ULTRASHOCK
Pressure, Humidity, Temperature & Tri-Axial Shock Recorder

FEATURES

- All inclusive design
- High speed download
- N.I.S.T. traceable
- Real-time operation
- Low cost
- Programmable start time
- Reusable
- Compact
- User-friendly
- Built-in accelerometers

APPLICATIONS
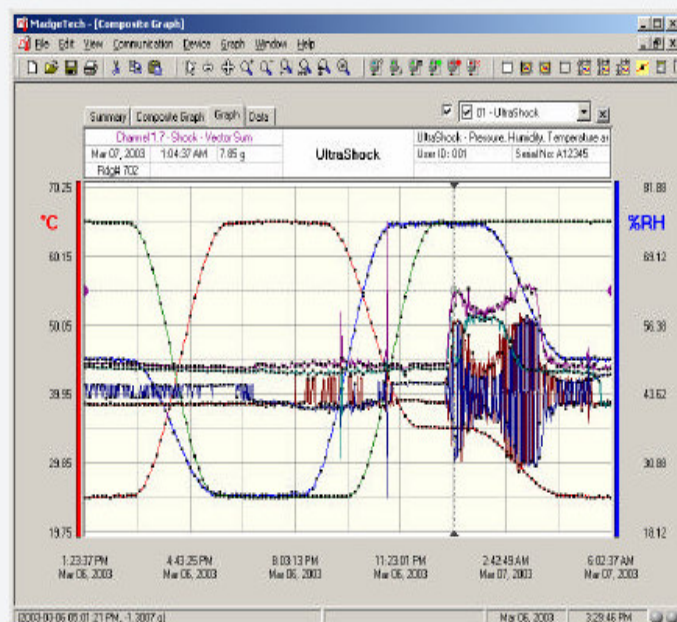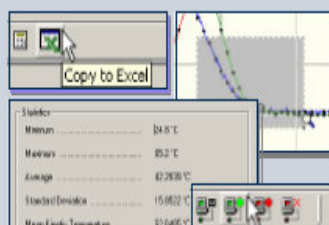
- Total environmental shipment monitoring
- Assembly line monitoring
- Brake testing
- Fragility testing
- Laboratory drop testing
- Aircraft turbulence measurement
- Machinery monitoring
- Railcar coupling impacts

The ULTRASHOCK is a battery powered, stand alone temperature, pressure, humidity and 3-axis shock recorder. The ULTRASHOCK measures and records temperature, pressure and humidity at the selected reading rates, while shock is recorded as the peak acceleration levels over the same interval. The ULTRASHOCK is specifically designed for documenting dynamic environments such as moving vehicles, trucks, containers, ships, etc. The device is also valuable in characterizing environments such as production and assembly lines of delicate electronics, IC fabrication, communications and computer components. This is an all-in-one compact, portable, easy to use device that will measure and record up to 23,831 measurements per channel. The storage medium is non-volatile solid state memory, providing maximum data security even if the battery becomes discharged. The device can be started and stopped directly from your computer and it's small size allows it to fit almost anywhere. The ULTRASHOCK makes data retrieval quick and easy. Simply plug it into an empty com port and our user-friendly software does the rest.

SOFTWARE

MadgeTech's Data Recorder Software is an easy to use Windows-based software package that allows the user to effortlessly collect, display and analyze data. A variety of powerful tools allow you to examine, export, and print professional looking data with just a click of the mouse.

ULTRASHOCK SPECIFICATIONS

Temperature Range:	-40 °C to +80 °C
Temperature Resolution:	0.1 °C
Calibrated Accuracy:	±0.5 °C (0 to +50°C)
Humidity Range:	0 to 100% RH
Humidity Resolution:	0.5% RH
Calibrated Accuracy:	±3%RH (±2% RH typical at 25 °C)
Pressure Range:	0 to 30 PSIA
Pressure Resolution:	0.002 PSIA
Calibrated Accuracy:	±1.0% FSR at 25 °C; ±0.2% typical
Acceleration Range:	±50 g
Acceleration Resolution:	0.1g (12 bit)
Calibrated Accuracy:	±0.5 g
Sampling Rate:	2 millisecond (> 500 Hz)
Memory:	23,831 readings per channel

Reading Interval:	1 reading every 2 seconds to 1 every 12 hours
Start Time:	Software programmable start time and date. Up to 24 hours in advance
Real Time Recording:	May be used with PC to monitor and record data in real time
Calibration:	Digital calibration through software
Calibration Date:	Automatically recorded within device
Power:	9V lithium or alkaline battery included
*User Replaceable Battery:	7 days typical
Data Format:	Date and time stamped °C, °F, °K, °R ; %RH, mg/ml water vapor concentration; PSIA, inHg, mmHg, bar, atm, Torr, Pa, kPa, MPa, altitude; g
Time Accuracy:	±1 minute/month (at 20 °C, RS232 port not in use)
Computer Interface:	PC serial or RS232C COM (Interface cable required); 28,800 baud
Software:	Windows 95/98/ME/NT/2000/XP based software
Operating Environment:	-20 °C to +70 °C, 0 to 90 %RH non-condensing
Dimensions:	1.0" x 3.5" x 4.4" (26mm x 89mm x 112mm)
Weight:	15 oz (435 g)

SOFTWARE FEATURES

Multiple Graphs:	Simultaneously analyze data from several units or deployments; easily switch to a single data series
Real-Time Recording:	Collect and display data in real-time while continuing to log
Graphical Cursor:	One click displays readings by time, value, parameter or sample number
Data Table:	Instantly access tabular view for detailed dates, times, values, and annotations
Scaling Options:	Autoscale function fits data to the screen, or allows user to manually enter their own values
Formatting Options:	Change colors, line styles, plotting options, show or hide channels in an instant

Statistics:	Calculate averages, min, max, standard deviation, and mean kinetic temperature with the touch of a button
Export Data:	Export data in a variety of common formats, or switch to Excel with a single click
Calibration:	Fully digital calibration function automatically stores parameters in device
Logger Configuration:	Easy set up and launch of data loggers with immediate or delayed start, preferred sample rate, and device ID
Communications:	Automatically sets up communications port, or lets user set configuration
Printing:	Automatically print graphical or tabular data

**As part of our commitment to continuous product improvement, MadgeTech reserves the right to change product specifications without notice.

ORDERING INFORMATION

Model	Description
ULTRASHOCK	Pressure, Humidity & Temperature Recorder
IFC101	Software, manual and 9-pin computer interface cable
N.I.S.T. Cert	N.I.S.T. Calibration Certificate

ASK ABOUT OUR OTHER DATA RECORDERS

Temperature	Voltage
Humidity	Current
Pressure	Submersible
pH	Intrinsically Safe
Level	RF Transmitters
Shock/Vibration	Multi-parameter
Pulse/Event	