ShotTrack ViB User Guide



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ShotTrack ViB HG

Set-Up unit

Switch the ShotTrack ViB Unit on that you want to setup

Do	uble click on the ShotTrack ViB Mon	itor	· ic	on
De las beies beies	76.807 9		* ×	((_))
Pressore Processor Proceso		 Aller and a second secon	10 10 10 10 10 10 10 10 10 10	The main window opens with no data displayed.



БНПТ ViB 1 P A

Device

From the main task bar click on Device

Click on the down arrow next to the Select device box

Choose the required unit

24

The current unit settings are displayed if connection is successful

There is a Battery current display that shows the battery discharge or charge status. If using an external power supply for example solar panels the rate of charge will be the amount of current available after suppling the working power for the unit for battery charging up to the maximum 1.2 Amp charge rate.

The static accelerometer and magnetometer (if fitted) will show orientation and heading information.

Get further information

Further information is displayed when the down arrow next to device properties selected.

- Serial number •
- GPS Data if available •
- Firmware version
- Hardware version •
- Current temperature .
- Disk usage (erase all files in the data window if needed) •
- Battery capacity (charge if needed) •
- Current Date and Time in units RTC (in selected format) •





Device settings

There are 5 control buttons that have the following use:

- Start: Initiates a software tigger (starts a sample). The sample starts one minute after command.
- Stop: Stops the unit from waiting for a trigger, unit will resume waiting for a trigger after a minute.
- Sleep: A reduced power mode that waits for communications before continuing.
- Device properties: This disconnects the bluetooth link and reconects it to get the device properties again.
- Device setting: Reloads all the device settings.

Thresholds

- There are 2 different trigger options either level threshold trigger or wire-break.
- The three-different axis have individual trigger level settings from 1% of full scale to 80%.
- Wire-break sets the unit to trigger on the external wire-break connection.
- Master trigger is not implemented in the current version of the Vibration monitor
- Once the levels have been set the **Set threshold** button updates the unit.

Parameters

- Sample rate can be set for 1,000 32,000 s/s
- Record time can be set up to the maximum times allowed by the various sample rates.
 - Note a minimum of 8,000 samples should be selected with a combination of Record time and Sample rate
- G Range is read only and shows the current units range.
- Pre-trigger is a percentage from 5% To 80% of the record time set. Changing either this or the Record time alters the actual trigger time.
- Once the values are selected the **Set parameters** button updates the unit.

Real Time Clock

- The Real Time Clock (RTC) should be set to the system time periodically to increase the accuracy.
- The RTC is used when there is no valid GPS connection for data timing and for the File Date/Time stamping

me and Date			
(Set RTC		
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These settings are retained by the unit when switched off and to deploy the units with these pre-set settings is simply a matter of switching the unit on.



setungs			
	10 * 1	~	
Threshold X	10 🗸	%	5.0 g
Threshold Y	10 🗘 '	%	5.0 💭 g
Threshold Z	10 🗘 🤅	%	5.0 🌻 g
	Set thresholds		Use wirebreak
Sample rate	16000 -	/s	Master trigger
Sample rate	16000	▼ /s	Master tr
		.	
Record time	4	▼ S	
G range	50	⊤ g	
Pre-trigger	25	\$ %	1.00 🗍 s

Set parameters

Catting

On the bench

Secure the unit to the surface using the dyno bolt connection



Turn the unit ON

- If wire-break triggering has been selected, then the unit will not arm itself until the wire-break cable is connected in a shorted condition. It will flash rapidly RED until a shorted cable is connected
- Walk away
- Unit will set itself after 2 minutes
- An alternate Blue and RED flash will indicate it is waiting for a level trigger.
- A Blue only flash will indicate it is waiting for a wire-break trigger.

After the shot

- The unit will reset itself after recording the data. If the trigger was a wire-break then the unit resets to Threshold triggering.
- If at any period a Bluetooth connection is made the unit will connect to the application.
- The data just recorded can be downloaded if required.
- The unit can have its operating parameters changed at any point using the Bluetooth connection

Switch off the unit

Press on/off button until it is illuminated with a solid Blue colour.



ViB







Firmware Update for ViB HG

To update the firmware on a ViB HG unit using Bluetooth you must follow these 4 steps.

- The unit must be paired to the computer you are using.
- The unit must be registered to the PC software
- The unit must be set to upload mode.
- Using the Microchip PIC32 Bootloader Application (supplied) the new firmware has to be uploaded to the unit.

Warning: Download any files on the unit as these will be deleted during the update operation

• Switch on the ShotTrack ViB unit you wish to update

Open Program

- Double click on the ShotTrack ViB Monitor icon
- The main window opens with no data displayed.

ShotTrack Vibration Monitor	Ω (baild 2)		– ø ×
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Go to help menu		
Click on Set Upload	Track Vibration Monito	r v1.0 (build 2)
Mode	Edit Device Data	Help
		Contents F1
Zones	д	😭 About
		Log file 🕨 🖌 🗹 Vertical
		Set Upload Mode
		0 01
		0.9
		0.6
You will be prompted to accept	elete zone	
• Too will be prolipted to decept		Confirmation
		Are you sure unit will restart in uploade mode?
		<u>r</u> es <u>N</u> o
		l]
• A dialog box opens to with all	Select device	×
registered units	Select device	· ·
	Plustaath serial	ViB2000-001 (COM13)
	biuetootri seriai	ViB6000-001 (COM16)
		ViB200-002 (COM12) viB500-003 (COM7) ancel
		ViB25-001 (COM20)
 Choose unit to be updated 	Select device	x
	Select device	ViB50-002 (COM10)
	Bluetooth serial	Connected
		OK Cancel
	1	
		x
 Unit has been reset it will automa 	tically switch off o	it this point
	incarry switch off o	Unit has been reset

Start unit in bootload mode Press and hold ON/OFF button

×

Erase

Run Application

Connect

Load Hex File

Ver

During the upload stage the ON/OFF button must be pressed the whole time.

Button will flash **RED** rapidly



PIC32 Bootloader Application V1.2

 \sim

Baud Rate

115200

PID

0x03C

11

✓ Enable

Enable

Enable

Communication Settings Serial Port

Com Port

0x4D8

192 168

UDP Port

6234

2 C Ethernet IP Address

COM1

USB VID

Uploading new Firmware

- Open the Microchip PC Bootloader • Application.
- Press and hold ON/OFF button on unit.
- The button light will flash RED every half • second.
- Do not release until whole operation is completed



Select Com Port

- Click on Com Port down arrow •
- Choose the correct Com port •
- Click on connect •

If connection can be made the status box shows Device connected and the Bootloader Firmware

Version number

Keep button pressed



Button will change from **RED** flashing to **BLUE** flashing

PIC32 Bootloade	er Application V1.2				×
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Com Port	Baud Rate	I Enable	Program	Verify	Run Application
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PIC32 Bootloader Application V1.2				
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Ethernet				
IP Address				
192 . 168 . 1 . 11				
UDP Port				
6234	Enable			





ShotTrack Pty Ltd Innovation Hub Coffs Harbour NSW 2450 Australia

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Get new firmware file Keep button pressed

- Click on Load Hex File.
- Navigate to where the new firmware is located.

🚳 Open

→ ↑ - Norphox > ShotTrack Distribution > ViB_HG > Firmware > Upgrade

- Select file
- Click OK
- Status box will indicate Hex file loaded successfully.

Keep button pressed

Program unit

- Click on Erase-Program-Verify
- The green bar will show progress.
- When finished the status box will show

• Verification successful on bottom line. Keep button pressed

- Click on Run Application.
- Status box will show
 Command issued to run application.
- Button will stop flashing and illuminate Blue.

Release button now

The button will flash RED quickly as any files on the unit are deleted 16 flashes per file.

When finished the button will turn **BLUE**

• Exit PIC32 Bootloader Application

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Downloads					
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Pictures					
Videos					
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Data Drive (E)					
Drop Box Local (
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VID	PID				
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