





# ShockLog Cellular GL

# **User Manual**



The ShockLog<sup>®</sup> Cellular GL Impact Recording and Tracking System combines advanced tri-axial piezoelectric accelerometer technology with global connectivity and real-time tracking.

When a programmed impact threshold is exceeded, a detailed event curve is recorded, and the ShockLog Cellular GL module will send a real-time alert to inform stakeholders that a potentially damaging impact has occurred. Access to this information while an asset is en route can enable decisions that will reduce costs and improve efficiencies.

#### **ShockLog Cellular GL Features & Benefits**

- Custom, timely alerts when impact, tilt, temperature, or humidity thresholds are breached
- 4G LTE / 3G / 2G / Wi-Fi Connectivity
- Access to information through a secure, dedicated web portal
- Cellular and Wi-Fi Positioning

#### Configure the ShockLog Cellular GL

The ShockLog Cellular GL module is configured over the air by accessing the SpotSee Cloud. To update ShockLog 298 parameters (including alarm levels), users must connect directly to the ShockLog 298 or use an iButton to update the preferences in the unit software.

#### **Battery Replacement**

The ShockLog Cellular GL utilizes (5) 1.5V AA batteries and can accept either alkaline or lithium options. Expected battery life for the module ranges from 4 months (sending one message an hour) to 45 months (sending 1 message a day) when using Saft lithium batteries. When necessary, users may easily replace the ShockLog Cellular GL batteries using a Phillips head screw driver to remove the top of the compartment, exchanging the batteries, and re-attaching the lid.

#### **Firmware Updates**

The ShockLog Cellular GL firmware is automatically upgraded over the air. There is no need to connect the unit to an external computer. When the device connects to a cellular network, any available firmware upgrades will automatically download.



# ShockLog Set Up

To enable usage of ShockLog Cellular GL accessory, it must be activated in the ShockLog 298 software. It is also within the ShockLog 298 software where the user will specify the alarm levels that will trigger alerts from the ShockLog Cellular GL device.

When initiating the Setup of the ShockLog 298 software, the user will begin on the "Firmware Options" tab and click the check box next to the Satellite / Cellular / Display Peripheral.

👩 Setup - 298	and the second second		— – _ X
Firmware Options Settings	Slots Events Slot Alarms T&R A	lams Finish	
Standard Options	Factory Options  External RH/T  External RH (RD317 only)  Internal Tilt Roll  GRS Module	Peripherals  RD299 HPT  RD400 Remote Accel.  RD401 Remote Indicator  RD401 Tit and Roll	RD481 On Warns On Alarms Battery Power Reset via External
	RF Communications	Satellite / Cellular / Display  External	iButton Password Password: Confirm:
			Continue >>

Once the Cellular Peripheral is enabled, the following warning will appear. The user must click "OK" to move forward with the programming process.

聾 Satellite / Cellular / Display		×
This selection will make a cellular data transmissio The Summary interval will now be limited to a minir	n on every summary inter num of one hour.	rval.
Do not show this message again.	ОК	Cancel



Within the "Settings" tab the user may choose a name for the set up and select the start date for the unit. Once these updates are complete, the user will click the "Continue" button at the bottom of the screen to proceed with the process.

	^
Start Date	
09:06:12 - 19 Nov 2024 🛛 🗐 💌	
	Continue >>

The user will be taken to the "Slots" tab, where the Slot Interval and the Summary Interval may be adjusted based on the model of ShockLog and the connected Accessories.

🗞 Setup - 298			-	= ×
Setup - 298 Firmware Options Set Slot Contents Max Peak X Max Peak Y Max Peak Z Min. Peak X Min. Peak Y Min. Peak Z	ttings Slots Events Slot Alams  Internal Temperature External Temperature External Humidity External Dew Point HPT Temperature HPT Humidity HPT Dew Point URT Persone	T&R Alarms Finish mal Tilt Journey Duratio mal Roll Slot Interval 10 Sec Max. No. / Run time 93491 10Days Summary Interval 1 Hour 10 Min	-	- ×
	HPT Pressure	20 Min 30 Min 1 Hour 2 Hour 4 Hour	C	ontinue >>





It is important to note that the user selections on the "Firmware Options" tab at the beginning of the process will determine the available Slots/Alarms. For example, by selecting the items highlighted emphasized below:

Firmware Options Settings	Slots Events Slot Alarms T&R A	Jams Finish	
Standard Options	Factory Options External RH/T External RH (RD317 only) Internal Tilt Roll GPS Module RF Communications	Peripherals RD299 HPT RD400 Remote Accel. RD401 Remote Indicator RD404 Tilt and Roll Satellite / Cellular / Display External	RD401 On Warns On Alarms Battery Power Reset via External iButton Password Password: Confirm:

The following Slot content options will be available:

Firmware Options Set	tings Slots Events Slot Alarms T&R Alarms	Finish	
Slot Contents		1	
Max Peak X	🕑 Internal Temperature 🔲 Internal Tilt	Journey Duration	
🛃 Max Peak Y	🗍 External Temperature 🔲 Internal Roll	Clat Interval	
🔄 Max Peak Z	External Humidity	Slot Interval	
Min. Peak X	External Dew Point	10 Sec 🗸	
Min Peak Y		Max. No. / Run time	
Min Peak 7	HPT Temperature	93491 10Days	
	HPT Humidity	Summary Interval	
	HPT Dew Point	1 Hour ~	
	HPT Pressure	Run time	
	- and the second second	42Days, 16Hours.	
			Continue >>



Once the Slot intervals are updated and the "Continue" button is clicked, the user will reach the "Events" tab. This tab is where the impact alarm thresholds are set. Note that both alarm and warning events are reported/ transmitted by the ShockLog and the ShockLog Cellular GL device.

Length: 32 Kbytes V	Number Events: 108	Range 'g' or 'Velocity'	Hardware Filter 250 V Hz
Always Max. Ordered Data	Auto Thresholds	Options: Warn ( Alarm (	Basic ✓ %) 40 € %) 50 €

The "Slot Alarms" tab is where temperature, humidity, pressure, and dew point slot alarm thresholds are set. Note that all threshold crossings and subsequent above threshold measurements will be reported by the ShockLog.

mware Options Setting	as Slots E	events Slot Alam	ns T&R Alarms	Finish				
gRMS (Vibration)								
gRMS X (%): 75 🌩	Enable							
gRMS Y (%). 75 📫	Enable							
aRMS Z (%): 75 €	Enable							
Environment	1	_			_		1	
Environment	Low Limit	External	RD299 HPT	High Limit	External	RD299 HPT	1	
Environment Temperature (°C)	Low Limit	External Enable 🗌	RD299 HPT Enable	High Limit	External Enable	RD299 HPT Enable	1	
Environment Temperature (°C) Humidity (%):	Low Limit	External Enable ( Enable ()	RD299 HPT Enable 🗍 Enable 🗍	High Limit	External Enable 🗍 Enable 🗍	RD299 HPT Enable	1	
Environment Temperature (°C) Humidity (%): Dew Point (°C)	Low Limit 0 ‡ 0 ‡ 0 <b>‡</b>	External Enable 📄 Enable 🗐 Enable 🗐	RD299 HPT Enable () Enable () Enable ()	High Limit 0 ‡ 0 ‡	External Enable 🗌 Enable 🗍	RD299 HPT Enable		

The user must continue to the "T&R Alarms" tab to configure tilt and roll alarms. This option is possible if the ShockLog 298 used has the capable hardware and the Tilt & Roll option is enabled on the "Firmware Options" tab.





imware Options	Settings	Slots	Event	s S	lot Alarms	T&R	Alarms	Finish	(		-	
Tilt and Roll		-	-	Int	emal O		-	Exte	emali (	0		
	Till Uppe	er limit	(degree):	0	-	Enable		0	*	Enable		
	Roll Uppe	er limit	(dagree):	0	-	Enable	0	0	÷.	Enable		
	Till Low	er limit	(degree):	-2	-	Enable		0	*	Fnable		
	Roll Law	-	(degree)	-2		Enable	0	0	5	Enable		

Finally, the user continues to the "Finish" tab to review a summary of the selections made. If all choices are correct, the user will click the green arrow button to send the setup to the ShockLog.

😼 Setup - 298			×
Firmware Options Settings Slot	s Events Slot Alarms T&R Ala	ms Finish	
Setup Name: 13	SLC-GL Setup		
Start Date:	11/19/2024 9:06:12 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:35 Y:35 Z:35 Hardware filter: 250 Hz	Record Length 32K Max. Record Time 1 Seconds Max. No. Events 108 Filter Frequency 250Hz Always Max.	Interval 10 Sec Total run time 2Days 0Hours Max. No. Slots 17313 No. Contents set: 15 No. Alarms set: None Selected	Interval 1 Hour Total run time 42Days 16Hours
Standard Options	Factory Options	Peripherals	RD401
	External RH/T Internal Tilt Roll	RD299 HPT Satellite / Cellular / Display	

# **Access to Cloud Platform**

Each device is shipped with a card containing its "Registration Token."

Users can either scan the QR code or follow the link to register a new device.







#### **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.

tate Profile			
unormal associations of the processed (			
apertante			
Full Starts	1		
(par)			
Temperatura lutia	E Cecus no	*	
Ling Parmat	🗇 emilia (2024)	*	
7042.04	O UTC-05/00 Sestem Time (VS-3-Car	weist Bayesa Lona 🔶 👻	
	e under Personn		
Jamier2-			Cenerate Password

#### **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.

	▲ SIGN
Username	
Password	Reset Password?
	۵
Remember Me	Sign In

#### Dashboard

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







#### **Navigation Bar**

When the cursor is positioned over the left side of the DASHBOARD, the NAVIGATION BAR will appear. This menu allows the user to choose the appropriate screens for configuration and visualization of of assets and contracts.



#### **Assets Management Screen**

By using the Navigation Bar to enter the Asset Management Screen, the user will display summary information for each of their devices.

Spet	See										Tyson Stuepe
=	Asset Management										🐐 / Asart Managerra
2	Asset Management	0									
	ration III	123456 - Dullas Dennu		-	time 🖩 Vewal		ADME	<b>II</b> 9.0	QL.		
85	to y records per p							300			
12	Client	Asset Type	Unit ID Nam	ne .	* Contract	Last Contact	Contact Typ		Statue	Activated	
3	Mexico test	3.09.	SC#000189	564000186					*	105	• 4
0	Ugligs Demo Clent	SOLGE	5K,40200719	SC4000019	SUCADON-12	2024/09/06 18:17:48	(int)		•	2024-09-05-	• •
×	Usitas Demo Likent	SLUE	M. 4000018	56.4000018	SUCACION/12	000411407000423	Vot		•	2014-09-06	• •
-10	Dasias Demo Client	SLCGL	SC4000017	\$C4000017	SLC4001/12	202411(14 22:15:04	New .		•	2024-09-06	• •
40	Dalias Demo Client	9.09.	SC4000018	564000016	5LC4001-12	2024/11/18 22:11:30	Vot		• •	2024-09-06	• •
Q <sup>6</sup>	Dalias Denvo Climit	SLČGI.	SC4000013	SC4000015	SLC400N+12	2024-11-07 19:32:56	Voğ		• •	2024-09-06	• •
0	Thaling Therein Planet	0.00	55400014	574/0014	0.72039-12	20234113.18 09-77:40	Viet			2024-09.0k	• •
0	Dallas Derris Clearf	9/19	574000113	524000011	sir analis	2034-11-14 22:32:50	Vor		•	1074-09-08	

Below are definitions for the fields and buttons found on the Asset Management Screen:

- Client: Company name of Client (purchaser) of the connected device.
- Asset Type: Type of SpotSee connected asset (SpotBot GL, ShockLog Cellular GL, etc.)
- Unit ID: Serial number of the unit (this number can be found on the front label of the device)
- Contract: Service contract associated with the device (3 Month, 6 Month, or 12 Month)
- Last Contact: Date and time when the unit last reported to the SpotSee Cloud
- Contact Type: Methodology used to deliver the most recent position of the unit (Visit = WiFi, Cell = Cellular Network)
- **Status:** Activation status of the device (green icon = active, red icon= inactive, and yellow icon = update pending)
- Activated: Date the unit was activated



Users can view or edit detailed information for specific devices by clicking on one of the following icons associated with that device.



By clicking on the pin icon the user will open a new window with last reported geographic location of the device in google maps.





Clicking on the blue eye icon allows provides access to a screen with Asset Details, the Trip Route, the Trip Communication History, and the Impact Data for that specific device. From this screen the user can change the date range of the data viewed. The user can also deactivate the asset from this screen.

Asset Management					📫 V. Assist Management. ). View Assist 52:40000
View Asset SC40000	6				9 Go Bick
Asset Details					
Fattue	Dellas Dieno		Carl -	123456 Danas Centre Cristle	
Amo da:	SCIEDODOTE #HUM		1000	09990000000000000000000000000000000000	
Contract Type:	SLC400N-12		Contract Period	2324-09-06 2825-99-06	
Lattern	2024-11-10-2211 III (C+ID 2 IOTHAP I BSD		"státuc	Adjust	
Date Range:	2024-11-11	to: 2024-11-18	o Asset Actions:	De Activale Asset 🧠 🛆	







Trip History			B D A •			
Unit ID	Activity	Location Latin	de Longitude	Timestamp		
SC4000016	Summary	View Location 32.9	96.825	2024-11-18 23:11:30		
\$64000016	Summary	View Location 32.94	8 -96.825	2024-11-18 22:11:30		
SC4000016	Summary	View Location 32.9	8 -96.825	2024-11-18 21:11:30		
\$C4000016	Summary	View Location 32.9	8 06.825	2024-11-18 20:11:30		
SC4000016	Summary	View Location 32.9	9 -96.824	2024-11-18 19:11:30		
SC4000016	Summary	View Location 32.9	9 -96.824	2024-11-18 18:11:30		
5C4000016	Summary	View Location 32.9	9 -96.824	2024-11-18 17:11:30		



# $\mathbf{O}_{\mathbf{O}}^{\mathbf{O}}$

By clicking on the yellow settings icon, the user will navigate to the configuration screens for that device. The three tabs on this screen display the current unit configuration, notification, and advanced settings and provide the user with the opportunity to adjust these settings using drop-down menus.



Unit Configuration	Notification Settings	Advanced Configuration	
	Unit Name	ℰ 5C4000016	
	Setup Device	Alarm levels must be set in the Shocklog 298 Software	
		<ul> <li>Save Unit Configuration</li> </ul>	

# **Unit Configuration**

The Unit Configuration tab allows the user to designate the name for a unit (instead of the assigned serial number). Alarm thresholds are defined within the ShockLog software.

The setting change is done over the air; a cell connection is needed for the configuration to be changed so it may take up to 24 hours for the update to be reflected in the unit. Select SAVE CONFIGURATION when you have completed the changes.

nit Configuration	Notification Settings	Advanced Configuration
	Alarm Notifictions	
		Email list to receive Impacts notifications (comma, or semi colon separated list)
		Tick to Enable Alarm Notifications.





# **Notification Settings**

To receive impact Alarm Notifications:

- Enter the email addresses of those to receive the alarms (separated by commas or semi-colons)
- Tick the check box to enable the notifications function
- Click the Save Notification Settings button

Wifi Settings			
	SSID	31	
		Requested value:	
	WiFi Password	Requested Value:	
	SSID 2	<u>ه</u>	
		Requested Value:	
	WiFi Password 2	٩	
rplane Mode			
		Tick to Enable Airplane Mode and appl	y the settings below
	Start Date	i	
		Requested Value: N/A	
	Start Time	O Select Start Time	~ i
	Start Time	Select Start Time Requested Value: N/A	~ i
	Start Time Duration	Select Start Time Requested Value: N/A     Select Duration	~ i



### **Advanced Configuration**

The Advanced Configuration settings allow a user to adjust:

- Wifi Settings known Wifi devices and passwords that the device may communicate with along its journey
- Airplane Mode period when device will be in-flight and should not utilize cellular communication.

#### **Contracts Screen**

By using the Navigation Bar to enter the Contracts Screen, users are able to view Available and Allocated Contracts and make edits or changes to this allocation. The Contracts Screen provides a simple view of the contract length associated with each ASSET owned by the CLIENT.

racts			🚜 / Contracts / /
Contracts			
Contract III	All Contract Types		
10 + records per pa	alle.	Search	
Partner	Client	Unit I5 Unit Name 💡 Contract	Status Activated
Jallas Demn	Dallas Demo Client	SP100180 SP100180 SB4GCON	-3. 2023-08-17
ialias Demo	Gallas Denso Client	5P100146 5P100346 SB4GCON	-3 2023-08-17
allas Demo	Datias Demo.client	SP100113 SP100118 SB46CON	12 2023-07-28

- Contract: Service contract associated with the device (3 Month, 6 Month, or 12 Month)
- Status: The icons in the Status column denote the status of a contract (green check for active and red x for inactive).
- Activated: Date the unit/contract was activated.

The user has the ability to Unallocate, Edit, or Remove Contracts by clicking on the appropriate icons in the final column (hover cursor over the icon to determine its function).

