FlashLink® Models 40527, 40527-01

Certified Vaccine PDF Data Logger

Getting Started with the FlashLink Certified Vaccine PDF Data Logger

Installing the Software

Insert the FlashLink Program Manager flash drive into a USB port of a PC. There are two files, a license and FlashLink.exe software installation file. Save these to the PC hard drive. If you do not have a flash drive and only have the license, download the software from the DeltaTrak web site http://www.deltatrak.com/support/software-drivers

Note: The license key can be used on two computers.

Navigate to the files on the hard drive. Open the license document and note the license key number. Double click on FlashLink.exe and follow instructions in the dialog boxes that appear on the screen. When you get to the **Enter License** dialog box, key in the number provided in the license and select **Activate**.
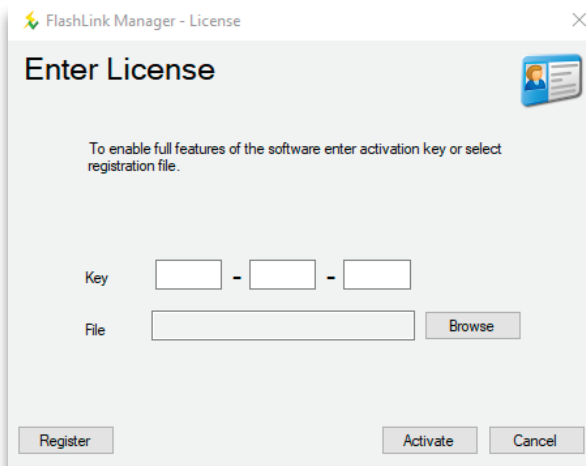
The FlashLink shortcut icon will appear on the desktop and system tray. Double click the icon to open the program. FlashLink Program Manager runs automatically and detects when a data logger is connected to the USB port for programming and downloading.

During software installation, subfolders for PDF and CSV file storage are created in the main FlashLink folder. When a data logger is downloaded, PDF and CSV reports are automatically generated and saved in these folders for record keeping.

Programming the Logger

Right click on the FlashLink icon to open the main menu.

Options
Setup
Import
ColdTrak File Processing
Data Analysis ▶
About
Update
Exit

- **Options** - Customize FlashLink software display, file storage location, report appearance, enable 21 CFR administration

- **Setup** - Create/save logger configuration files, including logging periods, intervals, alarm thresholds

- **Import** - Import and reuse saved Setup configuration files

- **ColdTrak File Processing** - Send data files to ColdTrak Server Database (optional cloud service)

- **Data Analysis** - View trends and details, compare multiple charts from a single data logger or several loggers

- **About** - Displays FlashLink software version, provides a link to Help files

- **Update** - Checks DeltaTrak server for available FlashLink software updates

- **Exit** - Closes FlashLink application
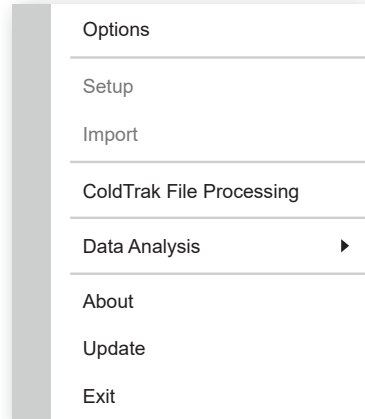
FlashLink Help is a complete user guide that is accessible from any screen by clicking on the [?] symbol in the top, right corner. Specific topics can easily be found in the table of contents or by using the keyword search bar.

Plug the FlashLink Data Logger into the USB port of the computer, select **Setup** to open the **Logger Configuration Wizard**. The current configuration is displayed. Click on **Next** to access **Logging Options** and select desired configuration parameters. **New Configuration** window will confirm settings, select **Next** and **OK** to upload the configuration to the data logger. The **Reactivate** option will keep the settings currently programmed in the unit.

Once configured, the logger can now be activated, downloaded and reset without having to use FlashLink Program Manager. The software will be needed when configuration changes are required.

Alarm Notifications

The alarm and audible buzzer must be enabled during logger configuration, including buzzer interval and alarm set points. The bell icon, flashing LED and buzzer will activate with the first alarm event. The buzzer will not stop until the logger is downloaded, LEDs and icons remain on the LCD until the logger is reset or reconfigured.

Alarm delay can be programmed to trigger only when temperature excursions continue beyond the set delay period that starts with the first alarm event. The buzzer can be temporarily silenced by pressing the **STOP** button and will restart when the next temperature reading is recorded.

Note: The buzzer consumes more energy and should be stopped as soon as possible to conserve battery life.
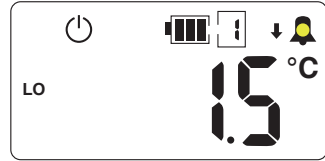
Level 1 High/Low Alarm

 Numeral 1 icon
Yellow LED flashes every 5 seconds
High ⬆ or Low ⬇
Buzzer sound 1 beep at set interval

Level 2 Extreme High/Low Alarm

 Numeral 2 icon
Red LED flashes every 5 seconds
High ⬆ or Low ⬇
Buzzer sound 3 beeps at set interval
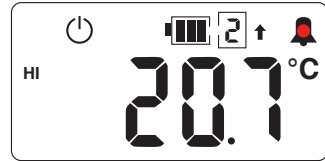
The LCD Screen
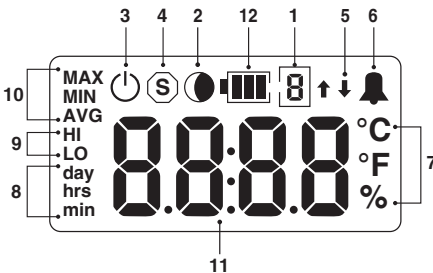
1. Sensor/alarm channel enumerator
2. Shadow logging icon
3. Active mode icon
4. Stop mode icon
5. High and low alarm arrows
6. Alarm icon
7. °C, °F & % scale icons
8. Day, Hours and Minutes icons
9. High and Low Alarm set point icons
10. Statistical icons
11. 4 digit numerical display
12. Battery Capacity Gauge

The Glycol Bottle

This digital data logger (DDL) features a stainless steel sensor enclosed in a bottle of propylene glycol. The cable has a stereo jack for quick disconnect to easily detach the logger and download data. The glycol buffered sensor emulates products in the storage unit and keeps the sensor from setting off false alarms due to rapid temperature fluctuations caused by frequent door opening during normal daily use.

Place the glycol bottle sensor in the center of the refrigerator or freezer, attach

the logger to the outside of the unit. Allow at least 1 hour for the sensor to reach equilibrium before activating the logger. When the sensor doesn't have enough time to equilibrate to the internal temperature, it will trigger a false alarm if it is still above the high alarm set point.

Starting the Logger

Press and hold the **START** button until a temperature reading appears on the LCD without flashing. If the glycol bottle is inside the storage unit and was allowed to acclimate for at least 1 hour, it will be simulating the temperature of the vaccines vials stored around it. If **LLL.L** appears on the LCD, the sensor is not connected. Check the stereo jack to make sure it is completely inserted.
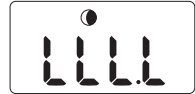
Daily Statistics on LCD

Temperature statistics from the last 24 hours of recorded data are available for viewing on-demand at any time without stopping the logger.
A single press of the green **START** button shows a statistic on the LCD, each subsequent button-press advances to the next statistic. The LCD automatically reverts to current reading about five seconds after button release and showing a statistic. The LCD scrolls through values in this order:
• Maximum temperature
• Minimum temperature
• Average temperature

If alarms limits are programmed:
• High alarm set point
• Accumulated time above high alarm, if no excursions, 00:00 is displayed
• Low alarm set point
• Accumulated time below low alarm, if no excursions, 00:00 is displayed

Inserting Waypoints

If a temperature reading needs to be confirmed at a check point during transportation or storage, a waypoint can be inserted as a marker to flag date/time of this event. The waypoint option must first be enabled during logger configuration.

Press and hold the **START** button until **FLA9** appears on the LCD and release when it stops flashing. The waypoint has been inserted and the LCD will revert to current temperature reading. When reports are created at the end of the logging period, waypoints appear as a vertical line on the graph and have an asterisk in the data table.

Stopping the Logger

If monitoring needs to continue after the logger is downloaded, do not remove the sensor from the storage unit.. Press and hold the red **STOP** button until

StoP appears on the LCD without flashing. Detach the logger from the sensor cable, making sure the glycol bottle remains inside with the vaccines.

Downloading Reports

Option 1 - When the **STOP** button is pressed, FlashLink PDF Data Logger automatically generates PDF and CSV reports using its onboard software and saves these files to an internal memory. This allows personnel to download and save reports on any PC and does not require FlashLink Program Manager software.

Option 2 - Download data to a PC which is running FlashLink Program Manager software. When a data logger is plugged into the USB port, the software automatically detects the logger, generates and saves Adobe® PDF and CSV reports to the subfolders in the FlashLink main folder.

FlashLink PDF Report

△ DeltaTrak.   FlashLink® PDF Report

Trip Information

Order	
Shipper	
City	
Receiver	
Carrier	
Signature	

Logger Configuration

Interval	00 Hrs 10 Mins 00 Secs
Start Delay	000 Days 00 Hrs 00 Mins
Serial #	60015338-0101
Model #	40525
Alarm Skip	0 pts
Alarm Delay	000 Days 00 Hrs 00 Mins
Time Zone	GMT - 04

Alarm Results

	Limit	Cumulative Limit	First Event	Events	Total Time	Pass/Fail
Extreme High	10.0 °C	000 Days 00 Hrs 00 Mins	05/18/2016 15:45:52	1	000 Days 00 Hrs 10 Mins	FAIL
High	8.0 °C	000 Days 00 Hrs 00 Mins	05/18/2016 15:45:52	2	000 Days 00 Hrs 20 Mins	FAIL
Low	2.0 °C	000 Days 00 Hrs 00 Mins	05/18/2016 18:45:52	17	000 Days 02 Hrs 50 Mins	FAIL
Extreme Low	0.0 °C	000 Days 00 Hrs 00 Mins	None	0	000 Days 00 Hrs 00 Mins	PASS

Logged Data Summary

Type	Points	Recorded Period	Start Time	Stop Time	Download Time
Normal	136	22 Hrs 40 Mins 00 Secs	05/18/2016 15:35:52	05/19/2016 14:15:52	05/19/2016 14:21:11

Statistical Summary

Minimum	Maximum	Average	Degree Minutes	Mean ± Standard Deviation	Mean Kinetic Temperature
1.9 °C	11.3 °C	2.6 °C	13.0 °C x Mins	2.6 °C ± 1.0 °C	2.7 °C

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DeltaTrak. FlashLink. PDF Report

| #	Time	°C	#	Time	°C	#	Time	°C
00001	05/18/2016 15:45:52	11.3	00052	05/19/2016 00:15:52	3.3	00103	05/19/2016 08:45:52	2.7
00002	05/18/2016 15:55:52	8.5	00053	05/19/2016 00:25:52	3.4	00104	05/19/2016 08:55:52	2.2
00003	05/18/2016 16:05:52	6.2	00054	05/19/2016 00:35:52	3.1	00105	05/19/2016 09:05:52	2.0
00004	05/18/2016 16:15:52	4.1	00055	05/19/2016 00:45:52	2.5	00106	05/19/2016 09:15:52	2.1
00005	05/18/2016 16:25:52	3.0	00056	05/19/2016 00:55:52	2.1	00107	05/19/2016 09:25:52	2.2
00006	05/18/2016 16:35:52	2.8	00057	05/19/2016 01:05:52	2.1	00108	05/19/2016 09:35:52	2.4
00007	05/18/2016 16:45:52	2.9	00058	05/19/2016 01:15:52	2.2	00109	05/19/2016 09:45:52	2.6
00008	05/18/2016 16:55:52	3.1	00059	05/19/2016 01:25:52	2.5	00110	05/19/2016 09:55:52	2.7
00009	05/18/2016 17:05:52	3.2	00060	05/19/2016 01:35:52	2.7	00111	05/19/2016 10:05:52	2.3
00010	05/18/2016 17:15:52	3.3	00061	05/19/2016 01:45:52	2.9	00112	05/19/2016 10:15:52	2.0
00011	05/18/2016 17:25:52	2.9	00062	05/19/2016 01:55:52	2.7	00113	05/19/2016 10:25:52	2.0
00012	05/18/2016 17:35:52	2.3	00063	05/19/2016 02:05:52	2.2	00114	05/19/2016 10:35:52	2.1
00013	05/18/2016 17:45:52	2.1	00064	05/19/2016 02:15:52	2.0	00115	05/19/2016 10:45:52	2.3
00014	05/18/2016 17:55:52	2.3	00065	05/19/2016 02:25:52	2.1	00116	05/19/2016 10:55:52	2.5
00015	05/18/2016 18:05:52	2.7	00066	05/19/2016 02:35:52	2.3	00117	05/19/2016 11:05:52	2.7
00016	05/18/2016 18:15:52	3.5	00067	05/19/2016 02:45:52	2.5	00118	05/19/2016 11:15:52	2.6
00017	05/18/2016 18:25:52	3.4	00068	05/19/2016 02:55:52	2.7	00119	05/19/2016 11:25:52	2.1
00018	05/18/2016 18:35:52	2.6	00069	05/19/2016 03:05:52	2.7	00120	05/19/2016 11:35:52	2.0
00019	05/18/2016 18:45:52	1.9	00070	05/19/2016 03:15:52	2.3	00121	05/19/2016 11:45:52	2.1
00020	05/18/2016 18:55:52	1.9	00071	05/19/2016 03:25:52	2.0	00122	05/19/2016 11:55:52	2.2
00021	05/18/2016 19:05:52	2.1	00072	05/19/2016 03:35:52	2.0	00123	05/19/2016 12:05:52	2.4
00022	05/18/2016 19:15:52	3.0	00073	05/19/2016 03:45:52	2.2	00124	05/19/2016 12:15:52	2.6
00023	05/18/2016 19:25:52	3.7	00074	05/19/2016 03:55:52	2.4	00125	05/19/2016 12:25:52	2.7
00024	05/18/2016 19:35:52	3.7	00075	05/19/2016 04:05:52	2.6	00126	05/19/2016 12:35:52	2.4
00025	05/18/2016 19:45:52	3.2	00076	05/19/2016 04:15:52	2.8	00127	05/19/2016 12:45:52	2.0
00026	05/18/2016 19:55:52	2.5	00077	05/19/2016 04:25:52	2.6	00128	05/19/2016 12:55:52	2.0
00027	05/18/2016 20:05:52	2.2	00078	05/19/2016 04:35:52	2.1	00129	05/19/2016 13:05:52	2.2
00028	05/18/2016 20:15:52	2.2	00079	05/19/2016 04:45:52	2.0	00130	05/19/2016 13:15:52	2.4
00029	05/18/2016 20:25:52	2.4	00080	05/19/2016 04:55:52	2.1	00131	05/19/2016 13:25:52	2.7
00030	05/18/2016 20:35:52	2.8	00081	05/19/2016 05:05:52	2.3	00132	05/19/2016 13:35:52	2.2
00031	05/18/2016 20:45:52	2.9	00082	05/19/2016 05:15:52	2.5	00133	05/19/2016 13:45:52	2.1
00032	05/18/2016 20:55:52	2.6	00083	05/19/2016 05:25:52	2.7	00134	05/19/2016 13:55:52	2.2
00033	05/18/2016 21:05:52	2.2	00084	05/19/2016 05:35:52	2.6	00135	05/19/2016 14:05:52	2.0
00034	05/18/2016 21:15:52	2.0	00085	05/19/2016 05:45:52	3.2	00136	05/19/2016 14:15:52	2.0
00035	05/18/2016 21:25:52	2.3	00086	05/19/2016 05:55:52	3.2			
00036	05/18/2016 21:35:52	2.8	00087	05/19/2016 06:05:52	2.9			
00037	05/18/2016 21:45:52	3.0	00088	05/19/2016 06:15:52	2.2			
00038	05/18/2016 21:55:52	3.3	00089	05/19/2016 06:25:52	2.0			
00039	05/18/2016 22:05:52	3.2	00090	05/19/2016 06:35:52	2.1			
00040	05/18/2016 22:15:52	2.8	00091	05/19/2016 06:45:52	2.3			
00041	05/18/2016 22:25:52	2.2	00092	05/19/2016 06:55:52	2.5			
00042	05/18/2016 22:35:52	2.1	00093	05/19/2016 07:05:52	2.9			
00043	05/18/2016 22:45:52	2.2	00094	05/19/2016 07:15:52	3.3			
00044	05/18/2016 22:55:52	2.4	00095	05/19/2016 07:25:52	3.1			
00045	05/18/2016 23:05:52	2.8	00096	05/19/2016 07:35:52	2.5			
00046	05/18/2016 23:15:52	2.8	00097	05/19/2016 07:45:52	2.1			
00047	05/18/2016 23:25:52	2.8	00098	05/19/2016 07:55:52	2.1			
00048	05/18/2016 23:35:52	2.1	00099	05/19/2016 08:05:52	2.2			
00049	05/18/2016 23:45:52	2.1	00100	05/19/2016 08:15:52	2.4			
00050	05/18/2016 23:55:52	2.4	00101	05/19/2016 08:25:52	2.6			
00051	05/19/2016 00:05:52	3.0	00102	05/19/2016 08:35:52	2.9			

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Resetting After Download

Resetting the logger will clear recorded data from its memory. After saving the PDF and CSV files, remove the logger from the USB port, the LCD should still display **StoP**. To restart the unit without changing settings, press and hold down both the **START** and **STOP** buttons at the same time until ⊣⊢ stops flashing on the LCD.

Release the buttons and the LCD will flash all icons while it resets. When you see a blank screen with ◖ first plug the logger back into the glycol bottle sensor connector, and then press and hold the **START** button until the current temperature reading appears on the LCD. The logger will now resume recording.

Remaining Battery Voltage

The LCD includes a battery icon to indicate when the battery is low.
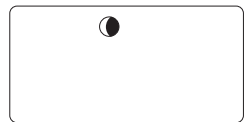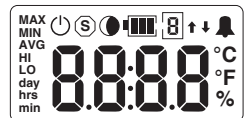
Troubleshooting

Contact Tech Support:
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