





8 Bluetooth°



Levelogger 5 App Interface User Guide

October 21, 2020

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High Quality Groundwater and Surface Water Monitoring Instrumentation

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1.0 Introduction	5
1.1 Compatibility	5
1.1.1 Apple [®] Devices	6
1.1.2 Android™ Devices	6
2.0 Levelogger 5 App Interface	7
2.1 Specifications	7
2.2 Installing Batteries	8
2.3 Power Button	8
2.4 LED Status	9
2.5 Deployment	9
2.5.1 Levelogger Deployment	9
2.5.2 LevelVent Deployment	10
2.5.3 AquaVent Deployment	11
3.0 Activating the System	12
4 0 Solinst Levelogger App	13
4 1 Downloading the App	14
4 1 1 iOS App	14
4 1 2 Android App	14
4.2 Navigation Menu	15
4.3 User Defaults	16
4 4 App Information	17
4.5 Connecting Dataloggers	18
4.5.1 Datalogger Firmware	19
4 6 Dataloggers Home Screen	20
5.0 Downloading Data	20
6.0 Edit Datalogger Settings	21
6.1 Datalogger Identification	20
6.2 Datalogger Identification	24
6.3 Datalogger Sampling Mode	24
6.3.1 Linear Sampling	20
6.3.2 Event Sampling	20
6.3.3 Schedule Sampling	27
6.4 Datalogger Channels	20
6.4.1 Channel 1. Lovel	29
6.4.2 Channel 2: Temperature	29
6.4.3 Channel 3. Conductivity	30
6.4.4 Bainlogger Channel	30
6 5 Datalogger Time	31
6 6 Data Set Geographic Location	31
6.7 Vented Dataloggers Zero	32
6.8 Starting and Stopping Solinst Dataloggers	33
6.8.1 Starting Solinst Dataloggers	33
6.8.2 Stopping Solinst Dataloggers	34
7 0 Saved Settings	2F
7 1 Program Settings	35 25
7.2 Apply Settings	33 27
8 0 Real-Time View	307 202
0.0 Neal-Time view	



9.0 Viewing Saved Data Logs	41
10.0 Sharing Data Logs	44
10.1 E-mailing and Sharing Data Logs	44
10.2 Transferring Data Logs	46
10.2.1 Transfer from iOS	46
10.2.2 Transfer from Android	46
11.0 Diagnostics	47
11.1 Run Diagnostics	48
11.2 Send Report	49
11.3 Load Previous Logs	50
11.4 LTC Calibration History Report	51
11.5 Regenerate Data Files	52
11.6 Clear Datalogger Zero	53
12.0 Conductivity Calibration	54



1.0 Introduction

The purpose of this User Guide is to describe the operation of the Levelogger[®] 5 App Interface, as well as the functionality of the Solinst Levelogger App.

The Levelogger 5 App Interface uses *Bluetooth*[®] wireless technology to connect a Solinst datalogger to your smart device. Once connected, you can use the Solinst Levelogger App on your device to communicate with the datalogger. The Solinst Levelogger App allows you to view and save real time data from the connected datalogger, as well as download, view, transfer and e-mail logged readings. You can program the datalogger or apply a saved Setting. The Levelogger App also provides the ability to obtain diagnostic information from a connected datalogger, as well as perform a conductivity calibration for a Levelogger LTC.

1.1 Compatibility

The Levelogger 5 App Interface is compatible with the Levelogger 5, Barologger 5, Levelogger 5 Junior, Levelogger 5 LTC, Rainlogger 5, LevelVent 5 and AquaVent 5, as well as Levelogger Edge Series dataloggers, LevelVent and AquaVent using the following firmware versions (or higher):

Datalogger	Firmware Version
Levelogger 5	1.001
Barologger 5	1.001
Levelogger 5 Junior	1.001
Levelogger 5 LTC	1.001
Rainlogger 5	1.001
LevelVent 5	1.001
AquaVent 5	1.001/1.000
Levelogger Edge	3.004
Barologger Edge	3.004
Levelogger Junior Edge	3.004
LTC Levelogger Edge	1.003
Rainlogger Edge	3.001
LevelVent	1.000
AquaVent	1.000/1.000

Table 1-1 Compatible Datalogger Firmware Versions

Note: If you connect a Levelogger that has an older version of firmware to the Solinst Levelogger App, a warning message will appear in the App (see Section 4.5.1).

Note: The AquaVent 5 Loggers and Wellheads have separate firmware versions, 1.001/1.000 (or higher) respectively.



1.1.1 Apple[®] Devices

The Solinst Levelogger App can be downloaded from the Apple App Store^{ss} to an Apple smart device that is running iOS 11.2, or later.

Made for:

- iPhone
- iPad

1.1.2 Android[™] Devices

The Solinst Levelogger App is available for download on Google Play™. The Solinst Levelogger App and Interface are compatible with tablets and smartphones running Android Version 9.0 or higher.

Tested on the following devices:

- Samsung S9 Model SM-G960W
- Google Pixel 3 Model G013A



2.0 Levelogger 5 App Interface



Figure 2-1 Levelogger 5 App Interface

2.1 Specifications

Levelogger 5 App Interface Specifications				
IP Rating: IP 64 (dust and splash resistant)				
Materials:	Black Delrin®, 316 stainless steel, Viton®			
Operating Temperature:	-20°C to +50°C			
Batteries:	4 x 1.5V AA replaceable lithium (or alkaline)			
Size:	ø 57 mm x 124 mm (ø 2.25″ x 4.875")			
Weight:	388 grams (13.7 oz.) (with lithium batteries)			
Typical Bluetooth Comm. Range:	up to 10 m (30 ft)			
Auto-off:	10 minutes of inactivity			

Table 2-1 Levelogger 5 App Interface Specifications



2.2 Installing Batteries

The Levelogger 5 App Interface comes with four 1.5V AA replaceable lithium batteries that can be easily changed when required.

Note: Regular alkaline batteries can also be used, but the battery gauge estimates will not be accurate.

To install/replace the batteries:

- 1. Unscrew the top of the Levelogger 5 App Interface to access the battery holder.
- 2. Carefully, remove the battery holder from the Levelogger 5 App Interface.
- 3. Ensure proper polarity when replacing the batteries. Please pay attention to the positive {+} and negative [-] symbols etched in the holder/housing.
- 4. Ensure proper alignment, and slide the battery holder back into the Levelogger 5 App Interface housing.

Note: The Levelogger 5 App Interface LED will flash yellow to indicate proper battery installation.

5. Screw the top of the Levelogger 5 App Interface back onto the housing.



Figure 2-2 Installing/Replacing Levelogger 5 App Interface Batteries

1.5V Lithium AA Battery Life Estimates				
Datalogger Downloads	500 full downloads @ 21°C			
Sleep Time	~10 years @ 21°C			

Table 2-2 Levelogger 5 App Interface Battery Life Estimates

2.3 Power Button

To turn the Levelogger 5 App Interface on, press and hold the power button for 1 second. To turn the Levelogger 5 App Interface off, press and hold the power button for 3 seconds.

The Levelogger 5 App Interface has an auto-off after 10 minutes of inactivity to help conserve the batteries.

2.4 LED Status

The Levelogger 5 App Interface has an LED light that indicates its status when it is turned on.

Green light flashing every second: Ready/waiting for a Bluetooth connection to be made from your smart device.

Blue light flashing every 3 seconds: Bluetooth connection has been made.

Note: On an Android device, the light will not flash blue until the Bluetooth connection is made **and** the Solinst Levelogger App is open.

Yellow light: Levelogger 5 App Interface is turning off while the power button is held pressed.

Red light flashing every 10 seconds: Batteries are low. Replace the batteries.

2.5 Deployment

2.5.1 Levelogger Deployment

The Levelogger 5 App Interface connects to the top end of an L5 Direct Read Cable, which has a connected Levelogger at the optical end. To connect the Levelogger 5 App Interface to the Direct Read Cable, simply hold on to the top end of the Direct Read Cable, and thread the coupling of the Levelogger 5 App Interface onto the Direct Read Cable connector. The threaded connection is designed to be stable when installed in a Solinst 2" Well Cap Assembly. For more information on the L5 Direct Read Cable and the 2" Well Cap Assembly, please see the Levelogger User Guide.



Figure 2-3 Connecting the Levelogger 5 App Interface to an L5 Direct Read Cable



2.5.2 LevelVent Deployment

The Levelogger 5 App Interface connects to the top end of a LevelVent 5 Wellhead. To connect the Levelogger 5 App Interface to the Wellhead, simply hold on to the Wellhead and thread the coupling of the Levelogger 5 App Interface onto the Wellhead. The threaded connection is designed to be stable when installed in a Solinst 2" Well Cap Assembly. For more information on the LevelVent Wellhead and 2" Well Cap Assembly, please see the Vented Dataloggers User Guide.



Figure 2-4 Connecting the Levelogger 5 App Interface to the LevelVent 5 Wellhead



2.5.3 AquaVent Deployment

The Levelogger 5 App Interface connects to the App Connector Cable, which is connected to an AquaVent 5 Wellhead. To connect the Levelogger 5 App Interface to the Connector Cable, simply hold on to the top end of the Connector Cable, and thread the coupling of the Levelogger 5 App Interface onto the Connector Cable. The other end of the Connector Cable connects to the 10-pin (Solinst Protocol) connection on the AquaVent Wellhead. See the Vented Dataloggers User Guide for more details.

Note: While the AquaVent is communicating with the Levelogger App, an SPX Wellhead will ignore or provide timeout responses to any requests if connected to a MODBUS or SDI-12 network at the same time.





3.0 Activating the System

- 1. Download the Solinst Levelogger App on your smart device. The Solinst Levelogger App is available from the Apple App Store and on Google Play. See Section 4.1.
- 2. Connect the Levelogger 5 App Interface to the top end of your Levelogger's L5 Direct Read Cable or Adaptor, LevelVent 5 Wellhead, or the AquaVent 5 Wellhead Connector Cable. Turn the Levelogger 5 App Interface on by pressing and holding the power button for 1 second.
- 3. Enable (turn on) Bluetooth on your smart device by going to Settings > (General) > Bluetooth.
- 4. Pair the Levelogger 5 App Interface to your smart device by selecting it from the list of Bluetooth devices (the Levelogger 5 App Interface will be identified in the list by "Solinst-BT" and its serial number).

Note: You will only have to pair your Levelogger 5 App Interface to your smart device once. Your Levelogger 5 App Interface will be added to your list of paired devices.

5. Go to the home screen on your iOS device and tap to launch the Solinst Levelogger App, or swipe through your Apps on your Android smart device and tap to launch the Solinst Levelogger App.



4.0 Solinst Levelogger App

The Solinst Levelogger App is streamlined and very intuitive, making it effortless and easy to use.

The Solinst Levelogger App provides information about a connected datalogger, including battery level, serial number, and location. The Solinst Levelogger App allows you to immediately check real time readings from a connected datalogger, as well as view saved data logs in a graph or list format.

The logged data can be downloaded to your smart device. You can e-mail the downloaded data logs right from the Solinst Levelogger App, or you can connect your smart device to your computer and transfer data logs.

The Solinst Levelogger App provides all major programming options available with the Solinst Levelogger PC Software. You can save up to 10 customized Settings that can be applied to dataloggers when required.

The Solinst Levelogger App also provides the ability to obtain diagnostic information from a connected datalogger, as well as perform a conductivity calibration for a Levelogger LTC.



Figure 4-1 Solinst Levelogger App Home Screen on iOS - No Datalogger Connected

Figure 4-2 Solinst Levelogger App Home Screen on Android - No Datalogger Connected

Note: When first launching the Solinst Levelogger App, there will be Sample Files available to view for each datalogger type.



4.1 Downloading the App

4.1.1 iOS App

The Solinst Levelogger App can be downloaded from the Apple App Store to an Apple smart device that is running iOS 11.2, or later. See Section 1.1.1 for compatible devices.

- 1. To access the Apple App Store, tap the "App Store" icon from the home screen of your Apple smart device. You must be connected to strong Wi-Fi or mobile data (3G/4G).
- 2. Tap the "Search" button, and type in "Solinst". The Solinst Levelogger App should be displayed.
- 3. Tap the Solinst Levelogger App listing, then tap "free" to download the App.
- 4. You will be prompted to enter your iTunes password (if you do not already have an iTunes account, you will need to create one). You will automatically leave the App Store.
- 5. The Solinst Levelogger App icon will be displayed on your home screen, along with a progress bar. Once the download is complete, the App is ready to use.

4.1.2 Android App

The Solinst Levelogger App can be downloaded on Google Play to your smart device running Android 9.0 or higher.

- 1. Tap to open the Google Play store app on your Android device. You must be connected to strong Wi-Fi or mobile data (3G/4G).
- 2. Tap "Apps", then the search icon, and type in "Solinst". The Solinst Levelogger App should be listed.
- 3. Tap the Solinst Levelogger App listing, then tap "Install" to download the App.
- 4. Tap "Accept", after reviewing the App's permissions.
- 5. The Solinst Levelogger App icon will be displayed with the other Apps on your device. Once the download is complete, the App is ready to use.



4.2 Navigation Menu

Access to the Navigation Menu appears at the top left of every screen **E**. Tap **E** again to hide the Navigation Menu.

Note: There will also be "back" arrows at the top left to take you to the previous screen, where applicable.



Figure 4-3 Solinst Levelogger App Main Navigation Menu on iOS - No Datalogger Connected

Figure 4-4 Solinst Levelogger App Main Menu on Android - Datalogger Connected

Tap 🗮 to get the following options in the Navigation Menu:

Dataloggers: Takes you to the Home Screen that shows the connected, and previously connected dataloggers. You can connect a datalogger, download data, program and start/stop a connected datalogger, apply a saved Setting, or view real-time data. You can view data from previously connected dataloggers (see Section 4.6).

Start/Stop/Edit Settings: Program the connected datalogger's settings, and start or stop the datalogger recording (see Section 6.0).

Note: If there is no datalogger connected, the Start/Stop/Edit Settings menu item will change to View Datalogger Settings. This allows you to view the settings of previously connected dataloggers in the list.

Saved Settings: Program and save up to 10 Settings that can be applied to a connected datalogger (see Section 7.0).

Real-Time View: View readings from the connected datalogger as they are logged (see Section 8.0).



Diagnostics: Obtain information about the connected datalogger that can help identify and fix any problems you may encounter with your datalogger (see Section 11.0).

Conductivity Calibration: Perform a conductivity calibration for an attached Levelogger 5 LTC or LTC Levelogger Edge (see Section 12.0).

User Defaults (Section 4.3) and About Solinst (Section 4.4) are also options.

Note: Swiping across to the left when viewing the Navigation Menu will take you to the last screen you were viewing.

4.3 User Defaults

Selecting User Defaults from the Navigation Menu, will allow you to set defaults for the Application.



Figure 4-5 Solinst Levelogger App User Defaults - iOS

Figure 4-6 Solinst Levelogger App User Defaults -Android

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File Name Settings: The *.xle data file names are generated based on the items you select.

Note: To access the File Name Settings and allow automatic time synchronization on an iOS device, go to iOS Settings App > Solinst.

Plot Settings: These settings allow you to select how much information is shown when viewing graphed data.

Sound Settings: You have the option to play sounds to alert when a datalogger is successfully connected and when data from the connected datalogger has been downloaded completely (or if the data download fails).

Automatically Sync Time: When this default is selected, the clock in each connected datalogger is automatically synchronized to your device clock as it is started logging. This can also be done manually (see Section 6.5).



4.4 App Information

Selecting **About Solinst** from the Navigation Menu, displays information about the Solinst Levelogger App, including version number, and Solinst company contact information with a link to the Solinst website. If using a smartphone, you can also call Solinst for support.



Figure 4-7 Solinst Levelogger App Information - iOS



Figure 4-8 Solinst Levelogger App Information -Android



4.5 Connecting Dataloggers

When the Solinst Levelogger App is launched, if a connected datalogger is detected, a message at the top of the App will indicate "Connected datalogger was detected." It will automatically connect.

Note: When a datalogger is successfully connected, a user-selected tone will sound from the smart device, if enabled in User Defaults (Section 4.3).

If no datalogger is connected/detected, the message "Connect" will appear at the bottom of the Dataloggers Screen. Connect or check the datalogger, and tap the message to connect the datalogger.

Note: The Levelogger App Interface has to be powered on and paired with your smart device in order for the "Connect" message to appear.

Note: The datalogger list can be "pulled" when switching dataloggers to both disconnect the old datalogger and reconnect the new datalogger.



Figure 4-9 Connecting a Datalogger from the Dataloggers Screen - iOS



Figure 4-10 Connecting a Datalogger from the Dataloggers Screen - Android



To disconnect a datalogger at any time, tap the Bluetooth symbol 🔊, and select "Disconnect".



Figure 4-11 Disconnecting a Datalogger

Note: After you have disconnected the datalogger, the Levelogger 5 App Interface will still be paired with your smart device. You can connect another datalogger as described, or turn off the Levelogger 5 App Interface.

Note: The Levelogger 5 App Interface has an auto-off after 10 minutes of inactivity.

4.5.1 Datalogger Firmware

If a connected datalogger has outdated firmware, a message will appear above the datalogger image.



To update your datalogger with the most recent firmware version, go to www.solinst.com/downloads to download the required firmware and instructions. You will require the Firmware Upgrade Utility that is packaged with the latest Levelogger PC Software Version. Follow the instructions to update the datalogger's firmware.



4.6 Dataloggers Home Screen



Figure 4-14 Dataloggers Screen with Connected Datalogger - iOS

Information about the currently connected datalogger will automatically be retrieved and displayed at the top of the Dataloggers Screen. Information includes the datalogger location (if previously programmed), serial number, battery level, the date the datalogger was last connected, and the Status (e.g. Logging or Stopped).

You can download logged data (Section 5.0), edit the datalogger's settings and start/stop the datalogger (Section 6.0), apply a saved Setting (Section 7.0), view and save real time readings (Section 8.0), view saved data files (Section 9.0), obtain diagnostic information (Section 11.0), and perform a conductivity calibration (Section 12.0). You can also zero a vented datalogger to the current atmospheric pressure (Section 6.7).

The Dataloggers Screen will also show dataloggers that were previously connected. You can select to sort this list of dataloggers by log start date, last used, file name, or location. The datalogger that is currently connected will always be shown first, and will have the Bluetooth symbol and "Connected Datalogger" below the image, to indicate that it is connected. A red number on a datalogger image indicates that there is that number of saved data files available to view from that datalogger. See Section 9.0 for viewing data files.

Note: For iOS devices, to remove dataloggers from the list, swipe the datalogger image to the left and select "Delete", or select "Edit" at the top of the list and tap the red icon next to the datalogger to remove it from the list.

Note: For Android devices, to remove dataloggers from the list, select and hold the datalogger image until a check box appears, or select "Edit" at the top of the list. Check the datalogger(s) that you want to delete, then click the trash can icon to delete the datalogger(s).

Figure 4-15 Dataloggers Screen with Connected Datalogger - Android



5.0 Downloading Data



To download data from a connected datalogger, select from the download options on the Dataloggers Screen.

For Levelogger 5 Series dataloggers, there will be the options to download All Data, Append Data, or download and/or delete Old Log Files. For Levelogger Edge Series dataloggers, there will be the options to download All Data or Append Data.

Note: For Levelogger Edge Series dataloggers, you can recover and download data from the previous logging session using the Diagnostic Utility (see Section 11).

Selecting All Data will create a data log of all the data from the most recent logging session.

Selecting **Append Data** will automatically append the data to a data log from that same datalogger stored in the App. The stored data log and the attached datalogger should have the same serial number and start time, otherwise an error will occur (see Section 9.0 for viewing/opening previously saved data logs).





For Levelogger 5 Series dataloggers, selecting **Old Log Files** brings up a window with a list of all logging sessions currently stored in the datalogger's memory. Select the files that you want to download.

To access the full memory, select Delete All Files. This will free-up memory before starting a Levelogger 5 Series datalogger (See Section 6.8).



Figure 5-3 Old File Logs – iOS



Figure 5-4 Old Log Files – Android

A tone from the smart device will sound when the data has been successfully downloaded (if enabled in User Defaults (Section 4.3)).

Note: Downloads and Real-Time readings can occur at the same time. You can place the App in the background (e.g. answer a phone call) while waiting for a download to complete.

A red number "1" will appear on the connected datalogger image, or it will update/increase if there were previously downloaded data logs from that datalogger.

Note: See Section 9.0 for viewing saved data logs, and Section 10.0 for e-mailing or transferring data logs.



6.0 Edit Datalogger Settings

To program the settings of a connected datalogger, select **Start/Stop/Edit Settings** from the Navigation Menu, or select **Start/Stop/Edit** from the options on the Dataloggers Screen.

	0		2:52		
< ≡	🗄 🛞 SN 21228	884	=		
	Identification	n		Identificatio	n
	Solinst Levelogo	<u>er 5</u>	<u>So</u>	linst Levelogger 5	. (
SN 2122884	M5 V1.000	97%	SN 1080256 M	5/C80 V1.000	99
Location	Solinst				
Project	Well 2		Location	Solinst	
	Datalogger Sta	tus	Project	Well 2	
Started	27 Aug 2020 a	at 2:45:45 PM	Da	atalogger Sta	atus
Stopped	27 Aug 2020 a	at 2:46:40 PM	Status	Stop	ped
D	atalogger Samplin	ng Mode	Started	Sep. 10, 2020	2:51:
Linea	r Event	Schedule	Stopped	Sep. 10, 2020	2:52:
		upped .	Datalo	gger Sampli	ng M
lle	ed: 56 logs: Free: 140	944 logs	Linear	Event	Sc
Future Sta	rt <no futu<="" th=""><th>re Start></th><th colspan="2">Slate logs @ 2 Seconds</th><th>conds</th></no>	re Start>	Slate logs @ 2 Seconds		conds
Future Sto	No Futu	ire Stop>	Used 21 logs; Free: 99979 lo		
Sta	rt Now	Stop Now	Future Start	<no future="" st<="" td=""><td>art></td></no>	art>
	Channel 1		Future Stop	<no future="" st<="" td=""><td>op></td></no>	op>

Note: The connected datalogger will be identified by its serial number at the top of the screen on an iOS device.

Settings include location and project identification, channel information, sampling and memory modes, and synchronizing the datalogger time to your smart device time. You can start and stop a datalogger immediately, or at a programmed future time.

Note: On an iPad, tapping will expand the Settings screen to full screen.

Note: Tapping on the white input fields will activate the keyboard, or enable scrolling to enter the desired settings.

Once you change a setting, that field will be highlighted in yellow. The fields will not be highlighted once the datalogger has started logging, and you have refreshed the settings.

Note: To refresh the settings, pull down/swipe the top of the Solinst Levelogger App screen (from the Identification title bar).

Figure 6-1 Edit Datalogger Settings - iOS

Figure 6-2 Edit Datalogger Settings -Android



6.1 Datalogger Identification

< ≡	* * s	N 21228	84	
	İden	tification		
	Solinst	Levelogge	<u>er 5</u>	101
SN 2122884	M5	V1.000	97%	
Location	Solinst			
Project	Well 2			

Figure 6-3 Datalogger Identification - iOS

	Identification	
	Solinst Levelogger 5	
SN 1080256	M5/C80 V1.000	99%
Location	Solinst	

Figure 6-4 Datalogger Identification -Android

Identification displays the following:

Serial Number (SN): The unique serial number of the connected Solinst datalogger.

Instrument Type: The model of the attached datalogger (i.e. M30, Rainlogger, etc.).

Firmware Version: The firmware version of the connected datalogger (i.e. V1.000).

Battery Level: Shows the percentage battery level remaining.

You can tap the fields to enter the following:

Location: Input specific site/location information.

Note: Do not include a "/" (slash) in your location. This will cause an error when transferring or e-mailing data.

Project: Input your own identification system.

Note: Tapping on the white input fields will activate the keyboard to enter the desired settings.

6.2 Datalogger Status

	Datalogger Status		
Status	Stopped	Status	Stopped
Started	27 Aug 2020 at 2:45:45 PM	Started	Sep. 10, 2020 2:51:
Stopped	27 Aug 2020 at 2:46:40 PM	Stopped	Sep. 10, 2020 2:52:

Figure 6-5 Datalogger Status - iOS

Status	Stopped
Started	Sep. 10, 2020 2:51:49 p.m.
Stopped	Sep. 10, 2020 2:52:29 p.m.

Figure 6-6 Datalogger Status - Android

Datalogger Status displays the following:

Status: Indicates if the datalogger is "Logging", "Stopped", or if it has been set with a future start time: "Waiting to Start".

Started: Indicates the date and time the datalogger was last started.

Stopped: Indicates the last date and time the datalogger was stopped.

Note: To refresh the settings, pull down/swipe the top of the Solinst Levelogger App screen (from the Identification title bar).



6.3 Datalogger Sampling Mode

Datalogger Sampling Mode			Datalog	gger Sampli	ng Mode
Linear	Linear Event Schedule			Event	Schedule
Slate logs @ 1 second			Slat	e logs @ 2 Se	conds
Used: 56	logs; Free: 149	9.944 logs	Used 2	1 logs; Free: 9	9979 logs
Future Start	<no futu<="" td=""><td>ire Start></td><td>Future Start</td><td><no future="" s<="" td=""><td>tart></td></no></td></no>	ire Start>	Future Start	<no future="" s<="" td=""><td>tart></td></no>	tart>
Future Stop	<no futu<="" td=""><td>ire Stop></td><td colspan="2">Future Stop <no future="" stop=""></no></td><td>top></td></no>	ire Stop>	Future Stop <no future="" stop=""></no>		top>

Figure 6-7 Datalogger Sampling Mode - iOS

Figure 6-8	Datalogger	Sampling	Mode - Android
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The Datalogger Sampling Mode section allows you to choose the sampling measurement type. Options are Linear, Event, or Schedule. The final sampling mode that is **Saved** for the connected datalogger will be displayed. The number of used and free logs in the datalogger memory will also be displayed. Please refer to Table 6-1 for a summary of the available sampling and memory options for each datalogger type (See the Levelogger User Guide for older Levelogger models).

Note: To refresh the settings, pull down/swipe the top of the Solinst Levelogger App screen (from the Identification title bar).

	Datalogger Programming Options							
Datalogger Type	Sampling Options	Memory Capacity	Battery Life					
Levelogger 5	Linear (0.125 second to 99 hours), Event Based, Schedule, Repeat Schedule, Real Time View, Future Start/Stop	1500,000 sets of readings in Slate or Continuous Mode	10 years based on 1 reading per minute					
Barologger 5	Linear (0.125 second to 99 hours), Event Based, Schedule, Repeat Schedule, Real Time View, Future Start/Stop	1500,000 sets of readings in Slate or Continuous Mode	10 years based on 1 reading per minute					
Levelogger 5 Junior	Linear (0.5 second to 99 hours), Real Time View, Future Start	75,000 sets of readings in Slate or Continuous Mode	5 years based on 1 reading per minute					
Levelogger 5 LTC	Linear (2 seconds to 99 hours), Event Based, Schedule, Repeat Schedule, Real Time View, Future Start/Stop	100,000 sets of readings in Slate or Continuous Mode	8 years based on 1 reading every 5 minutes					
Rainlogger 5	Event Based (records tips from tipping-bucket rain gauge), Real Time View, Future Start	Up to 100,000 tip time logs in Slate or Continuous Mode	10 years based on 2 parameters logged every 10 minutes					
LevelVent 5	Linear (0.125 second to 99 hours), Event Based, Schedule, Repeat Schedule, Real Time View, Future Start/Stop	1500,000 sets of readings in Slate or Continuous Mode	10 years based on 1 reading per minute					
AquaVent 5	Linear (0.125 second to 99 hours), Event Based, Schedule, Repeat Schedule, Real Time View, Future Start/Stop	1500,000 sets of readings in Slate or Continuous Mode	8 years based on 1 reading per minute					

Table 6-1 Solinst Datalogger Programming Options





6.3.1 Linear Sampling

Tap **Linear**. Linear refers to a set time interval between collections of readings. You can select to record in seconds, minutes, hours, or days.



Figure 6-9 Edit Linear - iOS

Figure 6-10 Edit Linear -Android

Note: Tap on the "Sample Rate" field to show the time scroll wheel to enter the desired setting. Tap "Done" on your iPhone or iPod. Tap anywhere out of the Edit Linear screen to save the setting on your iPad. Tap "Done", then "Save" on an Android device.

Continuous logging means the new log is started at the end of any previous log and continues logging, eventually recording over the first logged data.

If Continuous logging is not enabled, **Slate** logging is the default memory mode. With slate logging, the new log is also started at the end of any previous log, but will stop recording after the memory is full, so that the beginning of the current log will not be written over.



6.3.2 Event Sampling

Tap **Event**. In Event sampling mode, the datalogger will be activated at every defined **Check** to see if readings have varied by the selected **Change/Offset** from the last recorded reading. You can **Use** "Level", "Temperature", etc., as the monitored parameter.

				2:54		(10.
Done	Edit Event		=			
Use			4		Solinst Levelogger 5	ł
Change	±0.000 °C	- +	s	SN 1080256	M5/C80 V1.000 9	99%
Check every	1 second	- +	[S Edit E	vent	
Ē	atalogger Status			Use	CONDUCTIVITY	
Status	Stopped		- 1	Offeet	100.0 uS/cm	_
Started	27 Aug 2020 at 2:45	5:45 PM		Chook	2 Seconde	
Stopped	27 Aug 2020 at 2:46	5:40 PM	- 1	CHECK	2 Seconds	
Datal	ogger Sampling Mo	ode	- 1			
Linear	Event S	Schedule				
S	late logs @ 1 second					
Used: §	66 logs; Free: 149.944	logs	- 1			
Future Start	<no future="" star<="" td=""><td>t></td><td></td><td></td><td></td><td>_</td></no>	t>				_
Future Stop		D>:		Lised	21 logs: Free: 99979	logs
Start N	ow Stop	Now			211090,1100.99979	logs
	Channel 1		F	-uture Start	<no future="" start=""></no>	
			F	-uture Ston	<no euture="" stops<="" td=""><td></td></no>	

Note: Tapping on the white input fields will show the time/number scroll wheel to enter the desired settings.

The datalogger will record a new reading only if the specified change in the parameter has occurred, when the datalogger is "checked".

A default reading will also be stored in the datalogger memory, every 24 hours from the last recording, if no change occurs.



6.3.3 Schedule Sampling

Tap **Schedule**. Schedule sampling allows you to select a logarithmic style sampling schedule adapted to the needs of each application.

Done	Edit Schedule		Edit
Interval	1s	-	+
Duration	10m	-	+
Interval	10s	-	+
Duration	60m	_	+
Interval	60m		+
3 Duration	48h		+
	E.		
4 Duration	55	-	+
Duration	511	-	+
Interval	Pause	-	+
Duration	1w	_	+
Interval	30s	_	+
6 Duration	5m	_	+
Interval	1s	_	+
7 Duration	1m		+
+	148862 left 9	d	-

Figure 6-13 Edit Schedule - iOS

Figure 6-14 Edit Schedule - Android

Schedule sampling is set by using the plus [+] symbol at the bottom left to add line items to the schedule.

The maximum number of line items in a schedule is 30, each with its own sampling **Interval** of seconds, minutes or hours and **Duration** of seconds, minutes, hours, days or weeks. A "Pause" interval can also be selected, which stops the datalogger from recording for the specified duration.

Note: Tapping on the white input fields will show the time scroll wheel to enter the desired settings.

For iOS devices, select **Edit** at the top right, to remove line items. Check-off the items you want to remove, and tap **Delete** at the top left. You can change the order of the line items by swiping the item up or down at the right of the plus/minus [+/-] symbols.

For Android devices, select **Edit** at the top right, to move or delete line items. You can change the order of the line items by swiping the item up or down at the right of the plus/minus [+/-] symbols. You can swipe the line items to the left/right to delete them.

Running totals of the number of readings still available from the total possible, and the run time are shown at the bottom of the Edit Schedule screen.

By enabling **Repeat Schedule**, the datalogger will continue to run through the schedule until its memory is full, or it is stopped. To enable this on an iPhone, iPod, or iPad tap so it displays the Repeat Schedule icon:



6.4 Datalogger Channels

6.4.1 Channel 1: Level

					1	Channel	
m 🖌		LEVEL	Name	m		LEVEL	Name
- +	m	0.0000	Offset	+	—	0,000 m	Offset
	m	0.0000	Offset	+	-	0,000 m	Offset

Channel 1 for dataloggers is the "Level" channel. The channel can be re-named to suit your project.

You can change the units that this channel will be recorded in. For example, there are six unit options when using a Levelogger 5, Levelogger 5 Junior, and Levelogger 5 LTC; m (default), cm, ft, kPa, bar, and psi. When using a Barologger 5, the options are kPa (default), mbar, and psi.

Note: Tapping on the white input fields will activate the keyboard, or show the scroll wheel to enter the desired settings.

There is the option to include an **Offset** in Channel 1. Offset refers to an adjustment, such as the distance between the tip of the datalogger and the monitoring well cap or static water level. It is recommended that the value of 0.00 be used, as this keeps all subsequent readings relative to the tip of the datalogger. The reference range is -300 m to 5000 m or -1000 to 16,400 ft.

Note: Levelogger 5 and Edge Series dataloggers and Solinst vented dataloggers data can be adjusted for Altitude and Density post data collection using Levelogger PC Software. See Section 10.2 for information on transferring data to your PC.

6.4.2 Channel 2: Temperature



Channel 2 for dataloggers is the "Temperature" channel. The channel can be re-named to suit your project.

You can change the units that this channel will be recorded in. For example, for the Levelogger 5, Barologger 5, Levelogger 5 Junior and Levelogger 5 LTC the temperature channel can be set to °C (default) or °F.

Note: Tapping on the white input fields will activate the keyboard, or show the scroll wheel to enter the desired settings.

Figure 6-16 Channel 1: Level - Android



6.4.3 Channel 3: Conductivity

	Channel 3			Channel 3	
Name	CONDUCTIVITY	μS/cm	Name	CONDUCTIVITY	µS/cm
Figure	6-19 Channel 3: Cond	uctivity - iOS	Figure	6-20 Channel 3: Condu Android	uctivity -

Channel 3 for the Levelogger 5 LTC or LTC Levelogger Edge is the "Conductivity" channel. The channel can be re-named to suit your project. There are two units of measure available to select: mS/cm or $\mu S/cm$.

Note: Tapping on the white input fields will activate the keyboard, or show the scroll wheel to enter the desired settings.

6.4.4 Rainlogger Channel

	Obomool 1			Chann	el I		
	Channel I	1	Name	Rainfall		mm	
Name	Rainfall	in	Bain Cal	1 0000	mm/		+
Scaling	0.100 in/tip	- +	Constant	1.0000	tip		

There is one channel (**Channel 1**) of measurement for the Solinst Rainlogger 5 or Rainlogger Edge. The "Rainfall" channel records each tip time by the connected tipping-bucket and outputs the amount of rainfall per tip. The channel can be re-named to suit your project. There are two units of measure available to select: mm or in.

Note: Tapping on the white input fields will activate the keyboard, or show the scroll wheel to enter the desired settings.

The **Scaling/Rain Cal. Constant** field allows you to enter the calibration factor for the tipping-bucket you will be using. The calibration factor is the amount of rainfall depth (mm, in) per tip. The calibration factor should be indicated on a label on the tipping-bucket device or in the manufacturer's documentation.



6.5 Datalogger Time

The datalogger's internal date and time will be displayed. Select **Sync** to synchronize the datalogger's clock to your device clock. This is useful to synchronize the time for all dataloggers being used in the same project.

Note: Automatic time synchronization can be set to occur each time a connected datalogger is started, by selecting the setting in the User Defaults for each app (see Section 4.3).

6.6 Data Set Geographic Location

Note: The Data Set Geographic Location will only be visible when viewing a disconnected datalogger's settings.

atitude	180.0000 °N	
ongitude	180.0000 °E	

Data Set	Geographic Location
Latitude	43.6529 °N
Longitude	79.9020 °W

Figure 6-25 Data Set Geographic Location - iOS

Figure 6	5-26	Data	Set	Geo	grap	bhic	Locat	ion
		-	An	droid	k			

If you allow the Solinst Levelogger App to access your current location, the GPS coordinates will automatically be recorded in the downloaded file.



Figure 6-27 Access Location Permission

Note: You can also allow access to your current location by going to your Application Settings on your smart device.



6.7 Vented Dataloggers Zero

In the Dataloggers Screen, there is a **Zero Barometric** option to zero a LevelVent 5 or AquaVent 5 vented datalogger to current atmospheric pressure. This will ensure that it is reading 0 in air for the level reading.

Sort by Last Used Edit SN 2125087 26 Aug 2020 Used: 71.194 logs; Free: 78.806 logs Status Stopped Sort by Last Used Connected Datalogger Status Stopped Real-Time All Data Append Data Old Log Files Apply Saved Setting Status Stopped Connected Datalogger Status Stopped Real-Time All Data Append Data Old Log Files Diagnostic SN 2125087 26 Aug 2020 Used: 71.194 logs; Free: 78.806 logs Status Stopped Sort by Last Used Edit SN 2125087 26 Aug 2020 Used: 71.194 logs; Free: 78.806 logs Status Stopped Solinst Solinst Solinst Solinst Solinst Solinst Solinst Solinst Solinst Solinst Solinst Solinst Solinst Oct. 5, 2020 Solinst Solinst Solinst Oct. 5, 2020 Solinst Oct. 5, 2020 Solinst Oct. 2, 2020 <td< th=""><th></th><th>10:40</th><th>ا الد بھ</th></td<>		10:40	ا ا لد بھ
SN 2125087 26 Aug 2020 Used: 71.194 logs; Free: 78.806 logs Connected Datalogger Status Stopped All Data Append Data Old Log Files Apply Saved Setting Start/Stop/Edit Diagnostics Zero Barometric SN 2125087 Sort by Last Used Soft by Last Used Connected Datalogger Status Stopped Soft by Last Used Connected Datalogger Status Stopped Soft by Last Used Connected Datalogger Soft by Last Used Connected Datalogger Status Stopped Soft by Last Used Connected Datalogger Soft by Last Used Connected Datalogger Soft by Last Used Connected Datalogger Status Stopped Status Stopped Connected Datalogger Status Stopped Connected Datalogger Connected Datalogge	Sort by Last Used Edit	≡ Sort By L	ast Used Edit
Status Local Vent S Image: Connected Datalogger Status Stopped Real-Time All Data Append Data Old Log Files Apply Saved Setting Start/Stop/Edit Diagnostice SN 2125087 26 Aug 2020 Used: 71.194 logs; Free: 78.806 logs Status Stopped Status Stopped Status Stopped Status Stopped Status Stopped Status Stop/Edit Diagnostics Zero Barometric SN 2125087 26 Aug 2020 Used: 71.194 logs; Free: 78.806 logs Status Stopped	SN 2125087 26 Aug 2020 Used: 71.194 logs; Free: 78.806 logs	remote start SN 2125082	Oct. 1, 2020
Konnected Datalogger Status Stopped All Data Append Data Old Log Files Apply Saved Setting Start/Stop/Edit Diagnostics Zero Barometric SN 2125087 Sort by Last Used Edit SN 2125087 Sort by Last Used Edit SN 2125087 Used: Zero Barometric SN 2020020 Used: Status Stopped Real-Time SN 2125087 26 Aug 2020 Used: Status Stopped Status Stopped Real-Time All Data Append Data Old Log Files Status Stopped	Solins Level Vent 5	Status Stopped	d Datalogger Real-Time
All Data Append Data Old Log Files Apply Saved Setting Start/Stop/Edit Diagnostics Zero Barometric SN 2125087 Zero Barometric SN 2125087 26 Aug 2020 Used: 71.194 logs; Free: 78.806 logs Startus Stopped Startus Stope <t< td=""><th>Status Stopped Real-Time</th><td>All Data Append</td><td>Data Old Logs</td></t<>	Status Stopped Real-Time	All Data Append	Data Old Logs
Apply Saved Setting Startt/Stop/Edit Diagnostics Zero Barometric SN 2125087: SN 2125087: SN 2060697 Jun. 12, 2020 Jun. 12, 2020 SN 2125087 SN 2125087 Jun. 12, 2020 Jun. 12, 2020 SN 2125087 Used: 71.194 logs; Free: 78.806 logs Status Stopped <	All Data Append Data Old Log Files	Apply Saved Setting	Start/Stop/Edit
Diagnostics Zero Barometric SN 2125087: Sort by Last Used Edit SN 2125087 26 Aug 2020 Used: 71.194 logs; Free: 78.806 logs Status Stopped Status Stopped All Data Apply Swed Sation Status Stopped SN 374807 Oct. 5, 2020 Status Stopped Submit Level Vent 5 Otd Log Files Apply Swed Sation Status (Stopped) Status Stopped	Apply Saved Setting Start/Stop/Edit	Diagnostic	Zero Barometric
Sort by Last Used Edit SN 2125087 26 Aug 2020 Used: 71.194 logs; Free: 78.806 logs SN 2020525 Schurt Leveloger Status Stopped Status Stopped All Data Append Data Old Log Files Status Stopped SN 2125087 Connected Datalogger Real-Time Solinst All Data Append Data Old Log Files Solinst Apply Saved Setting Status Stopped Status Stopped Cero Offset Calibrated! Status Stopped Status Apply Saved Setting Status Stopped Status Cooking it Cero Offset Calibrated! Datalogger Zero Coc Status Ock Ok III	Diagnostics Zero Barometric	<no location=""></no>	
SN 20206697 Jun. 12, 2020 SN 2125087 26 Aug 2020 Used: 71.194 logs; Free: 78.806 logs Sdinst LevelOger Status Stopped All Data Append Data Old Log Files Apply Swed Setting Status(Stop/Edit Datalogger Zero SN 2 T.194 Ok No Location> SN 27.194 Ok SN 2020 at 12:42:32 PM Connected Datalogger Connected Datalogger Connected Datalogger Connected Datalogger Real-Time All Data Append Data Old Log Files SN 2126218 Oct. 2, 2020 III Oct. 2, 2020 III Oct. 2, 2020			
Sort by Last Used Edit SN 2125087 26 Aug 2020 Used: 71.194 logs; Free: 78.806 logs Status Stopped Status Stopped All Data Apply Saved Sattion Status Stopped Status Stopped Solinst Datalogger Zero Data Ok Ok		SN 2060697	Jun. 12, 2020
SN 2125087 26 Aug 2020 Used: 71.194 logs; Free: 78.806 logs Status Stopped Status Stopped All Data Append Data Old Log Files Apply Sawad Satting Status Stopped Datalogger Zero Data: 27 Aug 2020 at 12:42:32 PM Not Constitute SN 2220525 Solinst Solinst SN 374807 Oct. 5, 2020 Zero Offset Calibrated! 25 SN 2126218 Oct. 2, 2020 III Constitute SN 2126218 Solinst SN 2126218 Soli	Sort by Last Used Edit	<u>Solinst</u> Le	evelogger
Used: 71.194 logs; Free: 78.806 logs Solins: Level Vent S Connected Datalogger All Data Apply Saved Sottion SN 2 Status Stopped All Data Apply Saved Sottion SN 2 Cero Offset Calibrated! Datalogger Zero Data: 27 Aug 2020 at 12:42:32 PM Kell Connected Datalog Status Stopped Cero Offset Calibrated! SN 220525 Connected Datalogger SN 374807 Cero Offset Calibrated! SN 2126218 Cet. 5, 2020 Cet. 5, 2020	SN 2125087 26 Aug 2020	<no location=""></no>	
Solinst Level Vent 3 1 Solinst Stopped Solinst Stopped All Data Append Data Old Log Files Apply Saved Sating Statt/Stop/Edit Zero Offset Calibrated! 2 Datalogger Zero ic SN 274807 Oct. 5, 2020 Datalogger Zero ic SN 2126218 Oct. 2, 2020 III C Kill	Used: 71.194 logs; Free: 78.806 logs	SN 2020525	Oct. 5, 2020
Status Stopped Real-Time All Data Append Data Old Log Files SN 374807 Apply Saved Satting Statu/Stop/Gritit Datalogger Zero ic SN 2 Data 2020 at 12:42:32 PM Just Ok III Ok	Solinst Level Vent 5 (1)	Solinst Le	welogger.
All Data Append Data Old Log Files Apply Saved Setting Start/Stop/Er/lit Datalogger Zero ic SN 2 Date: 27 Aug 2020 at 12:42:32 PM 71.194 Ok	Connected Datalogger Status Stopped Real-Time	solinst	
Apply Saved Setting Start/Stor/Er(it Datalogger Zero Date: 27 Aug 2020 at 12:42:32 PM No Location> SN 2126218 Oct. 2, 2020 III O <	All Data Append Data Old Log Files	SN 374807	Oct. 5, 2020
Datalogger Zero ic SN 2 Date: 27 Aug 2020 at 12:42:32 PM 71.194 Ok Ios Ok	Apply Saved SattingStart/Stop/Erlit	Zero Offset C	alibrated! <u>5</u> 5
SN 2 Date: 27 Aug 2020 at 12:42:32 PM 71.194 0k Ios Ok	Datalogger Zero ic	<no location=""></no>	
	SN 2 71 194	SN 2126218	Oct. 2, 2020
	los Ok	III O	<

Figure 6-28 Zero Barometric – iOS

Figure 6-29 Zero Barometric – Android

On an iOS device, after selecting **Zero Barometric** and clicking "OK", the current date and time will be displayed as the **Datalogger Zero Date** in the Dataloggers Settings screen. You can also select Zero Barometric in the Dataloggers Settings screen to zero the datalogger.

On an Android device, after selecting **Zero Barometric** a message will appear stating "Zero Offset Calibrated" and the current date and time will be displayed as the **Zero Offset** in the Diagnostic Utility (See Section 11).

Datalogger Zero Date	Zero Offset Zero Offset Date	2020-10-07
27 Aug 2020 at 12:42:52 PM	Close 70	n Offeet
Figure 6-30 Datalogger Zero Date – iOS	Figure 31 Zero Offse	t Date – Android

Note: You can not perform a Datalogger Zero while the datalogger is running.

The Datalogger Zero can be cleared using the Diagnostic Utility. See Section 11.



6.8 Starting and Stopping Solinst Dataloggers



Linear	Event	Schedule	
Slat	e logs @ 2 Sec	conds	
Used 53	91 logs; Free: 9	4609 logs	
Future Start	<no future="" start=""></no>		
Future Stop	<no future="" st<="" td=""><th>op></th></no>	op>	

Figure 6-32 Starting and Stopping Dataloggers - iOS

Figure 6-33 Starting and Stopping Dataloggers - Android

After adjusting all the desired settings, dataloggers can be started and stopped immediately, or at a set future time for certain datalogger models.

Note: Settings are not saved to an attached datalogger until it is started.

6.8.1 Starting Solinst Dataloggers

Note: Starting a Levelogger Edge Series datalogger will erase any previous recorded readings from its memory.

Select Start Now to start the datalogger recording immediately.

Before starting a Levelogger 5 Series datalogger, a pop-up window will indicate how much memory is available. Selecting "Yes" ignores the message and starts the datalogger immediately with the remaining available memory. Selecting "No" gives you the chance to access **Old Log Files** (option on Dataloggers Screen) to download and/or delete data files to free-up more memory (see Section 5).



Figure 6-34 Datalogger Memory Warning – iOS



Figure 6-35 Datalogger Memory Warning – Android

After "Yes" is selected, the programmed settings will be applied automatically when the datalogger is started. The Logger Status will update from "Stopped" to "Logging".

Note: To refresh the settings, pull down/swipe the top of the App screen (from the Identification title bar).



To program a **Future Start** time, tap the date and time field and scroll to enter the desired Future Start time. Tap the field again, to set the date and time. Once you have entered all the desired settings, including an optional Future Stop time (see Section 6.8.2), tap Future Start or Future Start/Stop.

The Logger Status will update from "Stopped" to "Waiting to start". Once the datalogger reaches the programmed Future Start time, the programmed settings will be applied, the datalogger will begin recording, and the Datalogger Status will update to "Logging" (once the Status is refreshed).

Note: To refresh the settings, pull down/swipe the top of the App screen (from the Identification title bar).

Note: To undo a Future Start, edit the date to one before the current day's date.



6.8.2 Stopping Solinst Dataloggers

To stop a Solinst datalogger from recording immediately, at any time, select Stop Now. The Datalogger Status will update from "Logging" to "Stopped" (once the settings are refreshed).

Note: To refresh the settings, pull down/swipe the top of the Solinst Levelogger App screen (from the Identification title bar).

Note: You can not set a Future Stop time for the Levelogger 5 Junior, Rainlogger 5, Levelogger Junior Edge or Rainlogger Edge dataloggers.

To set a **Future Stop** time, tap the date and time field and scroll enter the desired Future Stop time. Tap the field again to set the date and time. Start the datalogger as described in Section 6.8.1.

Note: A warning message will appear, to ensure you want to set the Future Stop time.

Note: To undo a Future Stop, edit the date to one before the current day's date.

Datalo	gger Samplin	ng Mode	Datalog	ger Sampling Mod
Linear	Event	Schedule	Linear	
	Slate logs @ 1	s	Slate	e logs @ 2 Seconds
Used: 21	9 loas: Free: 3	9.781 logs	Used 0	logs; Free: 100000 logs
Future Start	Jan 2, 2018 at	t 11:50:00 AM	Future Start	<no future="" start=""></no>
Future Stop	Jan 2, 2018 at	t 12:00:00 PM	Future Stop	<no future="" stop=""></no>
Future Start/	/Stop	Future Stop	Start Now	Stop No

Figure 6-38 Setting a Future Stop Time - iOS

Figure 6-39 Stop a Logging Datalogger -Android



7.0 Saved Settings

Up to 10 Settings can be can be customized and saved in the Solinst Levelogger App, which can then be applied to a connected Solinst datalogger.

7.1 Program Settings

To program a Setting, tap **Saved Settings** from the Navigation Menu.

	Saved Settings	Edit
Ó	Settings 1	>
0	Settings 2	>
Ó	Settings 3	\sim
0	Settings 4	>
Ø	Settings 5	>
0	Settings 6	>
	Settings 7	>
Ø	Settings 8	>
0	Settings 9	>
0	Settings 10	>

2.35	EDIT
Setting 1	>
Setting 2 Project	>
Setting 3 Project	>
Setting 4 Project	>
Setting 5 Project	>
Setting 6 Project	>
Setting 7 Project	>
© Setting 8 Project	>
Setting 9 Project	>
Setting 10 Project	>

Figure 7-1 Settings Screen - iOS

Figure 7-2 Settings Screen - Android

Selecting **Edit** at the top right of the screen allows you to shuffle the order that the Settings appear by swiping the Setting up or down at the right of the bar. Select **Done** when finished shuffling.

Note: The colour of the icon next to the Setting name corresponds to the type of Solinst datalogger that the Setting is programmed for, i.e. the blue/black icon shows a Setting that can be applied to a Levelogger 5, the silver icon shows a Setting for a Levelogger 5 Junior .



Select one of the listed Settings to customize, by tapping the icon next to it. You can customize the following for each Settings:

			2:35		÷
く Back	Settings 1		=		
	Identification			Identification	
	Settings 1		Setting Name	e Setting 6	
Location	<no location=""></no>		Location		
Project	<no project=""></no>		Project	Project	
			Logger Type	Solinst Levelogg	<u>er5</u>
Туре	Solinst Levelogger's	5	Datalo	gger Sampling	Mode
Da	atalogger Sampling Mo	de	Linear	Event	Schedule
Linea	r Event Se	chedule	Slate	e logs @ 15 Minu	tes
	Slate logs @ 15 minutes		Future Start	<no future="" start:<="" th=""><th>2</th></no>	2
Future Star	<no future="" start<="" th=""><th>></th><th>Future Stop</th><th><no future="" stop=""></no></th><th></th></no>	>	Future Stop	<no future="" stop=""></no>	
Future Stop	o <no future="" stop<="" th=""><th>></th><th></th><th>Observal 1</th><th></th></no>	>		Observal 1	
	Channel 1			Channel I	
Name	Level	m	Name	Level	m
011-1	0.000				
Offset	0,000 m	- +	Name	Temperature	°C
	Channel 2			Channel 2	
Name	Temperature	°C		Channel 3	
			Name	Conductivity	mS/c

Figure 7-3 Customizing a Setting - iOS

Figure 7-4 Customizing a Setting - Android

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Note: Tapping on the white input fields will activate the keyboard, or enable scrolling to enter the desired settings.

Note: On an iPad, tapping will expand the Setting screen to full screen.

Setting Name: Input a name for the settings file.

Location: Input specific site/location information.

Project: Input your own identification system.

Datalogger Type: Select the datalogger type by tapping the datalogger image and scrolling through the image options. Select **Done** at the top right, after you have selected the datalogger.

Datalogger Sampling Mode: choose between Linear, Event, or Schedule sampling mode (see Section 6.3), and set a Future Start and Future Stop time, if desired.

Channels: program "Level", "Temperature", "Conductivity", and "Rainfall" Channels. See Section 6.4.



7.2 Apply Settings

To apply a Setting to a connected datalogger, select **Apply Saved Setting** from the options on the Dataloggers Screen.



Figure 7-5 Apply a Saved Setting - iOS

Figure 7-6 Apply a Saved Setting - Android

Select, and tap **Apply** to apply the desired Setting from the list. Start the datalogger from the Dataloggers Screen, or as described in Section 6.8.

Note: Only Settings that are applicable for the connected datalogger will show up in the list.



8.0 Real-Time View

To view real-time readings from a connected datalogger, select **Real-Time View** from the Navigation Menu, or **Real-Time** from the options on the Dataloggers Screen.



Select O to enter the non-logged view sample rate.

This rate can be set independently of the programmed logging period of the connected datalogger, and does not interfere with any logging taking place in the datalogger itself.

On an iOS device, the button re-enables/re-starts the automatic plot scrolling, after you have re-sized the plot by pinching in or out in either the horizontal or vertical directions while taking real-time readings.

Note: On an iPad, tapping will expand the Plot screen to full screen.

Note: You can place the App in the background, while Real-Time readings are being recorded.

Note: Real-Time readings do not interfere with any programmed logging taking place in the datalogger itself.

Note: Downloads and Real-Time readings can occur at the same time.





2:32			4	i 🗈
《 Real Time		►	Ō	
		SN 10	80256	Log
S Real-T	ime Opti	ons		SAVE
Sample Rate	2 S	econds	-	+
Change	0.00	m	_	+
23.595 -	10.13310	N		
)			
0.1 - 23.590 -	10.13305 -			
0.0 -				

Figure 8-3 Edit Real Time Parameters - iOS

Figure 8-4 Edit Real-Time Parameters - Android

You can set the non-logged **Sample Rate** from 1 second to 99 minutes. You can also enable a **Data Adjust** (Change) to offset real-time readings by the entered value.

Note: Tapping on the white input fields will show the scroll wheels to enter the desired settings.

Select the start symbol \square at the top left of the Solinst Levelogger App to start recording real-time readings. Select the stop symbol $\boxed{2}$ to stop recording real-time readings.

Note: It is possible to change the non-logged Sample Rate, while still recording real-time readings; the graph and data list will be updated dynamically.

To view the real-time data in list view, select

Real-time logging sessions are automatically saved to the Saved Logs list, when the datalogger is disconnected from the App.

Note: See Section 9.0 for viewing saved data logs, and Section 10.0 for e-mailing or transferring data logs.



く Plot	Datalogger Data List		
Log	Date/Time	Level	Temperature
1	27/08/20 3:31:43 PM	10.13m	24.29°C
2	27/08/20 3:31:44 PM	10.13m	24.30°C
3	27/08/20 3:31:45 PM	10.13m	24.30°C
4	27/08/20 3:31:46 PM	10.13m	24.30°C
5	27/08/20 3:31:47 PM	10.13m	24.30°C
6	27/08/20 3:31:48 PM	10.13m	24.30°C
7	27/08/20 3:31:49 PM	10.13m	24.30°C
8	27/08/20 3:31:50 PM	10.13m	24.30°C
9	27/08/20 3:31:51 PM	10.13m	24.30°C
10	27/08/20 3:31:52 PM	10.13m	24.30°C
11	27/08/20 3:31:53 PM	10.13m	24.29°C
12	27/08/20 3:31:54 PM	10.13m	24.30°C
13	27/08/20 3:31:55 PM	10.13m	24.30°C
14	27/08/20 3:31:56 PM	10.13m	24.30°C
15	27/08/20 3:31:57 PM	10.13m	24.30°C
16	27/08/20 3:31:58 PM	10.13m	24.30°C
17	27/08/20	10.13m	24.30°C

2:3	32			ŝ II 🛔
< Dat	talogger Data	List		
Log	Date/Time	LEVEL	TEMPERAT	. CONDUCTI
11	Sep. 10, 2020 2:31:24 p.m.	10.1330 m	23.600 °C	0.4 µS/cm
12	Sep. 10, 2020 2:31:26 p.m.	10.1332 m	23.599 °C	0.4 µS/cm
13	Sep. 10, 2020 2:31:28 p.m.	10.1331 m	23.601 °C	0.4 µS/cm
14	Sep. 10, 2020 2:31:30 p.m.	10.1333 m	23.603 °C	0.4 µS/cm
15	Sep. 10, 2020 2:31:32 p.m.	10.1331 m	23.604 °C	0.4 µS/cm
16	Sep. 10, 2020 2:31:34 p.m.	10.1330 m	23.602 °C	0.4 µS/cm
17	Sep. 10, 2020 2:31:36 p.m.	10.1331 m	23.604 °C	0.4 µS/cm
18	Sep. 10, 2020 2:31:38 p.m.	10.1331 m	23.605 °C	0.4 µS/cm
19	Sep. 10, 2020 2:31:40 p.m.	10.1330 m	23.605 °C	0.4 µS/cm
20	Sep. 10, 2020 2:31:42 p.m.	10.1331 m	23.608 °C	0.4 µS/cm
21	Sep. 10, 2020 2:31:44 p.m.	10.1331 m	23.610 °C	0.4 µS/cm
22	Sep. 10, 2020 2:31:46 p.m.	10.1333 m	23.613 °C	0.4 µS/cm
23	Sep. 10, 2020 2:31:48 p.m.	10.1332 m	23.612 °C	0.4 µS/cm
24	Sep. 10, 2020 2:31:50 p.m.	10.1333 m	23.613 °C	0.4 µS/cm
25	Sep. 10, 2020	10.1330 m	23.615 °C	0.4 µS/cm

Figure 8-5 Real-Time Data List - iOS

Figure 8-6 Real-Time Data List -Android

Note: The scroll bar at the right of the screen, when touched and dragged, can be used to reposition the data window anywhere in very large log files.

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EDIT



9.0 Viewing Saved Data Logs

To view data from a connected Solinst datalogger, or previously connected datalogger, select the datalogger image from the Dataloggers Screen. A list of all saved data logs for that datalogger will be shown. Tap the plot icon we beside the data log that you want to view (double tap on a phone).

On an iOS device, tapping the area to the left of the plot icon (showing serial number and number of logs), will bring up the settings the datalogger used during that logging session.

On an Android phone, tapping the settings icon W, will bring up the settings the datalogger used during that logging session.

Note: The red number on the datalogger image indicates the number of saved data logs. This includes downloaded logs and real-time logs.

2:43

Saved Logs

SN 2124608 :

SN 2124608:

SN 2124608 :

SN 2124608 :

SN 2124608 :

62 logs - Sep. 9, 2020 4:17:07 p.m

535 logs - Sep. 9, 2020 4:07:44 p.m

51 logs - Sep. 9, 2020 4:06:26 p.m

9 logs - Sep. 3, 2020 3:05:40 p.m.

682 logs - Sep. 3, 2020 2:25:21 p.m



Figure 9-1 Viewing Saved Logs - iOS

Figure 9-2 Viewing Saved Logs - Android

On an iOS device, you can only delete Saved Logs when that datalogger is disconnected from the App. Delete logs from the list by swiping left.

On an Android device, you can delete Saved Logs from the list by tapping **Edit** at the top right of the list, then selecting the logs you want to delete.



The data log will be shown in a graphical format (**Plot**). If allowed in User Defaults (Section 4.3), tapping the screen in an iOS device, will show you the value of that data point, including the date and time. Tap and hold to show the value on an Android device. You can use gestures to scroll through the data, and zoom in and out.

Note: On an iPad, tapping will expand the Plot screen to full screen.

Note: Viewing the data plot in a horizontal orientation is also an option.



Figure 9-3 Viewing Saved Data Log Plot - iOS

Note: When viewing Solinst Rainlogger data, you can select the time "Interval" at which you would like the data shown, from 1 to 99 seconds, minutes, hours, days, or weeks (this acts like a zoom function).

When viewing data you have the option to e-mail the data log. See Section 10.1 for e-mailing data.

You can select to view the saved data log in a list format.

Note: User Defaults (see Section 4.3) allows adjustment of how the plot symbols are shown and whether the data pop-up appears when a plot point is touched.

Figure 9-4 Viewing Saved Data Log Plot - Android



< Plot	Datalogge	r Data List	
Log	Date/Time	Level	Temperature
1	27/08/20 3:25:56 PM	10.13m	24.30°C
2	27/08/20 3:25:57 PM	10.13m	24.30°C
3	27/08/20 3:25:58 PM	10.13m	24.30°C
4	27/08/20 3:25:59 PM	10.13m	24.30°C
5	27/08/20 3:26:00 PM	10.13m	24.30°C
6	27/08/20 3:26:01 PM	10.13m	24.30°C
7	27/08/20 3:26:02 PM	10.13m	24.30°C
8	27/08/20 3:26:03 PM	10.13m	24.30°C
9	27/08/20 3:26:04 PM	10.13m	24.30°C
10	27/08/20 3:26:05 PM	10.13m	24.30°C
11	27/08/20 3:26:06 PM	10.13m	24.30°C
12	27/08/20 3:26:07 PM	10.13m	24.30°C
13	3:26:08 PM	10.13m	24.29°C
14	3:26:09 PM	10.13m	24.30°C
15	3:26:10 PM	10.13m	24.30°C
16	3:26:11 PM	10.13m	24.29°C
17	27/08/20	10.13m	24.30°C

2:4	14		r 🖓
< Dat	alogger Data List		
	Date/Time	barometric pr	ambient temp
1	Sep. 9, 2020 4:17:07 p.m.	99.2983 kPa	23.516 °C
2	Sep. 9, 2020 4:17:08 p.m.	99.2962 kPa	23.516 °C
3	Sep. 9, 2020 4:17:09 p.m.	99.2977 kPa	23.518 °C
4	Sep. 9, 2020 4:17:10 p.m.	99.2972 kPa	23.518 °C
5	Sep. 9, 2020 4:17:11 p.m.	99.2980 kPa	23.516 °C
6	Sep. 9, 2020 4:17:12 p.m.	99.2966 kPa	23.517 °C
7	Sep. 9, 2020 4:17:13 p.m.	99.2967 kPa	23.519 °C
8	Sep. 9, 2020 4:17:14 p.m.	99.2976 kPa	23.520 °C
9	Sep. 9, 2020 4:17:15 p.m.	99.2966 kPa	23.519 °C
10	Sep. 9, 2020 4:17:16 p.m.	99.2990 kPa	23.522 °C
11	Sep. 9, 2020 4:17:17 p.m.	99.2967 kPa	23.520 °C
12	Sep. 9, 2020 4:17:18 p.m.	99.2957 kPa	23.519 °C
13	Sep. 9, 2020 4:17:19 p.m.	99.2989 kPa	23.520 °C
14	Sep. 9, 2020 4:17:20 p.m.	99.2957 kPa	23.519 °C
15	Sep. 9, 2020 4:17:21 p.m.	99.2945 kPa	23.519 °C

Figure 9-5 Viewing Saved Data Log List - iOS

Figure 9-6 Viewing Saved Data Log List - Android

Note: Touching a data point in the list will highlight the same point in the plot view.



10.0 Sharing Data Logs

10.1 E-mailing and Sharing Data Logs

Open the data log as described in Section 9.0. On an iOS device tap the share icon \square . On an Android device tap the e-mail icon \square .

< ≡	Plot	Û	
SI	2122884	4 Logs	_ [
10,131			
10,1305 56		T _t	
T] Send this	file.		×
AirDrop Me	ssages I	Mail	Notes
Сору			ß
Save to Files	6		
Edit Actions			

Figure 10-1 Data Log Sharing - iOS

On an iOS device you will be provided with multiple options for sharing the *.xle file, including e-mail, AirDrop, or the Files App for bulk cloud transfers.

Note: If other cloud-sharing apps are installed (e.g. Dropbox) they will also appear as file sharing options.



Quick Share	Share instant	ly with people	nearby. On the
	other person	s device, make	sure that Quick
	Share is turne	ed on in the qui	ick panel. <u>Tips</u>
You'll be	e able to share	with people he	re after you
ma	ske contact in c	communication	apps.
Link Sharing			

Figure 10-2 Data Log Sharing - Android

On an Android device you will be provided with multiple options for sharing the *.xle file, including e-mail.

Once shared via your preferred method, the *.xle files can be opened with Solinst Levelogger PC Software. For more information on Levelogger PC Software, please see the Model 3001 Levelogger Series User Guide.



10.2 Transferring Data Logs

The *.xle data files can be opened using Levelogger PC Software, to perform a barometric compensation and other data compensations. For more information on Levelogger PC Software and data compensations, please see the Model 3001 Levelogger Series User Guide.

Note: Data logs can also be e-mailed directly from the Solinst Levelogger App to any e-mail address, or shared using other applications on an iOS device.

10.2.1 Transfer from iOS

To transfer data from the Solinst Levelogger App directly to your PC Computer, follow these steps:

- 1. Plug your smart device into your PC using the cable supplied with your device.
- 2. Open iTunes.
- 3. Select your device, which should be shown next to the eject icon on the top right (in iTunes 12.7 or later, it will be top left).
- 4. Select "Apps" (in iTunes 12.7 or later, select "File Sharing").
- 5. Scroll down to find the list of Apps that allow File Sharing.
- 6. Select the Solinst Levelogger App.
- 7. A list of Solinst Documents should be displayed.
- 8. Select the data file you want to save to your PC, select "Save to...", and choose the location you want to save the file. You can also drag the file to your desktop or other location.

10.2.2 Transfer from Android

Note: Depending on your device, you may have to check your device settings to ensure it is set to allow USB transfer.

Note: If you are asked to select a USB connection, choose Media device (MTP).

To transfer data from the Solinst Levelogger App directly to your PC Computer, follow these steps:

- 1. Make sure your smart device's screen is unlocked.
- 2. Plug your smart device into your PC using the USB cable supplied with your device.
- 3. Your device will appear as a new drive. Open the File Explorer (My Computer), where you can drag and drop files like you would from a USB flash drive or other external device.
- 4. Double-click on your device (twice). Data files are located in your device's internal memory: Files>Download>Solinst.
- 5. When you are finished transferring data, eject your device, then unplug the USB cable.

Note: To transfer data from some Samsung devices, you will first need to download Samsung Kies on your computer. The application can be downloaded here: http://www.samsung.com/ca/support/usefulsoftware/KIES/



11.0 Diagnostics

To view diagnostic information from a connected datalogger, select **Diagnostics** from the Navigation Menu or from the options on the Dataloggers Screen. The Diagnostics Utility can be used to run self-tests, recover a previous data log (Edge Series only), create and email reports, regenerate data files, and reset a vented datalogger.

The following will be displayed once **Diagnostics** is selected:

- 1) Datalogger Serial Number
- 2) Levelogger App Interface Serial Number
- 3) Datalogger Model Number
- 4) Datalogger Firmware Version
- 5) Datalogger Battery Voltage
- 6) Datalogger Battery Charge Level
- 7) Current Level Reading
- 8) Current Temperature Reading
- 9) Current Conductivity Reading (Levelogger LTCs only)
- 10) Max/Min Temperature Reading
- 11) Max Pressure Reading
- 12) Max Conductivity Reading (Leveloggers LTCs only)
- 13) Total Number of Logs

This information can be used to identify firmware, battery and/or temperature/pressure/conductivity sensor problems.

		3:14	ا ار ب
Done Diagnostic Utilit	TV.	Solinst Android App	
		Datalogger Information	
Datalogger Information		Logger Serial Number	1080256
		BT Serial Number	242806
Serial Number:	2122884	Firmware Version	V1 000
BT Serial Number:	242806	Battery Voltage	3 52 V
	2000	Charge Level	1383.52 mAH
Model Number:	M5	Level	10.1327 m
-	1000	Temperature	24.305 °C
irmware version:	1.000	Conductivity	0.4 µS/cm
Battery Voltage:	3.60 V	Max. Temperature	0.000 °C
		Min. Temperature	0.000 °C
Charge Level:	1361.55 mAH	Max. Pressure	0.000 m
aval:	10 1292 m	Max. Conductivity	0.000 µS/cm
_evei.	10.1292111	Min. Temperature Date	
Temperature:	24.287 °C	Max. Temperature Date	
2 2 2 2		Max. Pressure Date	
Max. Recorded Temperature:	25.175 °C	Max. Conductivity Date	0
Max. Temperature Date:	08/08/2020	Data logs recorded	U
VIIX			
In. Recorded Temperature:	24.274 °C	Run Diagnostics	Send Report
Vin. Temperature Date:	08/08/2020	Battery Voltage Test	

Figure 11-1 Diagnostics Utility - iOS

Figure 11-2 Diagnostics Utility - Android



11.1 Run Diagnostics

Selecting **Run Diagnostics** performs a series of self-tests on the datalogger to check for problems with the battery, memory, pressure/temperature/conductivity sensors. If a Levelogger LTC fails the Conductivity Sensor Test, this could mean that you have not calibrated your LTC in a while (~1 year). It is recommended that you perform a conductivity calibration, then 'Run Diagnostics' again. If any of these tests fail then a report should be created and emailed to Solinst Technical Support.

Self-Test Results	
Run Diagnostics Send I	Report
Battery Voltage Test	V
Program Memory Test	V
Calibration Memory Test	V
Logging Memory Test	V
Temperature Sensor Test	V
Pressure Sensor Test	V
Data Retrieval	
LTC Cal. Report Load Pr	ev. Logs
XLE Files	
Regenerate XLE Files	

Figure 11-3 Run Diagnostics - iOS

3.13	esst alli			
Solinst Android App				
Charge Level	1383.52 mAH			
Level	10.1327 m			
Temperature	24.305 °C			
Conductivity	0.4 µS/cm			
Max. Temperature	0.000 °C			
Min. Temperature	0.000 °C			
Max. Pressure	0.000 m			
Max. Conductivity	0.000 µS/cm			
Min. Temperature Date				
Max. Temperature Date				
Max. Pressure Date				
Max. Conductivity Date				
Data logs recorded	0			
Self-Test Results				
Run Diagnostics	Send Report			
Battery Voltage Test	V			
Program Memory Test	~			
Calibration Memory Test	~			
Logging Memory Test	~			
Temperature Sensor Test	~			
Pressure Sensor Test	~			
Data Retrieval				

Figure 11-4 Run Diagnostics - Android



11.2 Send Report

Selecting **Send Report** creates a text file containing the information obtained from the **Run Diagnostics** function. When you tap Send Report, a screen will pop up asking you to fill out your company information. Fill this out, select "Continue" or "OK" and the resulting report can be saved or sent to Solinst Technical Support for troubleshooting. If creating a report for an Levelogger LTC, the LTC Calibration History Report will be included.

	3:15 🔊 🗐 🗎
Done Diagnostic Utility	Solinst Android App
Self-Test Results Run Diagnostics Send Report Please enter the following for the r Name: Company: Phone No.: FAX No.: Optional Email: Continue Regenerate XLE Files	Name Company: Phone No.: FAX No.: E-mail : Cancel OK
Regenerate XLE Files	

Figure 11-5 Send Report - iOS

Figure 11-6 Send Report - Android



11.3 Load Previous Logs

For Levelogger Edge Series dataloggers, selecting **Load Prev. Logs** attempts to recover data from the previous logging session. If successful, you can view the log by selecting "View log" or by going to the Dataloggers screen after selecting "Ok". There will be a warning stating that "previous logs may be corrupt and/or contain invalid data." In the Dataloggers screen, the previous data log will be identified by a caution symbol.

No SIM 🗢 1	2:50 PM	* 💼	
Done Diagne	ostic Utility		
Datalogger Informa	ation		
Charge Level:	1404.8	8 mAH	
Level:		9.91 m	
Conductivity:	23,	843 µS	
Max. Temperatur	e: 35.	002 °C	
Mir -		^18 °C	
Mi Down	0 μS		
Da Use the "Go to I the logger view may be corru	Drevious log download is complete. Use the "Go to log" button to return to the logger view. Note: Previous logs may be corrupted and/or contain invalid data.		
Ba View log	Ok	?	
Program Memory	/ Test	?	
Calibration Memo	ory Test	?	
Logging Memory	Test	?	
Temperature Sen	sor Test	?	
Pressure Sensor	Test	?	
Data Retrieval			
LTC Cal. Report	Load Prev. L	ogs	

Figure 11-7 Loading Previous Log - iOS

>	🖹 🔋 📶 💼 3:19 PM
Solinst App	
BT Serial Number	273296
Model Number	M20
Firmware Version	V3.004
Battery Voltage	3.55 V
Charge Level	1394.66 mAH
Level	24.3500 m
Temperature	9.969 °C
Max. Temperature	39.671 °C
N Please Wait	
0%	0/100
Battery Voltage Test	
Program Memory Test	×
Calibration Memory Tes	t 🗸
Logging Memory Test	V
Temperature Sensor Tes	st 🗸
Pressure Sensor Test	V
Data Retrieval	

Figure 11-9 Loading Previous Log - Android



Figure 11-8 Previous Data Log - iOS



Figure 11-10 Previous Data Log - Android



11.4 LTC Calibration History Report

This function creates a report of all previous user calibrations performed on the Levelogger LTC. Use it to send a history report to Solinst for analysis if the Levelogger LTC readings are irregular and/or the unit does not maintain its calibration. To execute this function select **LTC Cal. Report**. This creates a text file that can be sent to Solinst Technical Support.

No SIM 🗢	11:09 AM	* 🗩
Done	Diagnostic Uti	lity
Datalogge	er Information	
Conduc	ctivity:	0.0 µS/cm
Max. Te	emperature:	73.488 °C
Min. Te	mperature:	12.554 °C
Max. Pr	ressure:	165.5060 psi
Max. Co	onductivity:	86516.8 μS
Data lo	gs recorded:	11553
Self-Test	Results	
Run Dia	agnostics S	end Report
Battery	Voltage Test	1
Program	m Memory Test	1
Calibration Memory Test		
Logging Memory Test		
Temper	ature Sensor Test	1
Pressur	re Sensor Test	1
Conduc	ctivity User Calibrat	ion Test 🛛 🖌
		Drov Logs
LIC Ca	al. Report	ad Prev. Logs

Charge Level	1383.52 mAH
Level	10.1327 m
Temperature	24.305 °C
Conductivity	0.4 µS/cm
Max. Temperature	0.000 °C
Min. Temperature	0.000 °C
Max. Pressure	0.000 m
Max. Conductivity	0.000 µS/cm
Min. Temperature Date	
Max. Temperature Date	
Max. Pressure Date	
Max. Conductivity Date	
Data logs recorded	0
Self-Test Results	
Run Diagnostics	Send Report
Battery Voltage Test	~
Program Memory Test	~
Calibration Memory Test	~
Logging Memory Test	~
Temperature Sensor Test	~
Pressure Sensor Test	~
Data Retrieval	
LTC Cal. Report	Load Prev. Logs

Figure 11-12 LTC Calibration Report - Android

Figure 11-11 LTC Calibration Report - iOS



11.5 Regenerate Data Files

In the iOS App, selecting **Regenerate XLE Files** creates an .xle file for each of the data logs currently listed/ saved in the App. The copies of the .xle are saved to your smart device in the Files > Solinst folder. From the folder, you can email the data files or transfer the data to your computer.

	D	one	Diagnostic	Utility		
	s	elf-Test	Results			
	1	Run Diag	gnostics	Send Report		
		Battery Vo	ltage Test	v		
		Program N	lemory Test	v		
		Calibration	n Memory Test	t V	1	
		Logging N	lemory Test	v	C	
		Temperatu	ure Sensor Tes	st 🗸	·	
		Pressure S	Sensor Test	v	/	
	D	ata Retr	ieval			
			Report	Load Prev. Logs		
	x	'l E Eilos				
	Î		Pagaparata V			
		-	Regenerate A	LL THES		
No SIM 🗢	3:38 PM		95% 🛑	No SIM 🗢	3:38 PM	95% 🔳
<pre>< Locations</pre>	On My iPhone		Select	Con My iPhone	Solinst	Select
Q Search				Q Search		
S						
Solinst				2122884 Solin	2122884 Solin	2122884 Solin
29 items				st_2027.xle 3:30 PM	st_207_1.xle 3:33 PM	st_207_2.xle 3:37 PM
				32 KB	32 KB	32 KB
				2122884_Solin st_207_3.xle	2122913_Solin st_2018.xle	2122913_Solin st_208_1.xle
				3:37 PM 32 KB	24/08/2020 685 KB	24/08/2020 3 KB
1 iten	n, 17,7 GB avai	lable		2122012 Colin	2122012 Colin	2122012 Calin
Recents		Browse		Recents		Browse

Figure 11-13 Regenerate XLE Files Location – iOS



11.6 Clear Datalogger Zero

To clear a previously performed "Barometric Zero" on a vented datalogger (See Section 6.7), click **Clear Zero Offset**.

Done Diagnostic Utility				
Battery Voltage Test	~			
Program Memory Test	~			
Calibration Memory Test	~			
Logging Memory Test	~			
Temperature Sensor Test	V			
Pressure Sensor Test	~			
Data Retrieval				
LTC Cal. Report Load Pre	v. Logs			
XLE Files				
Regenerate XLE Files				
Datalogger Zero				
Clear Zero Offset				

Figure 11-14 Clear Zero Offset – iOS

4:00		1 in 1		
Solinst And	roid App			
Min. Temperatu	ıre	19.955 °C		
Max. Pressure		21.850 m		
Min. Temperatu	ure Date	Sep. 06, 2020 07:30:35		
Max. Temperat	ure Date	Sep. 15, 2020 13:06:00		
Max. Pressure	Date	Sep. 15, 2020 13:06:00		
Data logs recor	ded	676301		
Self-Test Results				
Run Diagnost	ics	Send Report		
Battery Voltage	Test	~		
Program Memo	ory Test	~		
Calibration Mer	nory Test	~		
Logging Memo	ry Test	~		
Battery Charge	Status Te	st 🖌		
Temperature Se	ensor Test	t V		
Pressure Sense	or Test	~		
Data Retrieval				
Zero Offset				
Clear Zero Offset				
111	0	<		

Figure 11-15 Clear Zero Offset – Android



12.0 Conductivity Calibration

To calibrate a connected Levelogger 5 LTC or LTC Levelogger Edge conductivity sensor, select Conductivity **Calibration** from the Navigation Menu or **Conductivity Cal.** from the options on the Dataloggers Screen.

The Levelogger LTC must not be running while the calibration is being performed. See Section 6.8 for information on stopping dataloggers.

Note: See the Levelogger User Guide for more information on conductivity calibration requirements and guidance.



Android

A Levelogger LTC can be set back to original factory calibration settings for conductivity at any time, by selecting Factory Settings in the first Calibration screen. If you suspect that user calibrations are not working properly, you can restore the Levelogger LTC to its original factory settings and then perform a "first-time" conductivity user calibration to maximize accuracy.

To initiate a calibration, select "Continue" after you have read through the requirements on the screen.







Solutions - Android

Select the **Temperature Coefficient** for the conductivity solution(s) you will be using. The default setting is 2.000. If the conductivity solution you are using to calibrate the Levelogger LTC states a different temperature coefficient on the label, please input that number.

Select the **calibration solutions** you will use for the calibration. Choose up to four solutions for a multipoint calibration of the Levelogger LTC. Ensure the solutions are ready in the calibration beaker or container. Select "Start" to begin the calibration.

Note: If you know the approximate conductivity range of the water that you will be measuring, best accuracy when calibrating your unit is to select two calibration points – one above, and one below that range. If you are measuring in water less than 1,413 μ S/cm or above 12,880 μ S/cm or 80,000 μ S/cm, use just one calibration solution.



	3:19	الد 3
Calibration	Solinst Android App	CANCEL
Please set up the 1413 µS/cm solution. • Clean the probe with DI water • Rinse your LTC with fresh solution • Immerse the LTC in the fresh solution Allow the solution to thermally equilibrate and ensure that no air bubbles are present during the calibration process (this may take 2-3 minutes).	Please set up the 1413 µ • Clean the probe with DI wa • Rinse your LTC with fresh s • Immerse the LTC in the free Allow the solution to therma and ensure that no air bubbl during the calibration proces 2-3 minutes).	S Solution ter solution sh solution ally equilibrate les are present ss (this may take
Continue Cancel	Continue	
	III O	<
Figure 12-5 Calibration Setup - iOS	Figure 12-6 Calibration Se	etup - Android

Use DI water to rinse the Levelogger LTC first and then rinse the Levelogger LTC with the displayed calibration solution. Use fresh solution for calibration, and immerse the Levelogger LTC. Lightly tap the Levelogger to remove any bubbles from the sensor. Allow 2-3 minutes to stabilize, then select "Continue" to calibrate.

Since most standard calibration solutions state conductivity at a standard temperature of 25°C, the Levelogger LTC an account for temperature differences between 10 to 30°C when you calibrate the unit. The Levelogger LTC will compare the current temperature and conductivity readings against the temperature corrected standard solution.

When a single-point calibration is successful, the process is complete. Once the calibration is complete for the first solution of a multipoint calibration, a message will appear stating that the calibration was successful. When you select 'Ok', you will be prompted to start the rinsing process for the next solution selected. The calibration process will proceed automatically until completed for all solutions.

If a failure occurs at any point during calibration, a message will appear asking you to clean and check your probe, check your solutions, then start the calibration process over for that current solution by selecting 'Ok'. If performing a multipoint calibration, any previous successful calibration points will remain.





Figure 12-7 Conductivity Calibration Results - iOS



Figure 12-8 Conductivity Calibration Results - Android





Figure 12-9 Conductivity Calibration Retry - iOS



Figure 12-10 Conductivity Calibration Retry - Android





Select "Calibrate Again" or "Retry" to retry the calibration a second time. If a second failure occurs during calibration, a warning message will appear indicating that your probe may still be dirty, or damaged. This may occur if your Levelogger LTC conductivity sensor has been affected by dirt, mineral build-up, etc., so it no longer responds like it did when it was first factory calibrated. This step allows your sensor to be calibrated within a wider range of the standard solution value.

If you select 'Ok' to accept the larger tolerance, the calibration process will start over for that current solution. If performing a multipoint calibration, any previous successful calibration points will still remain. If you select 'Cancel', the Levelogger LTC will default back to the last pre-calibrated state. You can retry the calibration using the normal tolerance range. Select "Calibrate Again" or "Retry" to retry the calibration a third time.

Calibration	Cancel
Calibration Progress:	
per cent!	1378 uS/cm
Conductivity Reading:	1281 µS/cm
Solution Temperature:	23.744 °C
Calibrate Aga	ain

Figure 12-11 Conductivity Calibration Third Try - iOS

Click Retry to retry the calibration with the selected solution		
Solution Temperature: Conductivity Reading: Solution Conductivity:	23.467 °C 0.4 μS/cm 12485.1 uS/cm	
Retry	4	

Figure 12-12 Conductivity Calibration Third Try -Android





Figure 12-13 Calibration Failure - iOS

If a third calibration error occurs, or the results of the calibration are outside the error tolerance range, a warning message will appear stating the calibration failed. It is recommended to contact Solinst for further options. Click "Ok" or "Complete" to exit the Calibration screen.

Figure 12-14 Calibration Failure - Android

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High Quality Groundwater and Surface Water Monitoring Instrumentation

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