

ULTRASHOCK

TEMPERATURE, HUMIDITY, PRESSURE & TRI-AXIAL SHOCK DATA LOGGER

Features

- Built-in accelerometers
- All inclusive design
- Compact
- Programmable start time
- High speed download
- Real-time operation
- Low cost
- Reusable
- User-friendly
- CE compliant

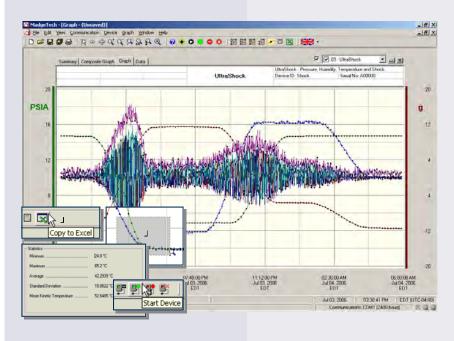
Applications

- Complete environmental shipment monitoring
- Shipping live cargo
- Aircraft turbulence measurement
- Endurance testing
- Assembly line monitoring
- Brake testing
- Laboratory drop testing
- 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 compact, portable, easy to use device will measure and record up to 174,762 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 its small size allows it to fit almost anywhere. The UltraShock makes data retrieval quick and easy. Simply plug it into an empty COM or USB port and our user-friendly software does the rest.



Data Recorder Software

displays temperature data in an easy to use graph.

The Windows®-based software package 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.

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UTLRASHOCK SPECIFICATIONS*

TEMPERATURE

Sensor: Semiconductor

Range: -20 to +60°C

Resolution: 0.1°C

Accuracy: ± 0.5 °C (0 to +50°C)

HUMIDITY

Sensor: Capacitive Polymer

Range: 0 to 95%RH

Resolution: 0.1%RH

Accuracy: ±3%RH (±2%RH typical at 25°C)

Specified Accuracy Range: +10 to +40°C; 10 to 80%RH

PRESSURE

Sensor: Semiconductor Strain Gage

Range: 0 to 30PSIA

Resolution: 0.002PSIA

Calibrated Accuracy: ±1.0%FSR at 25°C; ±0.2% typical

SHOCK

Accelerometer Type: MEMS Semiconductor

Acceleration Range (g): ±5 ±50 ±100 0.03 0.05 Acceleration Resolution (g): 0.01

Calibrated Accuracy (g): ± 0.2

Sampling Rate: 1.953 millisecond (512Hz)

Accelerometer Freq. 0Hz to approx. 400Hz Resp.:

±1.0

Reading Rate: 64Hz to 5 minutes for shock,

selectable in software. Temperature, pressure & humidity sampled approx. every 2 seconds at intervals shorter than 2 seconds. Otherwise, sampled

±2.0

±250

0.2

±4.0

at the reading rate.

Memory: 174,762 readings per channel; 1,572,858 total

readings

Start Modes: Software programmable immediate start or

delay start, up to 6 months in advance

Real Time Recording: May be used with PC to monitor and record

instantaneous measurements in real time

Password Protection: An optional password may be programmed into

the device to restrict access to configuration

options. Data may be read out with the

password.

Calibration: Digital calibration through software

Calibration Date: Automatically recorded within device

Battery Type: 9V lithium or alkaline battery included;

user replaceable

Battery Life: 7 days typical with lithium battery, 1 min.

reading rate @ 25°C

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 2 to 30°C)

Computer Interface: PC serial or USB (interface cable required);

115,200 baud

Software: Windows 95/98/ME/NT/2000/XP/Vista based

software

Operating Environment: -20 to +60°C, 0 to 95%RH non-condensing

Dimensions: 3.5" x 4.4" x 1.0" (89mm x 111mm x 26mm)

Weight: 12 oz (341 g) Enclosure: Anodized aluminum

Approvals: CE

BATTERY WARNING: DISCARD USED BATTERY PROMPTLY. KEEP OUT OF REACH OF CHILDREN. DO NOT DISPOSE OF IN FIRE, RECHARGE, PUT IN BACKWARDS, DISASSEMBLE, OR MIX WITH OTHER BATTERY TYPES. MAY EXPLODE, FLAME OR LEAK AND CAUSE PERSONAL INJURY.

SOFTWARE FEATURES

Multiple Graphs: Simultaneously analyze data from

several units or deployments; easily

switch to a single data series

Graphical Cursor: One click displays readings by time,

value, parameter or sample number 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 quickly

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: Automatically calculate and store calibration

parameters

Easy set up and launch of data loggers with Logger Configuration:

immediate or delayed start, preferred sample

rate, and device ID

Communications: Automatically sets up communications port, or

lets user select configuration

ORDERING INFORMATION

Data Table:

*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. SPECIFIC WARRANTY AND REMEDY LIMITATIONS APPLY.

<u>Model</u>	<u>Description</u>
ULTRASHOCK-5	Temperature, Humidity, Pressure and ±5g Tri-Axial Shock Recorder
ULTRASHOCK-50	Temperature, Humidity, Pressure and ±50g Tri-Axial Shock Recorder
ULTRASHOCK-100	Temperature, Humidity, Pressure and ±100g Tri-Axial Shock Recorder
ULTRASHOCK-250	Temperature, Humidity, Pressure and ±250g Tri-Axial Shock Recorder
IFC110	Software, manual and RS232 interface cable
IFC200	Software, manual and USB interface cable
NIST	N.I.S.T. Calibration Certificate
	Replacement battery for UltraShock
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ASK ABOUT OUR OTHER DATA RECORDERS

Temperature Pulse/Event/State Humidity Low Level Current Pressure Low Level Voltage **RF** Transmitters рΗ Level Intrinsically Safe Spectral Vibration Shock

LCD Display

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