

Leveloader Gold

User Guide

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In order to use the Leveloader Gold with older model

Leveloggers (Mini LT (silver), and LTC (black ceramic), users will be required to downgrade the on-board firmware in the Leveloader Gold to Firmware Version 1.000 and use Levelogger Software Version 3.1.1.

1 Getting Started

This manual explains the capabilities of your Leveloader Gold with the Solinst Levelogger[®] product line. To begin using your Leveloader Gold we strongly recommend that you install Levelogger Software Version 3.4.0 (or later). Please visit www.solinst.com/Downloads/ to download the current version or check for updates.

2 Leveloader Gold

The Leveloader Gold is a supplementary accessory within the Levelogger Gold series. It has the ability to view, change or add Levelogger logging settings, launch log sessions, download data, view existing or real time data and store multiple data files. The Leveloader Gold supports the Levelogger Gold, Levelogger Junior, LTC Levelogger Junior, Barologger Gold, Model 3002 Rainlogger and previous Levelogger models including: the Mini LT (silver), the LTC (black ceramic). The Leveloader Gold is designed to communicate with a PC via Levelogger Software.

3 System Requirements

The minimal hardware and software requirements for software installation and operation are:

Hardware	Software
Memory: 256MB or more	OS: Windows 98, 2000, XP, Vista, or 7
Display: VGA: 800 x 600 pixels, 256 colour	
Ports: USB or RS232 Serial Port	
Hard Drive space: 64MB	

Communication Port Setting for Levelogger Communications:

Bits per second	9600
Data bits	8
Stop bits	1
Flow control	None







4 Installing USB Drivers

Levelogger Software Version 3.4.0 (or later) comes equipped with USB drivers.

4.1 USB Installation for Windows 2000

- 1) Plug the USB cable into the Leveloader, then into the PC.
- 2) Your PC will automatically detect the connected unit.

Found Nev	w Hardware
	Leveloader Gold
Installing	

Figure 4-1 Found New Hardware Pop-up Window

- 3) This will start the 'Found New Hardware Wizard', click next.
- 4) In the 'Install Hardware Device Drivers' window, select 'search for a suitable driver for my device (recommended)'.
- 5) In the 'Locate Driver File' window, select 'Specify a location'.

Whe	Driver Files re do you want Windows to search for driver files?
Sear	ch for driver files for the following hardware device:
- <mark>P</mark>) Leveloader Gold
The any (wizard searches for suitable drivers in its driver database on your computer and in of the following optional search locations that you specify.
Tos inser	art the search, click Next. If you are searching on a floppy disk or CD-ROM drive, t the floppy disk or CD before clicking Next.
Opti	onal search locations:
Г	Floppy disk drives
Г	CD-ROM drives
	Specify a location
, IA	

Figure 4-2 Found New Hardware Wizard/Locate Driver Files

6) In the next window point the browser to the USB driver folder located in the Levelogger 3_4 folder

Default Destination 'C:\Program Files\Solinst\Levelogger3_4\ USB Drivers\Win_2000_XP_Vista_7

7) Once the installation completes, a system restart may be required.



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4.2 USB Installation for Windows XP (Service Pack 2 or less)

1) Plug the USB device into the computer, and Windows will automatically detect the connected device. Click 'Install' from a list or specific location', then click the 'Next' Button. Start the Hardware Installation Wizard (Figure 4-3).



Figure 4-3 Found New Hardware Wizard Window

2) Select the installation option, 'Include this location in the search' (Figure 4-4), then click the 'Browse' Button to search for the appropriate directory:

C:\Program Files\Solinst\Levelogger3_4\USB Drivers\ Win_2000_XP_Vista_7



Figure 4-4 Found New Hardware Window and Figure 4-5 Browse for Folder Window







Figure 4-6 Found New Hardware Search Window

3) A warning message will then prompt that the software has not passed the Windows Logo Test. Select 'Continue Anyway' (Figure 4-7). This will complete the installation process. A system restart may be required.

Hardwa	re Installation
1	The software you are installing for this hardware: Leveloader Gold USB Serial Port has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.) Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
	Continue Anyway STOP Installation

Figure 4-7 Hardware Installation Window



Figure 4-8 Found New Hardware Completed Window



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4.3 USB Installation for Windows Vista

- 1) Plug the USB Optical Reader or PC Interface cable into the desired PC. The system will automatically detect the connected unit and start the 'Found New Hardware' Wizard.
- 2) From the provided list select "Locate and install driver software (recommended)".



Figure 4-9 Found New Hardware Window

3) On the next screen select, "I don't have the disc. Show me other options."



Figure 4-10 Found New Hardware - USB Serial Port Window



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4) On the next screen select, "Browse my computer for driver software (advanced)" option.

vviria	Sws couldn't find driver software for your device
→ (∨ ∨ ∨	Check for a solution Vindows will check to see if there are steps you can take to get your device Jorking.
⇒ E L	Browse my computer for driver software (advanced) ocate and install driver software manually.

Figure 4-11 Found New Hardware Browse Window

5) Select the Browse button and point the navigation window to the provided USB drivers located within the Levelogger 3_4 folder. The default destination is:

C:\Program Files\Solinst\Levelogger 3_4\USB Drivers\ Win_2000_XP_Vista_7

The selected pathway will be provided within the window, select Next on the wizard to complete the installation.

se for driver soft	ware on your com	nputer		
for driver software in t	his location:			
ogramFiles\Solinst\Lev	velogger3_4\USBDrive	ers\Win_2000_XP -	Browse	
ude subfolders				
	for driver software in t ogramFiles\Solinst\Lev ude subfolders	for driver software in this location: ogramFiles\SolinstLevelogger3_4\USBDrive ude subfolders	for driver software in this location: ogramFiles\SolinstLevelogger3_4\USBDrivers\Win_2000_XF -	for driver software in this location: pgramFiles\SolinstLevelogger3_4\USBDrivers\Win_2000_XF

Figure 4-12 Search for Driver Software Window

6) Once the installation completes, a system restart may be required. If the found new hardware wizard prompts again, please repeat steps 1-6.







4.4 USB Installation for Windows 7

- 1) Plug the Leveloader into the desired PC. Windows will automatically detect the device, but will not install the driver.
- 2) Press the Windows start button to bring up the start menu, select "Control Panel", then "Device Manager".
- 3) Under "Other Devices" there will be a device shown with a yellow warning symbol. Right click on this device, and select "Update Driver Software".

	SI IP AV AN	
IDE ATA/ATAPI control Keyboards Mice and other pointin Monitors Network adapters Other devices	ig devices	
Communication Communication Communication Communication Processors Sound, video and g Migh Definition	Update Driver Software Disable Uninstall Scan for hardware changes Properties	
Juniversal Serial Bus co Universal Serial Bus co Intel(R) 82801FB/FI Intel(R) 82801FB/FI Intel(R) 82801FB/FI Intel(R) 82801FB/FI Intel(R) 82801FB/FI USE Composite De USE Composite De	Introllers IM USB Universal Host Controller - 2658 IM USB Universal Host Controller - 2659 IM USB Universal Host Controller - 2658 IM USB Ushiversal Host Controller - 2659 IM USB Enhanced Host Controller - 2650 vice	
USB Root Hub USB Root Hub USB Root Hub USB Root Hub		

Figure 4-13 Update Driver Software

4) Select "Browse my computer for driver software".



Figure 4-14 Search for Driver Software

- 5) Click the Browse button and point the navigation window to the provided USB drivers located within the Levelogger 3_4 folder (See Figure 4-15). Default destination is:
- C:\Program Files\Solinst\Levelogger3_4\USB Drivers\Win_2000_XP_Vista_7



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Figure 4-15 Browse for Driver Software

- 6) Select Next. A window may appear stating "Windows can't verify the publisher of this driver software", select "Install this driver software anyway".
- 7) Windows will confirm when the installation is complete. Press Close to close the window, then go back to the "Device Manager".

🕞 🗊 Update Driver Software - Leveloader Gold	×
Windows has successfully updated your driver software	
Windows has finished installing the driver software for this device:	
Leveloader Gold	
	Close

Figure 4-16 Driver Software Installation Complete

8) You will repeat steps 3-7 to update the USB Serial Port. This will now be shown under "Other Devices" with a yellow warning symbol.

🖆 Device Manager	- • ×
File Action View Help	
👂 🛁 Floppy disk drives	A
▷ + Here Floppy drive controllers	
General DE ATA/ATAPI controllers	
⊳ Keyboards	
B Mice and other pointing devices	
> 💵 Monitors	
Network adapters	
a 👍 Other devices	
🐚 USB Serial Port	
> 1 Ports (COM & LPT)	
Processors	
Sound, video and game controllers	
> des System devices	
a . 👹 Universal Serial Bus controllers	
Intel(R) 82801EB USB Universal Host Controller - 24D2	=
Figure 4-17 Update USB Serial Port	

9) Once this installation is complete, a window will confirm the COM port assigned to the device.



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5 Software Installation

- Place the Levelogger CD in the CD ROM drive or download the software from www.solinst.com/Downloads/ and save to the hard drive.
- Open Windows Explorer and double click the setup.exe icon.
- At this point, Windows will prompt you through the remainder of the installation process. Figure 5-1 shows the Levelogger InstallShield Wizard.
- Restart the computer after installation is completed. Default Directory is C:\Program Files\Solinst\Levelogger3_4

🔂 Levelogger - InstallShie	ld Wizard 🔀
N	Welcome to the InstallShield Wizard for Levelogger
	The InstallShield(R) Wizard will install Levelogger on your computer. To continue, click Next.
	WARNING: This program is protected by copyright law and international treaties.
	< Back Next > Cancel

Figure 5-1 Levelogger - InstallShield Wizard



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Do not open the Leveloader case. Opening the unit will void the manufacturer's warranty.

6 Hardware

Figure 6-1 illustrates the Leveloader Gold and the key functions of each component





RS232 Communications Cable



Note:

Leveloader Gold uses a 9V battery. If the battery gauge on the Leveloader is low, replace the battery

with either an alkaline or lithium. Access the battery by unscrewing the battery hatch.







Connector



7 Leveloader Gold Menu

22:05
Menu

Figure 7-1 Main Menu

Figure 7-1 illustrates the main menu of the Leveloader Gold. The Battery Gauge depicts the remaining life of the Leveloader Gold's 9V battery. Battery levels can be displayed: full, high, medium, low and empty. When the battery icon is empty, replace the battery immediately.

7.1 Connect to Levelogger

Connect a Levelogger to the Leveloader Gold with the supplied Optical and Direct Read Connector Cables. A connection can be made directly to a Levelogger using the Optical Connector, or a Direct Read Cable assembly. Please note that only 1 Levelogger should be connected to a Leveloader Gold at a time.

When 'Connect to Logger' is selected, the Leveloader Gold will begin to communicate to the connected data logger. When communication is successful the Levelogger Menu will appear. There are six options under the Levelogger menu: 'Real Time - View Only', 'Data from Levelogger', 'Info from Levelogger', 'Edit Levelogger', 'Load Settings File' and 'Restart Levelogger'. Each of these menu options are described in Section 8.

	111 22:20
Levelogger Menu	Levelogger Menu
Real Time - View Only	Last Readings
Data from Levelogger Info from Levelogger Edit Levelogger Load Settings File Restart Levelogger	Data from Levelogger Info from Levelogger Edit Levelogger Load Settings File Restart Levelogger
OK Return	OK Return

Levelogger Menu with Levelogger Gold Connected

Levelogger Menu with Mini LT Connected

Figure 7-2 Levelogger Menu





Note:

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available within the Levelogger menu are based on the type of datalogger connected.



7.2 View Stored Data

'View Stored Data' displays a list of stored log files together with the serial number for each Levelogger file (Figure 7-3). To select a specific log file use the Up/Down Buttons to highlight the desired log file and select 'OK'. The next screen (Figure 7-4) will show the number of readings within the log file and the complete data set. Use Up/Down Buttons to scroll.

				22:10
View Stored Data				a
Log	ID	1,	1019733	
Log	ID	2,	1019755	
Log	ID	3,	1018566	
Log	ID	4,	1014857	
Log	ID	5,	1016321	U
OK		N	lenu	

ſ	↑↓ 111 22:12	
	View Stored Data	
	3/200 Readings	
	Time, cm, Deg C	ł
	16:32:25 60.2, 24.78	l
	16:32:27 58.8, 24.75	l
	16:32:29 59.3, 24.77	
ľ	OK Return	



Figure 7-4 Next Screen, View Stored Data Menu

7.3 Data to PC

'Data to PC' lists the number of log files stored in the Leveloader Gold (Figure 7-5). To transfer data from the Leveloader Gold, turn the Leveloader ON, connect the USB cable from the Leveloader Gold to the PC and open the Levelogger Version 3.4.0 (or later) Software. Within the software, select the 'Data Control' tab and then click the Leveloader tab (Figure 9-1). Inside the Leveloader window, click the download icon to start data transfer from the Leveloader Gold to the PC. To return to the previous menu, press the right Chevron Button (see Section 9 for more details).



Figure 7-5 Data to PC Menu



Note: The Leveloader will not turn on when connected

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to the PC with a USB Cable. You must turn the Leveloader on before connecting, or unplug from the PC then turn on and reconnect it.

Leveloader

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automatically by

further detail.

synchronizing with a PC using Levelogger Software. Refer to Section 9.3 for

The Leveloader

Time can also

be updated

7.4 Leveloader Setup

The Leveloader Setup menu (Figure 7-6) contains five functions: Time Setup, Restored Factory Settings, Contrast Control, Leveloader Information and Erase Most Recent Log.

22:17	
Leveloader Setup	
Time Setup Restore Factory Settings Contrast Control Leveloader Information Erase Most Recent Log	
OK Menu	

Figure 7-6 Leveloader Setup Menu

7.4.1 Time Setup

The Time Setup menu is used to adjust the date and time settings of the Leveloader Gold (Figure 7-7). The date/time format is YY/MM/DD HH:MM:SS. Using the Up/Down buttons, scroll and change the date/time, then select {SUBMIT} to confirm the changes. To discard the changes, click 'Menu' which also returns to the previous menu.

	177	22:31
Edit Future	Start T	ime
 05/02/07 16:45:08 {YY/MM/DD HH:MM:SS} 0123456789 {Next hour} {PREV} {NXT} {SUBMIT} 		
OK	Ca	ancel

Figure 7-7 Time Setup Menu

7.4.2 Restore Factory Settings

This menu is used to restore the default settings of the Leveloader Gold to the original factory settings. e.g. Contrast Control.

7.4.3 Contrast Control

Contrast Control is used to adjust the brightness of the LCD. The user can also adjust the contrast for the LCD in the main menu by holding down the top right Chevron Button and selecting either the Up or Down Button.

7.4.4 Leveloader Information

Leveloader Information shows the firmware version number, memory capacity, percent available and Solinst website address.

7.4.5 Erase Most Recent Log

Erase Most Recent Log function will delete the latest log file stored in the Leveloader Gold, to free up memory. When selected, a warning message will prompt the user to confirm the removal of the log file. To erase all files stored in the Leveloader Gold use the Levelogger PC Software. (See Section 9.2.)











the Levelogger Menu are based on the type of data logger connected.



Note: If a Mini LT

Levelogger are connected, the 'Real Time View Only' function will be replaced by 'Last Readings'. This function will allow the user to only view the last data points recorded by the attached Levelogger

		22:20	
	Last Rea	dings #65269	
	Free Mem LEVEL TEMPERA	24000Readings 64.7cm 23.90Deg C	
F	Real Time ON	Menu	-

Last Readings Menu (Silver LT)

	1/4	22:22
Last	Reading	S
Second (s)	01	
{SUBMIT}		
OK		Menu





8 Levelogger Gold Menu

When 'Connect to Logger' is selected, the Leveloader Gold will begin to communicate with the connected data logger. When communication is successful the Levelogger Menu will appear (Figure 8-1). There are six options available: 'Real Time - View Only', 'Data from Levelogger', 'Info from Levelogger', 'Edit Levelogger', 'Load Default Settings' and 'Restart Levelogger'.



Figure 8-1 Levelogger Menu

Figure 8-2 Real Time - View Only

8.1 Real Time - View Only

When 'Real Time - View Only' is selected from the Levelogger Gold Menu, the Levelogger will take a reading immediately and display it in the LCD screen (Figure 8-2). The display will show the data logger serial number, available memory and the readings from the data logger's available channels (level, temperature and/or conductivity).

To update the Levelogger readings periodically, select 'Real Time On' using the left Chevron Button. When enabled, input a sampling rate (Figure 8-3). Select the time increments: seconds, minutes or hours and then the rate: 1-99.

	114	22:22
Real Tim	e - View	Only
Second (s)	01	
{SUBMIT}		
	r	Menu
UN	1	vienu

Figure 8-3 Real Time - Edit Menu

8.2 Data from Levelogger

'Data from Levelogger' downloads the stored data from the attached Levelogger. The screen (Figure 8-4) allows scrolling with the Up/Down buttons through the stored data, indicates battery level, time, data logger serial number and number of readings. To save the data to the Leveloader Gold, push the left Chevron Button. After the data has been saved in the Leveloader Gold memory, the Leveloader Gold will return to the main menu.

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22:23
#1019694 Bat 100%
3/200 Readings
Time, cm, Deg C
16:32:25 60.2, 24.78
16:32:27 58.8, 24.75
16:32:29 69.3, 24.77
Save Log Menu

Figure 8-4 Data from Levelogger Menu

8.3 Info from Levelogger

When 'Info from Levelogger' is selected, a list of the information from the attached Levelogger will be shown on the screen. The list contains the firmware version, battery level, number of readings, data logger date, time and data logger status.

8.4 Edit Levelogger

The 'Edit Levelogger Menu' displays the attached data logger's settings. The Leveloader Gold can adjust many of the Levelogger's settings, including: Date/ Time, Instrument No, Location, Sampling Rate, Sampling Type, Altitude. To adjust any setting, highlight it and click the Edit button.

8.4.1 Edit Date/Time

This menu item is used to synchronize the date and time of the Levelogger with the Leveloader Gold. To synchronize the time, highlight the Date/Time and click 'Edit' in the Edit Levelogger menu.

8.4.2 Edit Instrument Number and Location

Figure 8-5 shows the 'Edit Instrument Number' screen. The current instrument number is shown on top of the menu as 'TESTING'. To change the Instrument Number, highlight the character to modify by selecting {PREV} or {NXT}. Select a character from the list below and click 'Edit' to modify the highlighted character.

^			
		1774	22:24
	Edit Instru	ment N	o.:
	ESTING		
	ABCDEFGHIJKI UVWXYZ01234 {PREV} {NXT} {\$	_MNOP(56789+-: SUBMIT}	QRS
	OK	Ca	ancel

Figure 8-5 Edit Instrument Number Menu

Shading over the character indicates the current character. Press {SUBMIT} when complete. The Leveloader Gold will send the new setting to the Levelogger. To discard the changes, click the 'Cancel' button before submitting. This will return you to the Edit Levelogger menu and discard the changes. This type of operation is also used to modify the Location.





Note:

Remember that the Levelogger must be stopped

in order to change the settings, and remember to save the log before restarting.



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8.4.3 Edit Sampling Rate and Sampling Type

The 'Edit Sampling Rate' screen displays the current sampling rate stored in the Levelogger (Figure 8-6). The following procedure is used to modify the sampling rate:

- 1. Select unit (Seconds, Minutes and Hours) using UP/DN and click Edit.
- 2. Select duration (1 - 99) using UP/DN and click OK.
- When {SUBMIT} is highlighted, click OK to confirm all the changes 3. and the new setting will be sent to the Levelogger.

To cancel the operation, click 'Cancel' to return to the Edit Levelogger menu.

These changes can be confirmed by viewing the 'Edit Levelogger Menu'. The 'Edit Sampling Type' screen displays the current sampling type stored in the Levelogger (Figure 8-7). Use the up/down buttons to scroll through the sampling types: Linear, Schedule or Event Based. To accept the selection press {Submit}.

	1774	22:26
Edit San	npling Ra	ate:
Second(s)	05	
{SUBMIT}		
OK	С	ancel

Figure 8-6 Edit Sampling Rate Menu

	1774	22:25
Edit Sampli	ng Ty	pe:
Linear		
OK	Ca	ancel

Figure 8-7 Edit Sampling Type Menu



Note:

In 'Event Based' sampling, the user must define what the percentage pressure change must be for data

logging to occur, as well as define the sampling rate to determine how often the data logger checks pressure changes.









Maximum altitude value for the Levelogger Gold is 5000 m (16400 ft).

The maximum altitude value for the Mini LT Leveloggers is 3000 m (9750 ft).

8.4.4 Edit Altitude

'Edit Altitude' (Figure 8-8) is very similar in setup to the Edit Instrument Number operation. The Leveloader Gold only allows the numerical value of the altitude to be modified, not the units. Enter the altitude and select {SUBMIT} to confirm the modification. The units of altitude can only be adjusted using Levelogger Software on a PC.

$\left(\right)$		111	22:27		
	Edit Altitude:				
	0				
	0123456789 {PREV} {NXT} {	SUBMIT}	,		
	ОК	Ca	ancel		

Figure 8-8 Edit Altitude Menu

8.5 Load Levelogger Settings Files

To use this feature, the 'Levelogger Settings Files' must be pre-programmed using Levelogger 3.4.0 (or later) Software. Details provided in section 9.1.

Once selected, a list of up to 10 customizable settings are shown (Figure 8-9). By using the Up/Down buttons, the user can select one of the settings and send it directly to the attached Levelogger. A confirmation message will follow. Then scroll down to restart the Levelogger

			22:28
Load Settings Files			
File	1	PumpTest	
File	2	SlugTest	
File	3	StepTest	
File	4	Monitor1	
File	5	Monitor2	
C	θK	N	lenu

Figure 8-9 Load Settings Files Menu









Remember the Levelogger must be stopped to be restarted. To stop the Levelogger, press BOTH the UP and DOWN Buttons simultaneously.



Note: Remember to

save the log file before restarting the Levelogger.

8.6 Restart Levelogger

By selecting 'Restart Levelogger' the user can start data logging immediately or with a defined future start time (Figure 8-10). If a future start time is selected the user must enter the desired start time (Figure 8-11). Please note that if the Levelogger is already running, then it must be first stopped (Figure 8-12). Remember to save the data file before restarting the Levelogger.



	[774]	22:31
Edit Fut	ure Start T	ime
05/02/07 1 {YY/MM/DE 012345678 {PREV} {NX	6:45:08) HH:MM:5 9 {Next hou XT} {SUBM	SS} ur} IT}
OK	C	ancel

Figure 8-10 Levelogger Restart Options





Figure 8-12 Stopping Levelogger

8.7 Security

If the Leveloader has been configured with a password (see section 9.4 for details), then an Enter Password screen will appear if the user attempts to edit the attached Levelogger (Figure 8-13). If password protection is activated, use the UP/DN buttons to choose letter/function. Press OK to enter each letter in the password. Use {PREV} and {NXT} to move the cursor in the password and {SUBMIT} when the password is complete. Click the Menu button to exit the Enter Password screen. Note that the Levelogger must be stopped to edit settings.



Figure 8-13 Enter Password Menu



Note:

Remember that the Levelogger must be stopped to edit settings.



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Remember that the Leveloader Gold must be in the 'Data to PC' mode when connecting to the software.



Note: Please note that depending on the

computer make, the USB connection must sometimes be made before starting the Levelogger Software.



Note:

Remember, the Leveloader will not turn on when

connected to the PC with a USB Cable. You must turn the Leveloader on before connecting, or unplug from the PC then turn on and reconnect it.

9 Levelogger Software and Leveloader Gold

Figure 9-1 shows the main screen for the Levelogger Gold Software Version 3.4.0 To begin communication between the Leveloader Gold and the PC, connect the Leveloader using either the supplied USB or RS232 cables. Select the proper communications port that the Leveloader is connected to using the drop down 'Com Port Selection' window. Turn the Leveloader on and select the 'Data to PC' option from the Leveloader main menu. To access the Leveloader options from the software window click on the 'Data Control' tab and the 'Leveloader' tab.



Figure 9-1 Leveloader Window



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To download data from the Leveloader, click the download icon \checkmark . A window will open displaying the log files currently in the Leveloader with the destination folder on the right (Figure 9-2). Select the files to download, then click the 'OK' button to start the transfer process.



Figure 9-2 Levelogger File Selection Window









Remember that the Leveloader Gold unit must be in the 'Data to PC' mode.

9.1 Customizable Levelogger Settings File Setup

This feature will allow the user to input up to 10 customized files with pre-defined settings for the Levelogger series including: Project ID, Location, Sample Mode, Sample Rate, Altitude, Density, Channel ID, Units and Offset.

To create a settings file click on the Levelogger Settings File Setup icon located on the Levelogger main screen. Once the setup window appears, enter the desired settings to create the customized file (Figure 9-3). To load the file to the Leveloader click the 'Update' button and then click the load icon . A message will confirm that the file has been sent.

Levelogger Settings Files can also be saved to the software by selecting the save icon .

The file will be saved as a *.lls file and can be retrieved using the open icon 🗯

evelogger settings Fite	, seruh
Levelogger Settings	ile 1: Test1
Settings Title	Test1 (Displayed on Leveloader)
Levelogger Type	LT-Gold
Project ID:	Solinst
Location:	SolinstTest
Altitude:	500
🔲 Density Adjustment:	1 (ka/L) (0.90 - 1.10)
Sample Mode:	Event Based 💽 0.5 % 🕂
Sample Rate:	Second(s)
Channel 1 Channel 2	
Identification:	LEVEL
Unit:	m
Offset:	0
	Update Close

Figure 9-3 Levelogger File Settings Window





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The example below shows a customized file in the 'Leveloader Settings File Setup' window (Figure 9-4). Please note that inputs into the 'Settings File' will appear as the settings file in the Leveloader Gold (Figure 9-5). To create and add more than one customizable file the user must select a new 'Levelogger Settings File' slot from the drop down menu (highlighted drop down menu below).

Levelogger Settings File Setup				
Levelogger Settings File	I.	1: PumpTest 💌		
Settings Title	PumpTest	(Displayed on Leveloader)		
Levelogger Type	LT-Gold	•		
Project ID:	Aquifer Recovery			
Location:	Site 1, Well A			
Altitude:	0			
🔲 Density Adjustment:	1	(ka/L) (0.90 - 1.10)		
Sample Mode:	Linear	•		
Sample Rate:	Second(s)	▼ 5		
Channel 1 Channel 2				
Identification:	Pressure			
Unit:	m			
Offset:	0			
	,	,		
		<u>U</u> pdate <u>C</u> lose		

Figure 9-4 Levelogger File Settings Window - Customized File

		1774	22:28	
Load Settings Files				
File	1	PumpTest		ł
File	2	SlugTest		I
File	3	StepTest		I
File	4	Monitor1		I
File	5	Monitor2		
С	θK	N	lenu	

Figure 9-5 Leveloader Gold - Load Settings File Window



Solinst



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9.2 Erase Data

To erase the stored files on the Leveloader Gold, click on the erase icon located in the Levelogger Software (3.3.0 or later) main window. A message will prompt the user that all of the data will be erased. Once the data is erased, the attached Leveloader Gold will indicate that there are 0 logs stored.

9.3 Clock Synchronization

The attached Leveloader Gold's system time is displayed in the bottom left corner of the Levelogger Software window. To synchronize the Leveloader Gold to the PC clock, simply click the 'Synchronize' button (Figure 9-6).











A maximum of 6 characters can be entered for the password.

9.4 Password Setup

Activating the password protection function will prevent unauthorized changes to the Levelogger Settings. To activate this feature, click the password icon

A window will appear requesting the user to enter the current password and then enter a new one (Figure 9-8). If you are entering a password for the first time you must leave the current password field blank.

Leveloader Password Setup	×			
Please enter the current password:				
Enable Bassword Protection on Edit Levelogger				
Please enter the new password:				
Please re-enter the new password to confirm:				
OK Cancel				

Figure 9-8 Password Setup Window









Note: DO NOT allow an interruption to

communication between the PC and Leveloader Gold during a firmware upgrade. It is important that the communication between the PC and the Leveloader is not interrupted during a firmware/calibration upload.

PLEASE make sure to close any other running programs, especially screen savers, and DO NOT disconnect the Leveloader before the upload is finished.

10 Firmware Upgrade Utility

The Firmware Upgrade Utility is included with the Levelogger PC Software and can be used to upload new firmware files into a Leveloader Gold. The firmware file can be obtained from http://www.solinst.com/Downloads/

To upload new firmware to a Leveloader Gold, follow these steps:

- Turn the Leveloader ON, scroll to the 'Data to PC' option on the Leveloader Menu and select 'OK'. Connect the Leveloader to the PC using the USB or RS-232 Communication Cable.
- 2) Open the Solinst Firmware Update Utility (LLGfirmwareUpdate.exe), which is located in the 'Utility' folder in the Levelogger 3 folder. It can also be launched from the Utilities menu in the main Levelogger Gold Software. Pick the Com Port to which the Levelogger is connected and make sure the Baud Rate is set to 115200.
- 3) Click the leftmost *(Construction)* 'Open' button, which should open a file dialog asking for the firmware file (*.ssf) to upload. Navigate to the directory where the firmware file is located then click on the file and click 'Open'.
- 4) Check the 'Firmware File Information' box to make sure that the opened file is the right one.
- 5) Click the 'Upload **F** Firmware' button, which is the second button from the left, to start the firmware upload process.
- 6) If a communication error occurs and is indicated in the Leveloader Information Window either before the "Verified Program Checksum" message or after the "Program Information Section", then restart the upgrade process.



Figure 10-1 Firmware Upgrade Utility Window









Leveloader Gold Connections



IMPORTANT

If using USB connection to your PC, please read the USB Installation Instructions in your Levelogger[®] Gold User Guide.

Levelogger Software can be downloaded at: http://www.solinst.com/Downloads/

Solinst works hard to make our equipment (old & new) work together. This sometimes requires a specific combination of firmware and software versions, please call a Solinst Technical Representative to discuss the best set-up for your application.



Quick Start Guide

Leveloader Gold



High Quality Groundwater and Surface Water Monitoring Instrumentation

 April 13, 2009
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Solinst[®]

Using the Leveloader Gold

To begin using your Leveloader Gold, download the latest Levelogger Software and the Leveloader Gold instruction manual (www.solinst.com/Downloads/).

- 1. Press and hold the ON button. (To turn OFF, hold ON button for 3 seconds.)
- 2. Use the Up and Down Buttons to scroll through menus, data sets etc.
- 3. Chevron Buttons correspond to the options displayed directly above.

Connecting to a Levelogger

1. Select 'Connect to Logger' from the main menu.

Key Functions

1. To enable Real Time function, select 'Real Time - View Only'.

An instantaneous reading will be displayed. Scheduled updates can be activated by selecting 'Real Time ON'. User will then input a sampling interval.

Note: As Real Time Values cannot be saved on a Leveloader, we recommend the Levelogger first be started and recording, or using a field laptop for saving Real Time Values.

2. To start the Levelogger, select 'Restart Levelogger'. If the unit is currently running, a message will alert the user that the Levelogger must first be stopped in order to be restarted.

Note: Restarting the Levelogger will erase any previously recorded data.

- 3. To save a Levelogger file, select 'Data from Levelogger', then select 'Save Log'.
- 4. To edit a Levelogger, select 'Edit Levelogger' you can then change: Instrument #, Location, Sample Rate, Sample Type, Altitude.

Leveloader Gold Menu Connect to Logger	1	Will take a reading immediately and display all channels.When 'Real Time On' selected, user can select a sampling rate.
View Stored Data		
Data to PC Leveloader Setup		• Display and scroll the data set of the connected Levelogger.
	1	• Gives the user the option to save the Levelogger data file.
ОК		<u> </u>
		• Displays the connected Levelogger's: Firmware version, battery % remaining, # of readings, date/time, logger start status.
(<u>m</u> ; 22:20		
Levelogger Menu Real Time - View Only Data from Levelogger Info from Levelogger		• Allows editing of Levelogger's: Instrument number, location, sampling regime, altitude, synchronize time to the Leveloader.
Edit Levelogger		
OK Return		• Up to 10 customized Levelogger Settings Files can be loaded, preset with Levelogger programming, sampling regime, etc.

5. To Synchronize the Levelogger, select 'Edit Levelogger', highlight the 'Sync to Loader' option and select the 'Edit' button.

Downloading Data to a PC

- 1. Turn the Leveloader ON. Attach cable from Leveloader to PC (RS232 and USB cables provided).
- 2. From the Leveloader Gold Menu, select 'Data to PC'
- 3. In the Levelogger Software, select the Com Port your cable is connected to.
- 4. In the Levelogger Software go to: 'Data Control' > 'Leveloader' and select the download icon.

Equipment Check

The Leveloader Gold comes with: USB cable and RS232 cable for PC connection, a cable for direct connection to a Levelogger and a cable for connection to a Direct Read Cable.

Power

Leveloader Gold uses a 9V battery. If the battery gauge on the Leveloader is low, replace the battery with either an alkaline or lithium. Access the battery by unscrewing the battery hatch.



