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Installing the ShockLog Software

Insert the USB drive into the USB port on your PC. The setup process should run automatically. If for any reason the setup program does not automatically run, go to the Start menu and in Run, enter: **V:\shocklogsetup.exe** (where V:\ is the USB drive on the PC) and open the program from there.

Enter your name, company name and the unique serial code supplied with the ShockLog[®] USB. The code can be found inside the ShockLog accessory case. The code will begin with "**SW**." Once the appropriate information and a valid code have been entered, click "**OK**." Once the appropriate components have been downloaded, the ShockLog Setup Wizard will begin. Advance through the screens until a "**Completed the ShockLog Setup Wizard**" window appears. Click "**Finish**" to complete the installation.

Installing the Batteries

- The battery compartment is located on the underside of the ShockLog unit.
- Remove the 4 securing screws and lift the battery cover.
- Ensure the orientation of the batteries is correct and insert batteries into the ShockLog unit.
- Ensure the rubber seal is correctly positioned, replace the battery cover and insert the 4 screws. Tighten the screws evenly in a diagonal rotation.

Opening the Software & Initial Layout Setup

Licence Key

The ShockLog user interface has a variety of "dockable" windows that allow the user to view information of interest. Refer to the ShockLog Manual for detailed information regarding the positioning of the dockable windows.

For demonstration purposes, a number of files are included in the database installed with the ShockLog software. These files are shown in the Explorer and Record Table windows. Click on one of the available files and the Summary Report will be displayed in the File Viewer.

Notice the six tabs along the top of the File Viewer (Report, Settings, Slots, Slot Alarms, Summaries, and Events). These tabs link to more detailed information relating to the open file record. More information regarding these tabs can be found in the ShockLog Manual.



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Connecting the ShockLog to your PC

The USB communication port is located on the right side of the ShockLog. It is secured behind a threaded, protective cap that serves as the IP67 seal for the USB port. To access the USB port, carefully unscrew the protective cap and expose the USB connector. Connect the USB cable to the ShockLog and then connect the other end to the PC USB port.

Communications Window

In order to communicate with the ShockLog unit and to monitor the current status, open an additional dockable window called "**Communications**". From the "**View**" menu at the top of the screen, select "**Communications**". The information displayed from an attached ShockLog will be: model of ShockLog connected, serial number, events (number of recorded alarms and warnings), date / time (per the unit's clock), range (G range set in the unit), version (firmware), state (running or stopped), slot alarms (number of alarms the unit has experienced during the period), memory status indicators (inform you when memory is nearly full or full), connection (USB or serial), and protocol (communications protocol being used by the attached unit).

Communications		A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	×
Download Start Send Setup Setup Passwords	Model: 298 Serial Number: 23525	Version: 21 Events: Alams: 0 Warns: 0 Slot Mem Connection: USB	
Set Clock Stop Read Setup Security Log Dat	te / Time: 12/16/2011 9:00:55 AM Range: 10		

Buttons are available to perform the following tasks:

- **Download** enables you to download a file from the ShockLog
- Start when a ShockLog is in a stopped state, this button will start the unit
- Send Setup allows the user to send a new setup to the unit
- Set Clock allows the user to reset the unit's clock to match the PC's clock
- Stop when a ShockLog is in a running state, this button will stop the unit
- Read Setup provides the user with the ability to read the unit's current setup information
- Setup Passwords and Security Log are specialty functions see the manual for details

Creating or Modifying a Setup File

Select Model or File

To create, view, or modify a setup file go to the "**View**" menu at the top of the screenand select "**Setup**." A new window will appear listing the available ShockLog models. After selecting a ShockLog model, to open an existing file, select the ShockLog model of interest and click the "**Load File**" button. A list of available setup files related to the selected model will be shown. Highlight the desired file and click on "**Open**." Similarly, to create a new setup file, click on "**New Set-up**" after selecting a model. The "**Current File**" button allows you to interrogate a connected ShockLog to determinewhat setup has been loaded into the unit.

Select Model	
298	
278	
248	
208 RD298	
RD398	
RD317	
Load file	Current File
New Set-up	Cancel

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Setup

When the appropriate ShockLog model has been selected or the desired setup file has been opened, a new window will appear. The Setup window has a series of tabs that guide the user through the available options for the selected ShockLog model.

Firmware Options

The first tab in the Setup screen is "**Firmware Options**." This section defines what factory or peripheral accessories are being used with the selected ShockLog. If the options are grayed out and selected, they are default options and cannot be changed. If they are grayed out without being selected, the options are not available for the selected ShockLog.

Firmware Options	Settings	Slots	Events	Slot Alarms	T&R Ak	arms Finish	
Standard Option	ation)		Internal T	RH/T RH (RD317) ìi t Roll	only)	Peripherals RD299 HPT RD400 Remote Accel. RD401 Remote Indicator RD401 Tit and Roll	RD401 On Wams On Alams Battery Power Reset via External
Accel Slot Alarms		GPS Module				Satellite / Cellular	iButton Password Password: Confirm: Continue >>

Standard Options

gRMS (Vibration) – Users have the option to record the gRMS values within the time slot graphs, allowing users to see the vibration levels throughout a given time slot period.

Standard Options

- External RH/T Relates to the ShockLog 298 and 248 with the factory optional Temperature and Humidity sensor added
- External RH (RD317 only) Relates to the Legacy RD317 Micro ShockLog with the factory optional Temperature and Humidity sensor added
- Internal Tilt/Roll Relates to the ShockLog 298 with the factory optional sensor added to detect tilt & roll
- **GPS Module** Refers to ShockLog 298 with optional GPS module to record GPS coordinates of an impact and coordinates when a time slot summary is made

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Peripherals

When the appropriate ShockLog model has been selected or the desired setup file has been opened, a new window will appear. The Setup window has a series of tabs that guide the user through the available options for the selected ShockLog model.

Optional accessories may be added to the ShockLog setup. Click the box for any options that will be utilized with the ShockLog, then click "**Continue**."

- **RD299 HPT** External temperature, humidity and pressure sensor; attaches via the Hirschman connector on the ShockLog 298.
- RD400 Remote Accel Remote, single axis accelerometer; legacy tool
- RD401 Remote Indicator Indicator box that duplicates ShockLog alarm LEDs; legacy tool
- RD404 Tilt & Roll External tilt and roll sensor; legacy tool
- Satellite / Cellular Enables ShockLog Cellular (ShockTrak) or ShockLog Cellular communication modules. These modules provide real-time notification of out of tolerance conditions as well as shipment location information. See page 9 for additional information.
- External reserved for custom development

RD401

Users are able to create password protection in the iButton system. See the Manual for more details. These settings are available for a customized legacy solution from ShockWatch. They are not supported by the ShockLog 298 or 248.

iButton Password

Users are able to create password protection in the iButton system. See the Manual for more details.

Settings

Set Up Name

For a new setup the word "default" will be in this field. Change this name before proceeding.

🇞 Setup - 298	-		_	_			_			
Firmware Options	Settings	Slots	Events	Slot Alarms	T&R Alarms	Finish				
Setup Name								Start Date		
default								09:23:21 - 16 Apr 2013		
Mission Commer	nt									
Protocol400_1	/er2 ▼		Protocol	400					(Continue >>

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Start Date

If desired, the ShockLog unit can be set to begin monitoring at a future date/time, click on the right hand arrow to bring up a calendar selector and select the desired date and set the start time as required.

Mission Comment

Add notes to the setup file. These comments will be displayed in the Settings tab of the File Viewer when a file is downloaded and viewed.

Protocol

Protocol 400 is the only available setting at this time.

Slots

Slot Contents

Parameters in the Slot Contents screen define the parameters to be recorded in the Slots Graphs. Select the parameters of interest by clicking the appropriate boxes.

🎨 Setup - 298						
Firmware Options Setting	gs Slots	Events	Slot Alarms	T&R Alarms	Finish	
Slot Contents Max Peak X Max Peak Y Max Peak Z Min. Peak X Min. Peak Y Min. Peak Z	 Internal Externa Externa Externa HPT Te HPT Hu 	Temperat I Temperat I Humidity I Dew Poir I Dew Poirt I Dew Point	ure Inte ture Inte nt	emal Tilt emal Roll	Journey Duration Slot Interval 10 Sec Max. No. / Run time 93491. 10Days Summary Interval 10 Min Run time 7Days, 2Hours.	
						Continue >>

Journey Duration

Select the expected journey length, and the ShockLog will automatically optimize the slot and summary intervals settings.

Slot Interval

Defines how often a time slot will be recorded. The window below the Slot Interval setting will show how long the time slot graph will run based on the setting.

Summary Interval

Allows the user to set the time between each summary period. Summaries provide an overview of what was recorded by the ShockLog in a given period of time known as the summary interval.

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Events

The Record section allows users to specify the resolution / memory to be allocated to each event.

🗞 Setup - 298			-							X
Firmware Options	Settings	Slots	Events	Slot Alarms	T&R Alarms	Finish				
Record Length:	32 Kbyte	s 🔻	Number Ev	rents: 108			sholds nge 'g' or 'Velo	city'	- Hardware Filter	
Max. Time:	1 Sec	•	Sample Ra	te: 4096Hz	!	10	g	•	90	✓ Hz
Always Max Ordered Dat Event C		1		hresholds able I: Never	Ŧ		Options	Wam (? Alarm (?		Ŧ
										Continue >>

Length

The more bytes allocated to an event, the more points the event graph will display. The peak of an event will not be lost when data is compressed as the ShockLog always keeps the max & min samples of each compressed data section.

Max Time

The maximum length of any recorded event. In general, this setting is only used in a test environment, as most impact events are less than 1 second in duration. See the Manual for additional details.

Ordered Data

Record events in an uncompressed format and display the full 4096 samples per second.

Thresholds

Determines when the ShockLog wakes up, the levels at which a warning or alarm is created, and the dropout level of the event.

Range

As a rule of thumb, the larger and heavier the object, the fewer g's are needed to damage the object. Therefore, the 1g, 3g, and 10g ranges are generally used for large objects (e.g. something weighing tons). The 30g, 100g and 200g ranges are used for lighter shipments. The ShockLog 298 has the additional ability to record in velocity; this will automatically occur if a range in cm/s is selected.

Hardware Filters

Used to reduce the number of unwanted higher frequency events where it is known that this type of event will not cause damage to the object being monitored. Please contact ShockWatch or your local distributor to assist with selecting the correct filter.

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Filter Selection Guidelines (Not absolutes):

- **250 Hz** Optimized for equipment weighing up to 10,000 lbs
- 120 Hz Optimized for equipment weighting 10,000 to 25,000 lbs
- 90 Hz Optimized for equipment weighing 25,000 to 50,000 lbs
- 40 Hz Optimized for equipment weighing 50,000 to 100,000 lbs

Options

Basic - default setting. Warning and alarm levels can be adjusted by the user. Wake and dropout levels are set automatically based on the warning level

Link XYZ - all of the axes operate off of the same thresholds

Multiple - different thresholds for each axis

Timed Events - records a detailed event at the end of every summary period; independent of thresholds being breached

Wake - the level at which the ShockLog will wake up and begin recording

Warn and Alarm - warning and alarm event levels

Dropout - level at which the ShockLog will stop recording

Slot Alarms

gRMS (Vibration)

gRMS alarms allow ShockLog 298 users to set slot alarms for gRMS data. In the setup window, users must select the gRMS option (Firmware Options) for this measurement to be available.

🇞 Setup - 298		-		-	-	-	-		-	mides	
Firmware Options Se	ettings S	Slots I	Events Slo	t Alarms	T&R Ala	ms Finish					
gRMS (Vibration) gRMS X (%): 75 gRMS Y (%): 75		able									
gRMS Z (%): 75	En En	able]								
	_		External	RD299	НРТ	High Limit	External	RD299 H	PT		
Temperature	e (°C) 0	×	Enable	Enable		0	Enable	Enable [
Humidit	ty (%): 🛛	* *	Enable	Enable		0	Enable	Enable [
Dew Poin	nt (°C) 🛛	*	Enable	Enable							
Pressure (millib	oar) 0	×	Enable	Enable		×	Enable	Enable [Continue >>

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Environment

Allows users to set various low and high thresholds for temperature, humidity, dew point and pressure depending on the sensors being used with the ShockLog.

T&R Alarms

Used when a Tilt & Roll accelerometer is attached to the 298 ShockLog.



Finish

Provides a summary of the settings and provides an opportunity to save the setup file and send it to the ShockLog.

Saving a Setup File

After a setup has been defined, it must be saved before it can be sent to a ShockLog. Click the disk save icon to save the file.

👌 Setup - 298											
Firmware Options Settings Slots	Events Slot Alarms T&R Alarms	; Finish									
i 😂 🖬 🕨 🗙											
Setup Name:	USA Trip										
Start Date:	4/16/2013 9:23:21 AM										
Accelerometers:	Events:	Slots:	Summaries:								
Range 10 g Wake (%) Acc.: 30 Wam (%) X:40 Y:40 Z:40 Alam (%) X:60 Y:60 Z:60 Dropout (%) X:40 Y:40 Z:40 Hardware filter: 90 Hz	Record Length 32K Max. Record Time 1 Seconds Max. No. Events 108 Filter Frequency 90Hz Always Max.	Interval 10 Sec Total run time 10Days 19Hours Max. No. Slots 93491 No. Contents set: 4 No. Alarms set: None Selected	Interval 10 Min Total run time 7Days 2Hours								
Standard Options	Factory Options	Peripherals	RD401								

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Sending a Setup to the ShockLog

Once the setup has been created and saved, it can be sent to the ShockLog. Connect the ShockLog via the USB cable to the PC and click the play icon.

Monitoring & Downloading a ShockLog

With the Communications Window open and a ShockLog attached to the PC, the information boxes will automatically update with information live from the ShockLog. Download the ShockLog from the Communications Window with the "**Download**" button. Recorded data can be reviewed following the downloading process by selecting the file from the Explorer Table.

SpotSee Cloud

SpotSee Cloud allows you to access information about your shipment anytime, anywhere. Simply login at cloud.spotsee.io to review your journey information, view alarm conditions, summary (maximum values for user defined period) and asset location.

Communication Module Activation & SpotSee Cloud

New User Set Up

New users will be prompted to set up a user name and password as well as to define some basic preferences.



Returning User Sign On

After a username and password have been established, users can sign in by navigating to track.spotsee.io and signing in.



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Dashboard

Upon signing in, users will access their Dashboard which provides an overview of the Locations, Assets, and Consignments (or Trips) belonging to that user. These items can be filtered by Asset Type and Status. It also enables search for a specific Asset.



ShockLog Cellular Module Battery Installation

Unscrew the Battery Panel (see image to the right). Requires a Phillips screwdriver to complete this step. Install the six (6) AA batteries provided in the direction noted in each battery slot, verify that the gasket is in place and replace the battery panel making sure that the certification label is visible. Tighten the screws on the battery panel to preserve IP 67 rating.



For Questions or Trouble Shooting, Please Contact Technical Support

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