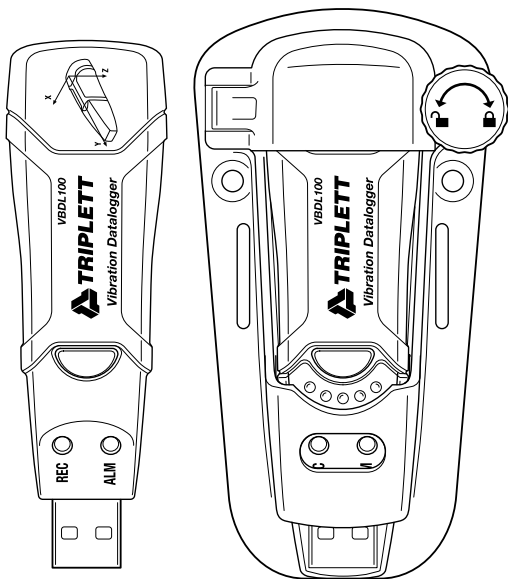


VBDL100

3-Axis Vibration Datalogger



INTRODUCTION

Thank you for choosing the Triplet VBDL100 3-Axis Vibration Datalogger. Designed for precision and reliability, the logger captures shock and vibration (acceleration) across a $\pm 18g$ range, recording detailed 3-axis g-force data and peak events to give you a complete picture of operating conditions.

The datalogger features a real-time clock for accurate time stamping, easy configuration of logging intervals and alarms, and simple USB connectivity for fast data download. Results can be quickly and efficiently analyzed using the included software. Its long-life 1000-hour battery and 4MB memory ensure extended operation, storing thousands of recordings for thorough monitoring. We appreciate your trust in Triplet and are confident the VBDL100 will deliver the performance you need.

Please read this manual carefully before operation to ensure safe use and optimal performance.

What's in the box: • VBDL100 • 3.6V Lithium Battery • Magnetic/screw mounting pedestal • User Manual	Stay updated: For the most recent version of this user manual, visit www.triplett.com and search for VBDL100. You can also find the latest specifications, FAQs, and product datasheets on our website.
---	--

SAFETY



Use the meter only as specified in this manual; otherwise, the protection provided by the meter and its warranty may be voided.

Operating Environmental Conditions

- Altitude up to 2000 meters
- Relative Humidity: $\leq 90\%RH$
- Operating Temperature: 0 to 104°F (0 to 40°C)

Maintenance and Cleaning

- Servicing not covered in this manual should be performed by qualified personnel.
- Periodically wipe the housing with a dry cloth. Do not use abrasives or solvents.

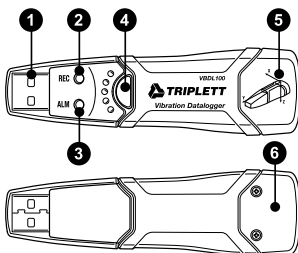
Recommendations

- Datalogger needs to be set up with the software before use. See software section.
- Do not store or operate the instrument at high temperature and high humidity environment.
- When not in use for a long time, uninstall the battery to avoid battery liquid leakage and cautery on the instrument. See battery section.
- If no battery installed for ~ 1 hour, stored data will be lost
- The logger will log peak value of vibration/shock during sampling interval
- Mount the logger securely onto the object in the desired orientation first, otherwise the 3-axis (X, Y, Z) will not be calibrated correctly. This will compensate for the effects of gravity.

METER DESCRIPTION

Front View

1. USB connector
2. RECORD (Green) LED
3. ALARM (Red) LED
4. Datalogger Start/Stop Button
5. Axis reference diagram

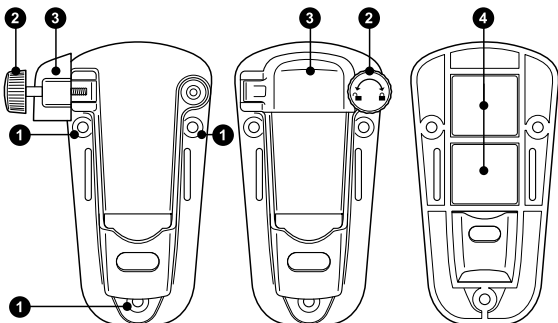


Back View

6. Battery compartment access screws (2) located on rear of the unit. Refer to the battery installation section for further details.

Pedestal Mount

1. Mounting screw holes
2. Swivel latch
3. Swivel latch lock
4. Mounting magnets

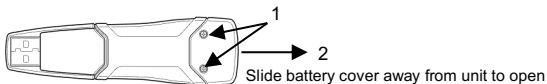


BATTERY INFORMATION

- Use only 3.6V lithium, ½ AA 1.0Ah, Saft LS-14250 or equivalent batteries
- The VBDL100 does not lose stored data when the battery expires or when it's being replaced. If no battery installed for approx. 1 hour, memory will be cleared.
- Logging will stop (cannot be restarted) until the battery is replaced, and the stored data transfer to the PC. Unplug VBDL100 from PC before replacing the battery.
- The battery life is approx. 1000 hours. If in doubt, replace the battery before logging critical data.
- When the VBDL100 is connected to the USB port, the battery depletes at a faster rate. Unplug when not in use.

Battery Installation

1. Remove the two Phillips screws
2. Slide the battery cover away from the unit
3. Place the included battery (or similar type of battery), in the battery compartment
4. Slide the battery cover back on and tighten the screws



CAUTION: Handle lithium batteries carefully and observe warnings on battery casing. Dispose batteries in accordance with local regulations.

LED STATUS INDICATIONS

LED		DESCRIPTION	ACTION
RECORD	ALARM		
		LEDs Off (not flashing) • No datalogging in process • No battery found • Battery completely discharged	• Install battery • Replace the battery and download the data
		Single GREEN LED flashes every 10 sec.* • Datalogging • No alarm**	Press and hold the Start/Stop button until the RED LED flashes four (4) times to stop datalogging.
		Single RED LED flashes every 30 sec.* • Low battery	If meter is datalogging, it will automatically stop. The recorded data will not be lost. Replace the battery.
		Alternating RED and GREEN LEDs flashing every 60 sec. • Memory is full	Download data.

*To save power, the VBDL100's LED flashing cycle can be changed via the supplied software.

**To save power, alarm LEDs for temperature can be disabled via the supplied software. NOTE: When the battery is low, all operations will be disabled automatically.

NOTE: Logging automatically stops when the battery weakens (logged data will be retained).

MOUNTING INSTRUCTIONS

The VBDL100 fits securely in the supplied mounting pedestal. Unscrew the pedestal latch and snap the meter into the pedestal. Secure the latch and follow one of the three mounting methods below.

- **Magnetically:** Built-in magnets at rear of pedestal
- **Adhesive:** Use glue (not supplied) to affix the pedestal to the area under test
- **Screw Mount:** Use mounting holes on the pedestal for screw mounting (screws not supplied)

SOFTWARE

Triplet's Vibration Datalogger Software is a program for downloading stored data from the datalogger to your PC/laptop/notebook when it is connected to the USB port.

The software allows you to configure the Datalogger's sample rate, motion detection threshold, record mode, LED flash cycle, and more. Refer to the instructions included in the software program's HELP utility to configure the datalogger and to otherwise use the software.

System Requirements

- Operating System: Windows® XP, 7, VISTA or above
- Minimum Hardware requirements:
 - PC or laptop computer with microprocessor $\geq 90\text{MHz}$
 - 8MB RAM

- 2MB hard disk free space for the software
- Resolution $\geq 800 \times 600$ and 16-bit color display

Software Installation

Go to www.triplett.com/software/ and locate VBDL100.

Download the software file. Click the downloaded zip file to access the VBDL100 Setup.exe file. Follow the on-screen prompts and the instructions below.

PC to Meter Communication

1. Connect the meter to the PC's USB port
2. Double-click the program icon (located on the desktop) to launch the program. The main software screen will appear.
3. Instructions for using the Datalogger Software are contained in the HELP Utility available from the HELP menu in the software program.
4. Read the HELP Utility thoroughly to fully understand the software and the related functionality of the VBDL100.

OPERATIONS

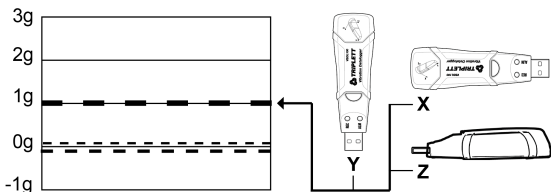
Basic Operation

This section covers only the starting and stopping of the Datalogger's recording functions. All other information is provided in the HELP utility within the software program.

1. Configure the Datalogger first by referring to the instructions in the software program's HELP utility.
2. If AUTO is selected in the software, the VBDL100 will begin datalogging once the software window is closed.
3. If MANUAL is selected, press and hold the VBDL100 **Start/Stop** button until the Green LED flashes; the LED will flash periodically (flash interval time is selectable in the software) indicating that the datalogger is recording.
4. To stop datalogging, press and hold the **Start/Stop** button while the unit is datalogging. The Red LED will quickly flash indicating that datalogging has stopped.
5. Refer to the LED status table earlier in this manual for interpreting the LED flash information.
6. Refer to the software HELP utility for transferring the data from the meter to the PC.

1g OFFSET

The axis (or combination of axis) parallel to the earth surface indicates 1g force related to gravitational force.



SPECIFICATIONS

FEATURES	
Acceleration	Range: 18g, Resolution: 0.00625g
Accuracy	$\pm 0.5g$
Frequency Range	0 to 60Hz
Memory Storage	4MB Flash: Stores 168042 records Motion Detection: 112028 records per axis.
Datalogging Rate	Selectable sampling interval: 50ms to 24hrs
Data Format	Time stamped peak acceleration and freefall; Average and Peak Vector sums
Hardware Requirements	8MB RAM; 2MB Hard Drive space for software program; USB jack
System Requirements	Windows® XP, 7, VISTA or above
Operating Temperature	32 to 104°F (0 to 40°C)
Storage Temperature	0 to 140°F (-10 to 60°C)
Battery Type	3.6V Lithium, 1.0Ah
Power consumption	1mA (typical, while recording); < 15µA while idling
Battery life	1000 hours approx.
Dimensions/Weight	3.7 x 1.1 x 0.8" (95 x 28 x 21mm) / 6oz (172g)

CERTIFICATIONS



This product complies with applicable CE requirements, is RoHS compliant, and has been tested to applicable IEC standards.

WARRANTY

Triplett offers warranty to the original purchaser of its products. We guarantee that our products will be free from defects in workmanship and materials for two (2) years from the purchase date.

This warranty does not cover:

- Products purchased from unauthorized distributors.
- Items that have been repaired or altered by unauthorized individuals.
- Damage from misuse, abuse, misapplication, negligence, or accidents.
- Products with altered, defaced, or removed serial numbers.
- Accessories, including batteries.

For product support, registration, FAQs, or to request calibration or repair services, visit www.triplett.com/support.

Imagery is for reference and may be enhanced for clarity. Actual product appearance and screen content may vary slightly. Specifications are subject to change without notice.

For the latest information, visit www.triplett.com.

Copyright © 2026 Triplett. All rights reserved.