Lascar Electronics EL-USB-TP-LCD Data Logger
Reference Sheet

Installing the EasyLog USB Software

When installing the data logger, the provider may need to check with their IT department IN ADVANCE to determine if administrative rights are needed to install the data logger software.

1. Install the EL-WIN-USB Windows Control Software (updated version of software) <u>AND</u> the driver from http://www.lascarelectronics.com/data-logger/easylogger-software.php

2. After installation, an icon will appear on your desktop, "**EasyLog USB**"

3. Remove the clear plastic USB cap. Connect the data logger to the computer, using the USB connection port.

4. Double click on the EasyLog USB icon on your Windows® desktop - this will load the configuration software. You will have 3 options:
   - Setup and start the data logger
   - Stop the USB data logger and download data
   - View previously saved data

SETTING UP THE DATA LOGGER

This will be selected to set up a new logger or to reset a logger after downloading the data file. Plug the USB data logger into your computer. Open the EasyLog Software.

1. Select   '**Set up and start the USB data logger**'. This will take you through five setup screens.

2. First Screen:
   a. Name your logger (VFC 5-digit number, starting with "2" and indicate "R" for refrigerator or "F" for freezer at the end of the 5-digit code (e.g. 22001R or 22001F). You may need to add more information to clarify additional storage units (e.g. Lab refrigerator, pharmacy freezer, etc.)
   b. Select the temperature scale the provider prefers - Fahrenheit or Celsius.
   c. Select '**15 minutes'** for the frequency that the logger will log a reading (>2 years).
   d. Select **NEXT.**

3. Second Screen:
   a. Select '**LCD Always On'.**
   b. Select **'Logger continues to log, overwriting the oldest data when full'.**
   c. Select **NEXT.**

4. Third Screen: Setup will vary depending on unit type (Refrigerator or Freezer)
   <u>Refrigerator Setup:</u>
   a. Check the High Alarm and Low Alarm.
   b. Ensure that the '**Disable LEDs'** is *unchecked*.
   c. Set the alarms High alarm: 46˚F / 8˚ C; Low alarm: 36˚F / 2˚C. Check the **Hold** box next to each.
   d. Select **NEXT.**

Freezer Setup:

a. Check the High Alarm *only*.
b. Ensure that the '**Disable LEDs'** is ***unchecked***.
c. Set the alarms High alarm: 5˚F / -15˚ C. Check the **Hold** box next to the High Alarm.
d. Select **NEXT.**

5. Fourth Screen:

Refrigerator Setup:

a. Enter '**4**' for the Number of High Alarms, and '**4**' for the Number of Low Alarms.
b. Select **NEXT.**

Freezer Setup:

a. Enter '**4**' for the Number of High Alarms.
b. Select **NEXT.**

6. Fifth Screen:

Restarting a data logger with the glycol that has been in the storage unit for at least 2 hours:

a. Select **'Delay the start of the data logger; select a start time and start date'**.
b. Type a start time that is rounded to the nearest quarter hour. (i.e. convert 11:07AM to 11:15AM) Press the Tab button to move from the hour to the minute, and so on.
c. Use the current date for the start date.
d. Select **FINISH** Time

Starting a data logger but the glycol **HAS NOT** been in the storage unit for at least 2 hours:

a. Select **'Delay the start of the data logger; select a start time and start date'**.
b. Type a start time that 2 hours in the future to allow the glycol to acclimate (i.e. Current time is 11:07AM would be a start time of 1:15PM). Press the Tab button to move from the hour to the minute, and so on.
c. Use the current date for the start date.
d. Select **FINISH** Time

7. Confirmation Page:

a. Click '**OK'.**
b. Remove the data logger from the USB connection port on the computer, replace the clear plastic cap, connect the jack of the glycol probe to the socket at the base of the data logger, and connect the magnetic mounting clip. Take care to place each logger in the corresponding unit that it was set to measure.

8. Ensure the glycol probe is placed standing upright in the most centralized area in the refrigerator or freezer. Stay away from walls, top shelf of the refrigerator, doors, or drawers. Place the USB data logger on the outside of the storage unit using the magnetic clip..

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DOWNLOADING THE DATA LOGGER

This will be selected to download the data file from a logger that was recording temperatures. Unplug the data logger from the glycol probe. Plug the data logger into your computer's USB port. Open the EasyLog software on your computer.

1. Select '**Stop the USB data logger and download data**'.

2. You will receive a message **'Are you sure you want to STOP the Data Logger?'** Select **'Yes'.**

3. You will receive a message that the logger is in the Stopped position along with the number of recorded readings. Select **'OK'**.

4. The next screen will be the "Save As" box.
    a. Make sure the file location displayed is dedicated to the data logger files.
    b. The file name will default to the logger's name. Change the name of the file by adding the current date to the file name each time you download to avoid losing previously saved data.

5. Select **'Save'** after you type in the name of the file with a current date. The file created will be a text file with the extension: .txt.

6. Once saved, a graph containing all the readings will be displayed. You can export all readings to Excel®, if you have Microsoft Office® products. To do this, select the **'Export'** button in the menu bar and choose the last option- *Excel*.

7. Once the data has been exported to Excel®, a graph will appear. Name and save your Excel file with a unique name so that it is not the same as another file.

8. Once the data is downloaded, the logger is in the stopped mode. Remember to go back to the setup step to reprogram the logger. Select **'Start when the data logger button is pressed'** to restart the data logger.

Upon discovering a flashing red data logger light, ODH has a requirement that providers must quarantine vaccine and contact the Ohio Department of Health Immunization Program immediately at 1-800-282-0546. Providers will be asked to email the data file (.txt or Excel) to the Immunization Program.

VIEWING PREVIOUSLY SAVED DATA

This will help to view previously downloaded data logger files that are saved on the computer
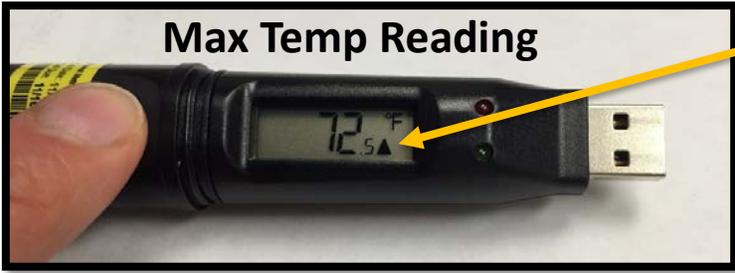
1. To view previously saved data, select 'View **previously saved data'.**

2. Open your dedicated data logger folder from your computer. Select the .txt file. Select '**Open'.**

3. Note: If you attempt to directly open the .txt file from your computer (instead of opening the .txt file using the Easy Log software, the data is difficult to read and you will not be able to view the information in a graph nor export the data to Excel ®

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Checking Min/Max readings:

Max Temp Reading

Press the LCD button to display the Max temperature indicated by the ▲ in the bottom right hand side of the screen.

Min Temp Reading

Press the LCD button again to switch the display to the Min temperature indicated by the ▼ in the bottom right hand side of the screen.

Press and hold the LCD button to clear out the previous recorded Min/Max temps. Hold until "CLr" appears on the screen. (approx 3-5 seconds).

Logger LCD readings:

'- - -'	When there is no temperature reading on the LCD and the logger button is pressed, this indicates the logger has not been programmed to record temperatures. Return the logger to the computer to reset it for recording
'Prob A'	Indicates the glycol probe jack is not completely connected to the data logger. Firmly push the jack into the socket at the base of the data logger. 'Prob A' reading should go away when the temperature is recorded at the next 15 minute interval
'dS'	Indicates the logger is set to delayed start mode
'▲'	Indicates the reading on the LCD is the Maximum reading since the min/max were last reset
'▼'	Indicates the reading on the LCD is the Minimum reading since the min/max were last reset
'CLr'	Indicates the min/max temps have been reset