# SHOCK101-EB

## TRI-AXIAL SHOCK DATA LOGGER WITH EXTENDED BATTERY LIFE

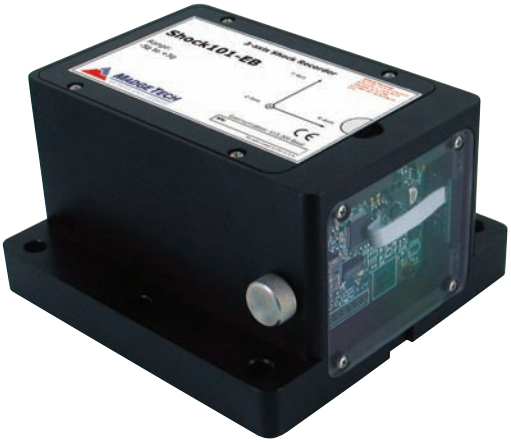
MADGETECH
WE BUILD DATA LOGGERS

**Features**

- High speed download (115,200 baud)
- Built-in accelerometers
- Real-time operation
- Low cost
- Programmable start time
- Reusable
- Compact
- User-friendly
- CE compliant

**Applications**

- Shipment monitoring
- Assembly line monitoring
- Brake testing
- Fragility testing
- Laboratory drop testing
- Aircraft turbulence measurement
- Machinery monitoring
- Railcar coupling impacts



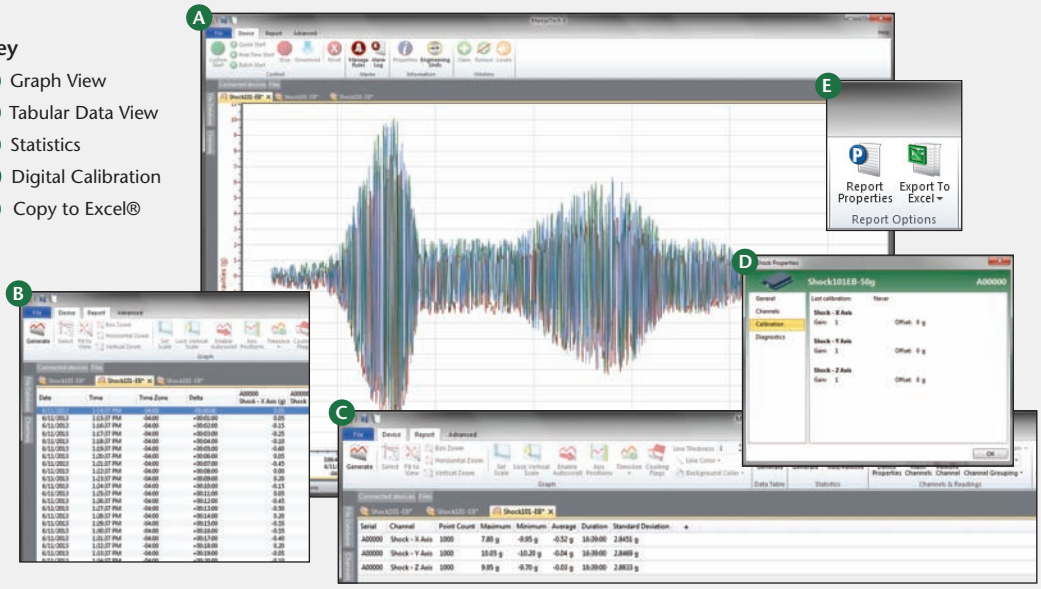
The Shock101-EB is a battery powered, stand alone 3-axis shock recorder which offers a battery life of up to 60 days typical. The unit measures and records shock as the peak acceleration levels over the user defined interval.

The Shock101-EB 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 equipment, 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 349,525 measurements per axis. The storage medium is non-volatile solid state memory, providing maximum data security even if the battery becomes discharged. The user can start and stop directly from the computer and it's small size allows it to fit almost anywhere. The Shock101-EB makes data retrieval quick and easy. Simply plug it into an empty USB port and our user-friendly software does the rest.

## MADGETECH DATA LOGGER SOFTWARE

**Key**

- A Graph View
- B Tabular Data View
- C Statistics
- D Digital Calibration
- E Copy to Excel®




**Software Features:**

- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Lethality equations (F0, PU)
- Mean Kinetic Temperature
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Data table view
- Automatic report generation
- Summary view
- Multilingual

# SHOCK101-EB SPECIFICATIONS*

| | | | | |
|---|---|---|---|---|
| **Channels:** | Shock (3 axes) | | | |
| **Acceleration Range (g):** | ±5 | ±50 | ±100 | ±250 |
| **Calibrated Accuracy (g):** | ±0.2 | ±1 | ±2 | ±4 |
| **Acceleration Resolution (g):** | 0.01 | 0.05 | 0.1 | 0.2 |
| **Absolute Max. Acceleration:** | 250g (all versions) | | | |
| **Sample Rate:** | 1.953ms/512Hz | | | |
| **Reading Interval:** | 64Hz to 5min | | | |
| **Memory:** | 349,525 readings per axis, 1,398,100 total readings | | | |
| **Start Modes:** | Software programmable immediate start or delay starts up to 180 days in advance | | | |
| **Status Indicators:** | Red: Blinks to indicate sleep mode<br>Red & Green: Blinks to indicate delay start<br>Green: Blinks to indicate taking sample (blinks at sample rate) | | | |
| **Password Protection:** | An optional password may be programmed into the device to restrict access to configuration options. Data may be downloaded without the password | | | |
| **Real Time Recording:** | Record instantaneous acceleration in real time (1 second or slower reading rate) | | | |

| | |
|---|---|
| **Calibration:** | Digital calibration through software |
| **Calibration Date:** | Automatically recorded within device |
| **Battery Type:** | 6 D-cell alkaline batteries included; **user replaceable** |
| **Battery Life:** | 60 days typical @25 °C, 1 minute reading rate |
| **Data Format:** | Date and time stamped gravities (g and mg) |
| **Time Accuracy:** | ±1 minute/month (at 20 °C, RS232 port not in use) |
| **Computer Interface:** | USB (interface cable required); 115,200 baud |
| **Software:** | XP SP3/Vista/Windows 7/Windows 8 |
| **Operating Environment:** | -20 °C to +54 °C, 0 to 95%RH non-condensing |
| **Dimensions:** | 5.5" x 5.4" x 3.2" (140 mm x 137 mm x 80 mm) |
| **Weight:** | 5 lbs (2.3 kg) |
| **Materials:** | 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.*

# ORDERING INFORMATION

| MODEL | DESCRIPTION |
|---|---|
| **SHOCK101-5-EB** | ±5g Tri-Axial Shock Recorder with extended battery |
| **SHOCK101-50-EB** | ±50g Tri-Axial Shock Recorder with extended battery |
| **SHOCK101-100-EB** | ±100g Tri-Axial Shock Recorder with extended battery |
| **SHOCK101-250-EB** | ±250g Tri-Axial Shock Recorder with extended battery |
| **IFC200** | Software, manual and USB interface cable |
| **Calibration Certificate** | Calibration Certificate available for data logger |
| **MN1300** | Replacement battery for Shock101-EB |

**ASK ABOUT OUR OTHER DATA LOGGERS**

Temperature
Humidity
Pressure
pH
Level
Shock
LCD Display
Pulse/Event/State
Current
Voltage
Wireless
Intrinsically Safe
Spectral Vibration
Motion