

SHOCKWATCH®

Damage Prevention and Safety Solutions



LOG-IC USB Datalogger Operator User Manual



Preparing LOG-IC Datalogger For Use

Step 1) Install the latest version of the LOG-IC Software.

Step 2) Connect the Desktop Reader or plug in a USB logger.

Step 3) Build Configuration Template (if you prefer to use a default configuration, skip to step 4):

1. Select .
2. Select Add.
3. Complete Template. The template will automatically be saved under **Custom** for future use.

Step 4) Configure LOG-IC 360 Loggers:

1. Select the configuration that you want to use.
2. Scan or connect the logger while clicking **Configure**. A green **Passed** sign will appear when the command is successful.

Step 5) Program Start/Stop Options:

1. Select .
2. If you are re-using a Multi-Use logger, review the **Tag Management** screen to check **Remaining Tag Life** and **Use Count Remaining**.
3. Select **Start Tag** option from the drop down list.
4. Select **Stop Tag** option from the drop down list.
5. Scan or connect the logger while clicking **Start**. A green **Passed** sign will appear when the command is successful.
6. If you have selected **With Tag Button Press**, you must press the **ON/OFF** button to turn the logger on. There will be a confirmation blink in the Active LED display if you have successfully pressed the button.

*If your loggers were **NOT** sent to you **Configured** and in **OFF** mode, follow all steps to the left.

*If your loggers were sent **Configured** and in **Standby** mode, these steps are not necessary. Contact your representative if you need instructions in turning the logger on.

*If your loggers were sent **Configured** and in **OFF** mode, follow Steps **1, 2** and **5**.

To verify logger programming/setup, go to the home screen and review the Overview, Info, and/or SetUp tabs.



LOG-IC Management Software Installation

LOG-IC 360 software is management software. It allows a user to configure, program Start/Stop functions, analyze data and export reports.

Step 1) Go to: www.americanthermal.com/support

Step 2) At the bottom of the page enter the following Username and Password in the spaces provided (note that this is case sensitive.)

Username: ati

Password: log-ic

Step 3) Click the LOG-IC 360 Desktop Software icon as shown:



A final USB driver install will automatically be prompted when a first time user connects a reader or USB logger.

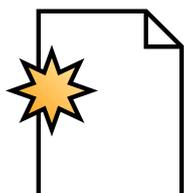
This completes the installation of LOG-IC 360 Desktop Software.



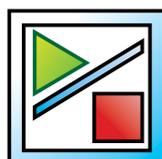
LOG-IC Management Software Shortcut Icons

Icons found in the Shortcut Toolbar:

To access the following icons the logger must be connected or scanned.



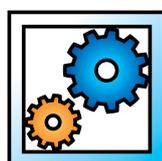
This is the **New Work Session** icon. Selecting this icon creates a new .LDF (LOG-IC Data File.)



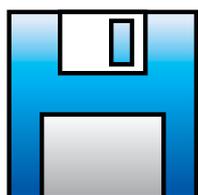
This is the **Tag Mode** icon. Selecting this icon allows you to program start/stop options.



This is the **Open** icon. Selecting this icon allows access to previously saved .LDF's.



This is the **Configure Tag** icon. Selecting this icon allows you to configure tags.



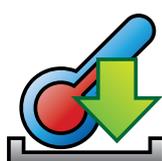
This is the **Save** icon. Selecting this icon saves the .LDF.



This is the **Tag Name** icon. Selecting this icon allows you to upload a Tag Label or Tag Data to a logger.



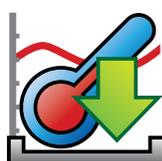
This is the **Export PDF** icon. Selecting this icon generates a .PDF



This is the **Current Tag Temperature** icon. Click while scanning or connected to view current temperature.



This is the **Export CSV/Excel** icon. Selecting this icon exports data to an Excel file.



This is the **Download Tag** icon. This icon is for downloading temperature data logs and is only needed when a user changes options to prevent automatic download.



This is the **Sync HHR** icon. This icon is used to transfer data from an HHR to your PC. HHR must be connected to activate.



LOG-IC Datalogger Configuration

Open LOG-IC 360 Management Software. Click . Review Default configurations. If you find a Default configuration that suits your needs, select it and follow instructions to "Configure Loggers" at the end of this page. If you would like a Custom configuration follow the steps to "Build Custom Configuration Template."

BUILD CUSTOM CONFIGURATION TEMPLATE

Step 1) Select .

Step 2) Select Add and complete the following:

- **Build Configuration for:** the LOG-IC software will automatically load the correct product version upon scanning- no action required.
- **Name:** Enter a name for the configuration template.
- **°C or °F:** Select your preference.

Excursions

- **Temp:** You may enter up to 8 excursion limits. Enter preferred temperature(s) in 1st column.

	Adds a low excursion
	Adds a high excursion <i>*Up to 8 total excursion limits can be programmed.</i>
	Subtracts excursion limit <i>*It is possible to program loggers with no excursion limits. The logger will then only plot data points in the curve graph.</i>
	Assign 2 trigger times to one temperature

- **Trigger Type:** Select minutes, hours or days. Enter time. This refers to the amount of time above or below temperature limits that is allowable. Once trigger time has been exceeded, an excursion will be marked.
- **Event:** Select Single or Cumulative. Single event refers to continuous time above/below temperature limits. Cumulative refers to total time above/below temperature limits.
- **Status:** Select solid, blink or none. This refers to the LED lights on the Logger.
- **Stop Excursion Filter:** Choose an increment of time from drop down menu. If selected, excursions occurring at the end of the recording duration will not be listed in the Excursion Tab or the Excursion Section of a PDF report. All excursions will appear in Curve graph.

- **Enable Blink On Excursion:** Checking this box will cause the logger to blink (without pressing the status button) if an excursion occurs. Both HI and LO LEDs will blink. To discern what type of alarm has occurred, the status button must be pressed on the logger.

Timing

- **Logging Interval:** Select from the drop down box. This refers to recorded data points. When selected note the Max Logging Time under "Constraints". Select a time increment that coincides with the total time you plan to record.
- **Soaking Countdown:** Select from the drop down box. The soaking countdown is a start delay. The logger will begin to record after the start delay expires.

Once template is complete, Click **OK**. This configuration will appear under Custom configurations.

To configure the logger, follow "Configure Loggers" instruction below.

CONFIGURE LOGGERS

Step 1) Select .

Step 2) Select a default or custom configuration.

Step 3) Scan or connect the logger while clicking Configure. A green **Passed** sign will appear when the command is successful.



Programming LOG-IC Start/Stop Options

The state that a logger is in is called **Tag Mode**. The following are the possible modes:

- **Off Mode:** The logger cannot be turned on by pressing the button. You must program the logger using the desktop software to be able to turn it on by pressing the button. The logger is not recording.
- **Standby Mode:** The logger has been programmed to start by pressing the button or has been programmed to automatically start at a specific time.
- **Soaking Mode:** The logger is running and will begin recording once the Soaking Countdown expires.
- **Recording Mode:** The logger is recording/logging temperature.

To Program LOG-IC Start/Stop Options, follow these instructions using LOG-IC Management Software:

Step 1) Select .

Step 2) If you are re-using a Multi-Use logger, review the Tag Management screen to check **Remaining Tag Life** and **Use Count Remaining**.

Step 3) Select an Option from the **Start Tag** dropdown menu:

1. **Immediately:** If selected, the logger will immediately begin Soaking Countdown and then begin recording.
2. **With Tag Button Press:** If selected, the logger will be placed in Standby mode and the ON/OFF button will need to be pressed on the logger in order to start the logger.
3. **Auto Awake Time:** A specific date and time can be entered. At the time selected the logger will start the Soaking Countdown and then begin recording.

Step 4) Select an Option from the **Stop Tag** dropdown menu:

1. **Manually:** Selecting Manually means that the logger can only be turned off by pressing the ON/OFF button on the logger.
2. **At Auto Sleep Time:** A specific date and time can be entered. At the time selected the logger will automatically stop recording.
3. **After Auto Record Time:** A duration of time can be selected. The logger will automatically stop after this duration of time has expired.

Step 5) Select **Start** while scanning or once a USB logger is connected. A green **Passed** sign will appear when the command is successful.



Logger Positioning

LOG-IC 360° loggers are compact and durable. They can be used whenever a complete temperature history or programmed alert is necessary. As a general rule, the best placement of a monitoring device is as close to the product being monitored as possible.

The following are examples of how to position loggers in shipment:

Standard Logger

Place the logger directly into the payload in a position with convenient access. This will help when the shipment reaches its destination and the logger information will need to be obtained. Product use -30°C to +75°C.



Dry Ice Logger

Do not place the rectangular ECM (electronic content monitor) directly into the dry ice. Only the black tip of the ribbon probe should be inserted into the dry ice payload. The ECM should be positioned away from the dry ice, in temperatures higher than -30°.



Steel Probe

Insert the steel probe into the center of the payload. The ECM should not be exposed to temperatures outside of -30°C to +75°C.

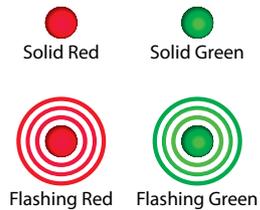




LOG-IC Display Features



The display lights may do any of the following:



* LOG-IC 360™ loggers are available in multiple models, but the features mentioned above are standard on every logger.



Turning LOG-IC Datalogger On

A logger must be in Standby Mode to turn on by pressing the ON/OFF button.

Press the **ON/OFF** button between your forefinger and thumb. There will be a momentary solid green light displayed in the Active display window indicating that you have successfully turned the logger on.





Turning LOG-IC Datalogger Off

In order to turn off a logger with a button press, the logger must be recording.

Press and hold the **ON/OFF** button between your forefinger and thumb for one full second. There will be two green flashes displayed in the Active display window indicating that you have successfully turned the logger off.



*This process can be done to all loggers.



Checking Status of USB Loggers

Press the **STATUS** button between your forefinger and thumb to check the current excursion status and logger mode.

Here are some examples of what may be displayed in the LED windows:



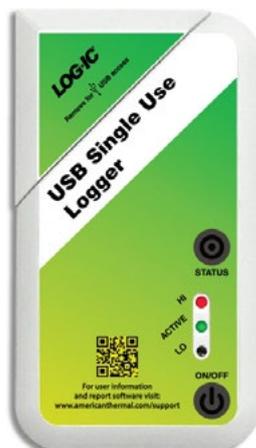
HI: None
Active: Solid Green
LO: None

The logger is recording.



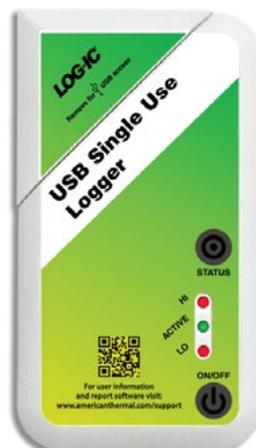
HI: None
Active: Solid Green
LO: Red

The logger is recording.
A LO excursion has occurred.



HI: Red
Active: Solid Green
LO: None

The logger is recording.
A HI excursion has occurred.



HI: Red
Active: Solid Green
LO: Red

The logger is recording.
Both a LO and a HI excursion has occurred.



HI: None
Active: Flashing Green
LO: None

The logger is not recording.
It is in OFF, STANDBY, or SOAKING mode.



LOG-IC Data Retrieval

Step 1) Install the latest version of the LOG-IC Software.

Step 2) Turn Logger Off:

1. To turn the logger OFF, press the ON/OFF for 2 full seconds. There will be a confirmation blink in the Active LED display when you have successfully turned the logger off.

Step 3) Retrieve Data from Logger:

1. Scan or connect the Logger.

Step 4) Review Data:

1. All tabs provide detailed information regarding temperature history to be used at the discretion of the customer.

Step 5) Generate PDF:

1. Select .
2. Select logger(s).
3. Select Report.
4. Save report according to your preferences.

Step 6) Save LDF (LOG-IC Data File):

1. Select .
2. Choose a name that can easily be identified in the event that you wish to open the file and add data from other loggers (i.e, Winter Study 2013, 1st Quarter Shipments, Refrigerated Goods Q2, etc.)



LOG-IC USB Logger Communication Interface

In order to receive data from or send commands to a LOG-IC 360 logger there must be a communication interface. There are two methods of communicating with a USB logger.

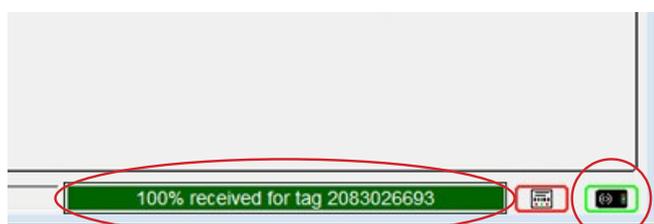
USB Connection

Connect the USB on the logger to a PC while running LOG-IC CertiScan software. A good connection will be indicated when the Logger icon in the lower right hand corner is outlined in green.



Scanning with a Log-ic Reader

Open the LOG-IC software and connect the reader. A good connection will be indicated when the Reader icon in the lower right hand corner is outlined in green. Hold the logger within 2 inches over the bullseye. The logger has successfully scanned when the green status bar at the bottom of the screen reaches 100%.



*It is not recommended to have a USB logger and a LOG-IC reader connected at the same time. Log-ic readers should not be positioned on or near metal as this causes interference.



FAQs

What type of battery is used? A standard coin cell Lithium manganese dioxide, non-rechargeable, non-lithium ion battery. The same type used in a wrist watch.

What is the memory of a LOG-IC 360? 4,000 logged data points; 53 histogram bins (each capable of storing 16 million temperature readings); 48 excursion records; Min/Max temperatures.

Is LOG-IC 360 programmable? Yes. The loggers can be programmed by the manufacturer or by the end user.

What is the temperature resolution? $\pm 0.1^{\circ}\text{C}$.

How is data downloaded/ retrieved from a LOG-IC 360 logger?

Every LOG-IC 360 has dual download capability. USB models can be downloaded using direct USB connection OR a LOG-IC RFID reader. NFC models can be downloaded via a NFC enabled Android based device OR a Log-ic RFID reader.

Do I need software in order to use a LOG-IC 360 logger? Yes, LOG-IC Certiscan software is required to program or download a logger using a PC. LOG-IC NFC Mobile App is required to use a NFC enabled, Android based device.

What do I need if I want to program a logger myself? PC, LOG-IC CertiScan software, USB Logger OR LOG-IC Desktop Reader.

How does an RFID Reader Differ from an Optical Sensor? An optical sensor has two parts. One eye, located in a docking station sees the other eye on the logger device and upon confirmation gives signal to download the data. LOG-IC 360 does not have an optical sensor. The LOG-IC RFID technology allows for immediate data transmission without contact to a logger. It is a close proximity read range but does not have to be lined up as precisely as an optical sensor.

What is NFC? Near Field Communication is a type of RF that provides a fast, very secure way to transmit data within close range from a logger to an NFC enabled device.

What is a Trigger Type? This refers to the amount of time that would elapse before an alarm is triggered. Any time over the Temp that is less than the Trigger Type would not be marked as an excursion.

What is an Event? The choices are Single (continuous) or Cumulative (accumulated). This determines how the alarms are calculated.

Is LOG-IC 360 reusable? Yes. LOG-IC 360 comes as Single Use, Multi-Use (26 uses) and 255 Use.

What is meant by Use Count? LOG-IC 360 is manufactured as single, multi or 255 use. If a single use logger is ordered, it can be turned on/off one time and then the logger should be disposed of. If a 26 use logger is ordered, it can be turned on/off 26 times.

How do you know how many uses are left on a logger? Each time a logger is downloaded, the logger ID # is displayed. For example: 2000014271-UC11. At the end the -UC11 means Use Count 11. This means that the logger is in its 11th use.

Is LOG-IC 360 Validated? Yes. Information on temperature accuracy and software validation is available upon request. A Certificate of Validation is provided with each logger order. The validation of the loggers is 3 Point NIST traceable.

How often does LOG-IC 360 need to be calibrated? ATI supports the claims for accuracy for the life of the logger. However, some regulatory agencies or internal SOP's may require annual verification of accuracy. These services can be provided.

What is the difference between a NFC and RFID? NFC is a type of RFID. LOG-IC 360 USB loggers are also RFID enabled, meaning they can communicate using a LOG-IC RFID Desktop reader. NFC is a type of RFID that is becoming common to Android Based devices (such as smartphones and tablets). This allows a customer to use a non-proprietary device that is already available to them to communicate with LOG-IC 360.

Is LOG-IC 360 passive or active RFID? LOG-IC 360 is semi-active. They are active because they have a battery. See below for more clarification:

- **Passive RFID:** A logger gets power when in the RF field of a reader. Therefore, the logger will only operate and communicate when in the influence of a reader. In this scenario, the logger is not recording a complete history, only sending one piece of information at the time of scan.
- **Semi-Active RFID:** A logger needs the RF Field of the reader to communicate but uses a battery to operate without the influence of the reader. This allows a logger, for example, to record temperature without the presence of the reader but will only use RF when influenced by a reader.
- **Active RFID:** A logger can both communicate and operate without a reader. An active RF logger will continue to try to communicate even when not in the influence of a reader. Therefore, RF signals are being sent on a continuum without the need for a reader.

What is the read range of LOG-IC RFID Desktop reader? Up to 2 inches.

What is the read range of NFC? Up to 2cm.

Can RFID operate with metal? Metal can interfere with RF signals.

Can RFID operate through thick foam, bubble wrap or gel packs? Yes, provided the reader is within the read range required.

What is the difference between LOG-IC PDF Report and Log-ic Software? LOG-IC PDF software is a light package that enables a user to generate/save a PDF report. The LOG-IC Software allows a user to manage a logger (configure, program on/off functions, export data in multiple formats, etc...)

Is there a limit to the number of licenses/seats for LOG-IC software? No, LOG-IC software is installed directly to a PC and there is no limit to the number of installations per customers.

Does LOG-IC App or Software support Client-Server Access? LOG-IC 360 loggers, in conjunction with the proper set up in software/app, will send data to a cloud based server using a XML format. ATI DataNow is available as a central repository of data for American Thermal Instruments customer. However, configuration is not currently server based.

Does LOG-IC 360 stop recording at time of scan? No, LOG-IC 360 can be scanned multiple times through its journey to the end destination, allowing for continuous/ uninterrupted monitoring through storage or distribution.

Does the LOG-IC 360 Mobile App provide the same functionality as Log-ic Software? The LOG-IC Mobile app provides complete temperature history at time of scan on the NFC device. There are also commands in the app that allow a user to upload data to a logger and turn the logger on/off. Currently, you cannot program or change the configuration of a logger using the LOG-IC 360 Mobile App.



Initial LOG-IC Management Software Setup Options

Once LOG-IC Software is installed, you can customise settings. This is optional and according to a user's preference.

Selecting Display Options:

Step 1) Go to Tools>Options>Display.

Step 2) Select your preferences:

1. Language, Temperature, and Time Zone are three display options that many customers choose to change if they prefer all users in their company to be consistent.

Step 3) Select **Apply** to save changes.

Selecting Export Options:

Step 1) Go to Tools>Options>Export.

Step 2) Select a Tab.

Step 3) Choose or enter options according to your preferences.

Step 4) Select **Apply** to save changes.

Repeat these steps for all Tabs that apply to you.

Log-ic Desktop and Handheld Reader Information/ Time Sync:

Step 1) Go to Tools>Options>Reader.

Step 2) Connect reader. If using a Handheld reader, make sure it is turned on and opened into an "L" shape.

Step 3) View reader versions in upper section of page.

Step 4) To synchronise reader time, select **Time Server** preference.

Step 5) Select **Sync**.



Assigning Label or Data to a LOG-IC Datalogger

This allows a user to rename a logger, making it easier to conduct a search or attach important information to the logger. Your logger must be in OFF mode in order to upload Tag Label.

Step 1) Select .

Step 2) Click **New Label Field**.

Step 3) Type label (max 16 alpha-numeric characters allowed).

Step 4) Click **Set Label** while scanning or connected.

Step 5) To search under Tag Label, right-click on the word **Tags** in the tag tree. Select **Show Tag Label**.

UPLOADING TAG DATA

Uploading tag data allows a user to associate important information to a logger (i.e., tracking or location information.) Your logger must be in OFF mode in order to upload Tag Data.

Step 1) Select .

Step 2) Click **New Data Field**.

Step 3) Type data (max 16 free-form characters allowed).

Step 4) Click **Set Data** while scanning or connected.

*These instructions are only used for Management Software.



Setting Up Email Alerts

In the CertiScan® software, go to **Tools> Options**. Under the **Export** option, choose **Email Alert** and select the options according to your preferences.

Selecting the **Use Email Alert Export Option** checkbox enables the email alert function.

Email Address

- **To:** Type in the email address of who will be receiving the email alert.
- **From:** Type in the email address of who will be sending the email alert.

SMTP Connection

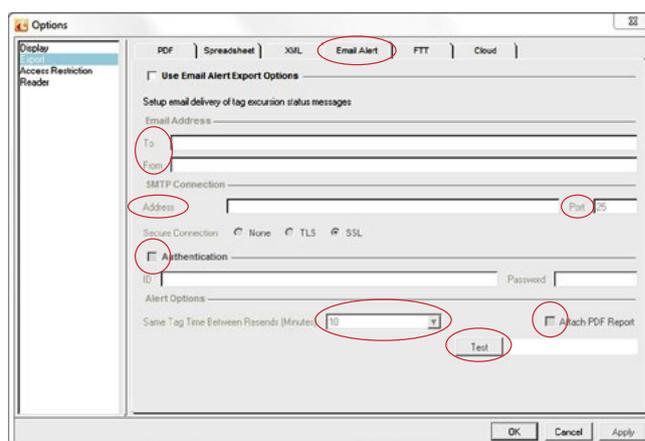
- Type in your SMTP **Address** and **Port** number.
- **Secure Connection:** Choose from the following types of secure connections: TLS, SSL or choose None for no secure connection.

Authentication

Select this checkbox to create an authentication ID and Password.

Alert Options

- **Same Tag Time Between Resends (Minutes):** Select the number of minutes from the drop down box for the amount of time that should pass before an alert is sent for the same tag.
- **Attach PDF Report:** Select this check-box to attach a PDF report to the alert option for resends.
- **Test:** Select this button to test the email alert option.



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