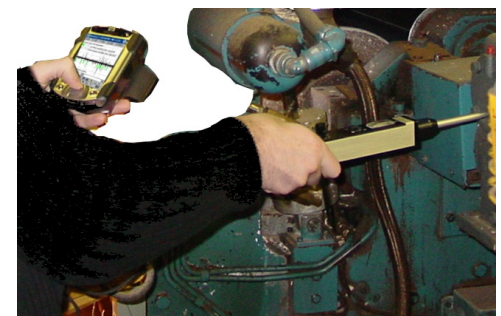
While recording the sound output of the UL101, the SoundCTRL System provides real-time display of the sound wave. In addition to the amplitude-time display, SoundCTRL calculates the overall amplitude using RMS (Root Mean Square) and indicates key points of interest, called crackles, using specially developed algorithms. The software provides the necessary tools to help determining the condition of bearings, gearboxes, motors, compressors, and more.

### **Integrate the UL101 with InCTRL for sharing information and reporting**

Ultrasound wave files recorded from the UL101 may be stored locally using the SoundCTRL desktop software. The wave files may also be uploaded to InCTRL, a web-based data management and reporting system, for a complete equipment management and reporting integration solution.

### **Organize data collection and normalize test conditions**

The wave files are identified by the location and equipment ID. SoundCTRL also maintains separate fields for date and time of recording, UL101 control settings, and the equipment operating parameters. Accurate data capture and analysis has never been easier. Once the baseline has been set, you can use the original recording to preload data fields of future recordings and to ensure the operating conditions remain the same.



## Specifications

### License

Windows Pocket PC License  
Windows Desktop PC License

### Minimum Requirements:

Pentium 200 with 64 MB memory  
10GB hard disk  
Microsoft Windows 98/ME/ NT/2000/XP

### PC Interface:

USB  
Serial

### Weight:

PocketPC: 8 oz

### Data Storage:

Typical: 100 Wave Files (312KB each)  
Upgrade: Flash Drive

### Data Capture:

Wave files output from UL101 Receiver  
Date/Time of Recording  
Location  
Equipment ID  
Comment Fields (2)

\* Stethographics, Inc develops the SoundCTRL software exclusively for CTRL Systems, Inc.

\*\* The CTRL UL101 is sold separately. Please contact CTRL Systems, Inc to request information on the CTRL UL101.

## Reasons To Consider SoundCTRL

### Digital display of ultrasound data

Watch the waveform of the ultrasound produced by the component under test in real time. Compare the audible output of the UL101 through the headset to what you see on the PDA screen.

### Carry when necessary

The PDA is attached to the UL101 receiver with a sound cable. When using the UL101 for the detection of leaks or electrical arcing, it is not necessary to use the data recording equipment.

### A good training tool

Using SoundCTRL to monitor critical equipment helps the technician to quickly distinguish and diagnose the sounds produced by the component under test.

### Share information easily

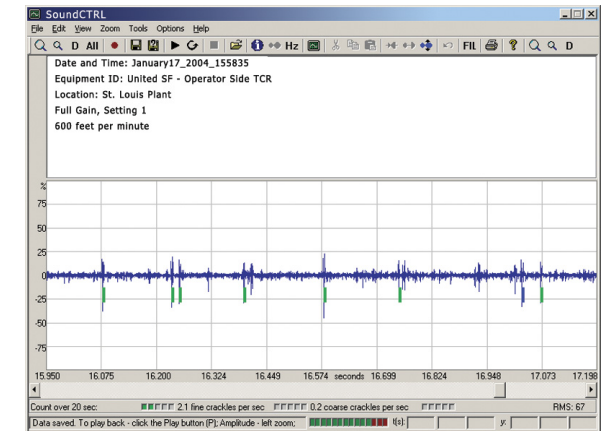
Once ultrasound data is recorded with the SoundCTRL, it can be uploaded to the desktop software and emailed to any other SoundCTRL user. Alternatively, your organization can share data and reports using InCTRL, the on-line data analysis system.

### Easy to use

Click record, identify the equipment ID, and begin testing. After 20 seconds, click stop. Return the PDA to its cradle that is attached to the desktop via USB or serial interface. The PDA and desktop will be automatically synchronized.

## Key Product Features

- Handheld system with desktop PC integration
- Ultrasound signal capture (20 seconds)
- Real-time waveform display
- Automatic date-time stamp
- Root Mean Square (RMS) amplitude calculation
- Coarse and fine crackle count calculation
- User-friendly menus and controls



SoundCTRL Desktop

## Which CTRL product package is right for you?

The UL101 is the required sensor for ultrasound testing using CTRL software.



**CTRL Systems, Inc.**  
1004 Littlestown Pike, Suite H  
Westminster MD, 21157  
USA  
www.ctrlsys.com

	UL101 Kit	SoundCTRL	InCTRL
Ultrasound Sensor	X		
Pressure & Vacuum Leaks	X		
Electrical Arcing & Discharge	X		
Condition Based Monitoring	X	X	X
Desktop Application		X	
Web-Based Application			X
Data Collection		X	
Data Analysis		X	X
Threshold & Health Assessment			X
Location/Equipment Setup			X
Reporting & Notification			X