

961A/961B/961C

Temperature Humidity Logger

Users Manual

April 2023 (English)

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Fluke Corporation
P.O. Box 9090
Everett, WA 98206-9090
U.S.A.

Fluke Beijing Service Center
Rm301, 3/F., Building 7
No. 6, Jiuxianqiao Road, Chaoyang
Beijing 100015, P.R.C.

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Introduction

The 961A/961B/961C Temperature Humidity Logger (the "Product" or "Logger") is a battery-powered temperature and/or relative humidity measuring and logging instrument. The 961A/961B/961C are widely used in various aspects of warehousing and cold-chain logistics, including reefer containers, refrigerated trucks, cooler bags, cooling cabinets, refrigerators, laboratories, etc.

The 961A/961B/961C Temperature Humidity Logger features:

- Large, clear LCD display.
- Dual-button design preventing accidental touches.
- Front panel buttons allowing you to view device status and recording parameters, and you can view the data at any time without using a software.
- Multiple start and stop modes, various threshold settings.
- Two storage modes: Stop-When- Full and Circular Logging.
- Desktop software for setting parameters, reading and downloading data.
- USB interface for direct reading PDF report, no software required.
- Minimum logging interval of 10 seconds, instantaneous logging of rapid changes.
- 32,000 sets of data for long time logging.
- 1-meter drop tested, IP65 rated for dust and water resistance.
- Multiple formats for data export and reporting.
- Configuration software complying with US FDA 21 CFR Part 11

How to Contact Fluke

Fluke Corporation operates worldwide. For local contact information, go to our website: cn.fluke.com (Chinese) or www.fluke.com (English)

To register your product, view, print, or download the latest manual or manual supplement, go to our website.

Fluke Corporation
P.O. Box 9090
Everett, WA 98206-9090

+1-425-446-5500

fluke-info@fluke.com

Safety Information

General Safety Information is in the printed Safety Information document that ships with the Product and at www.fluke.com. More specific safety information is listed where applicable.

A **Warning** identifies conditions and procedures that are dangerous to the user. A **Caution** identifies conditions and procedures that can cause damage to the Product or the equipment under test.

Product Familiarization

The manual explains features for multiple models. Because models have different features, not all of the information in the manual may apply to your Logger. Use [Table 3](#) to understand the features of your Logger.

Standard Packaging

To prevent damage during shipment, please check the Product carefully and inform the carrier of any damage.

When unpacking the Product, please check the standard equipment listed in [Table 1](#) and other ordered parts listed on the packing list. If there is any shortage of parts, please inform the nearest Fluke Technical Service Center or the Service Center in place of purchase.

If you need to reship the Product, please use the original package. If the original package is not available, a new package can be ordered from Fluke according to the Product's model.

[Figure 1](#) and [Table 1](#) list the standard items that comes with the Product.

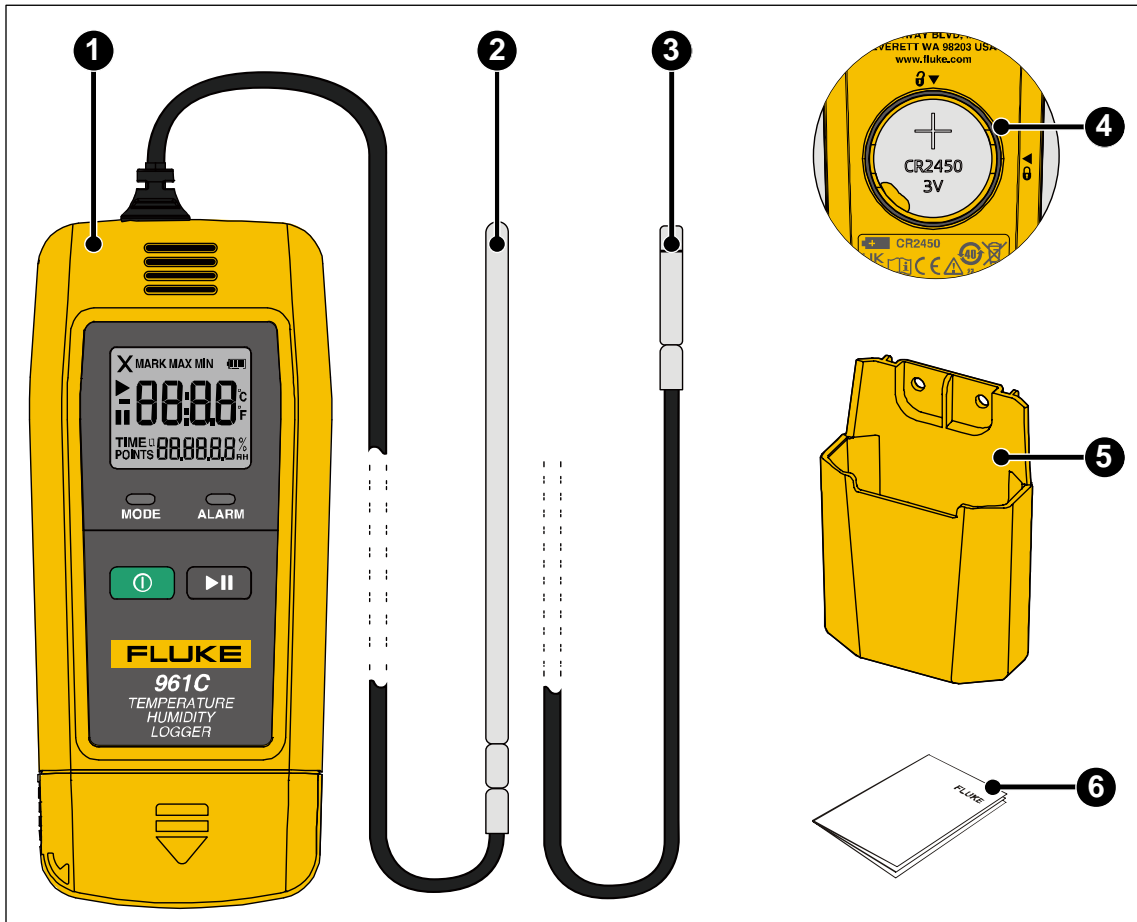


Figure 1. Standard Equipment

Table 1. Standard Equipment

Item	Description	961A	961B	961C
1	The Temperature humidity logger	1	1	1
2	External temperature probe		1	
3	External temperature humidity probe			1
4	CR2450 battery (installed)	1	1	1
5	Holder	1	1	1
6	Included documentation, including a Quick Reference Guide and Safety Information	1	1	1

Model Comparison Table

Table 2 lists functional comparison of different models.

Table 2. Model Comparison Table

Features	961A	961B	961C
Built-in sensor	√		
External sensor		√	√
Temperature measurement	√	√, ultra-low temperature	√
Humidity measurement	√		√
Sensor type	Digital temperature and humidity sensor	PT100 platinum resistance	Digital temperature and humidity sensor

Operation Features

This section describes the operation panel of the Product and the location and function of the display screen. Please read this section carefully before operating the Product.

This manual is based on the 961C. As different models have different features, some of the information in this manual may not be applicable to your product.

Components and Controls

The components and controls of the Logger are shown in [Figure 2](#), and [Table 3](#) lists the features and functions of each component.

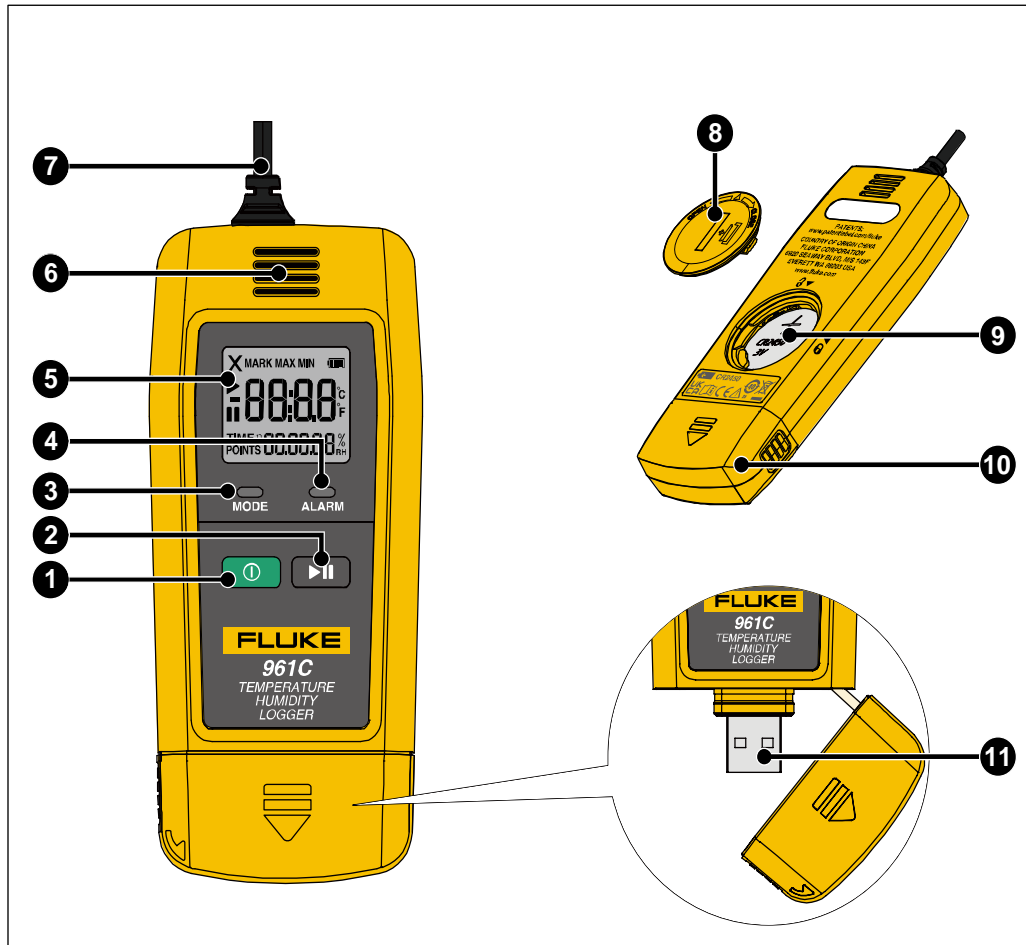











Figure 2. Product Features

Table 3. Product Features

No.	Item	Description
1	Power button	 <p>The power button has these functions:</p> <ul style="list-style-type: none"> - Power on/off: Push and hold for 2 seconds to turn the Logger on or off. See Turn On/Off the Logger for details. - Switch screens: Push briefly to switch between screens during standby or logging mode. See View the Live Measurements for details.
2	Log/Pause button	 <p>This button has these functions:</p> <ul style="list-style-type: none"> - Log/pause: Push and hold for 2 seconds to start or pause logging and it is related to logging settings. See Start/Stop Logging, Configure the Logger's Parameters and Pause/Stop logging for details. - Return to the Home Screen: push briefly to return to the Home Screen under any data screen during screens to view data. See View the Live Measurements for details.

No.	Item	Description
3	Mode status LED	 <p>The LED indicates different operating states or operational actions of the Logger.</p> <ul style="list-style-type: none"> - Power on: mode status LED flashes 3 times continuously, to indicate the Logger turned on successfully. See Turn On/Off the Logger. - Start logging: In the standby/pause state, when you push  for 2 seconds to start logging, the mode status LED flashes 5 times continuously, to indicate the logging function is started. See Start/Stop Logging. - Logging in progress: During logging, the Mode LED stays on (default), indicating that logging is in progress, depending on the settings of the Logger. See Configure the Logger's Parameters. <p>In addition, this button is used in conjunction with the alarm status LED  to indicate various operating states of the Logger, see Use the Logger for more details.</p>
4	Alarm status LED	 <p>Similar to the mode status LED, the alarm status LED also indicates different operating states or operational actions of the Logger:</p> <ul style="list-style-type: none"> - Power off: Alarm status LED flashes 3 times continuously to indicate the Logger is powered off. See Turn On/Off the Logger. - Pause logging: During logging, when you push  to pause logging, the alarm status LED flashes 2 times continuously, to indicate the logging is paused. See Start/Stop Logging. - Out-of-Limit alarm: During logging, when a temperature and/or humidity out-of-limit event occurs, the alarm status LED flashes once every 10 seconds (see Configure the Logger's Parameters for enabling flashing.), to indicate that one or more out-of-limit events occurred. - Switch screens: During logging, when you push  to switch the screen, the alarm status LED flashes once, indicating that the screen is switched successfully. See View the Live Measurements. <p>In addition, the alarm status LED is used in conjunction with the mode status LED  to indicate various operating states of the Logger, see Use the Logger for more details.</p>
5	LCD display	See Screen for details.
6	Built-in sensor	Built-in temperature and humidity sensor. (961A only)
7	External sensor	External temperature sensor (961B only) or external temperature/humidity sensor (961C only).
8	Battery compartment cover	See the Change the Battery for more details.
9	Battery	CR2450 button cell, installed.
10	protective cover for USB plug	See Connect to a PC for more details.
11	USB plug	See Connect to a PC for more details.

Screen

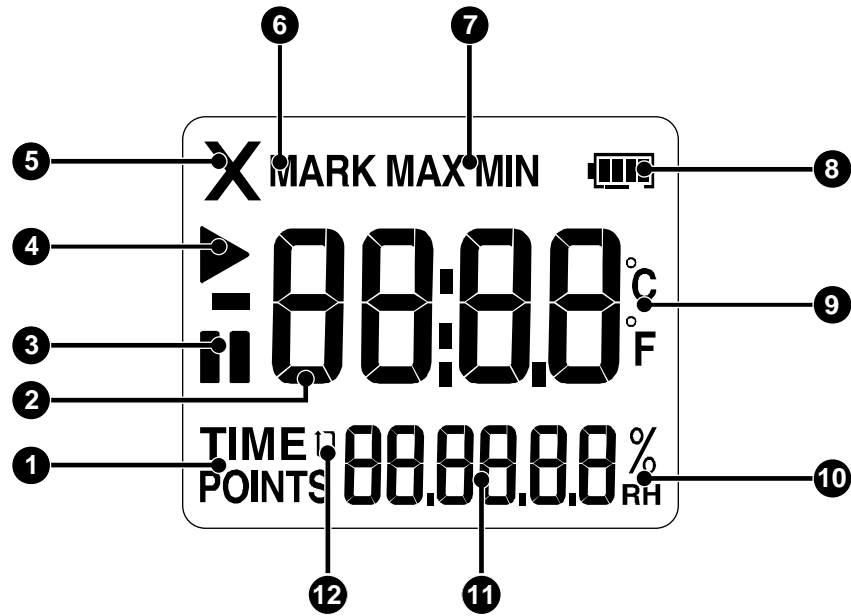










Figure 3. Screen


Table 4. Screen Items





No.	Indicator	Description
1	TIME / POINTS	<p>Current time/points</p> <p>The multi-purpose area can show the current time of the Logger or data points when switching the screen by pushing .</p> <ul style="list-style-type: none"> - TIME: The multi-purpose area shows current date and time of the Logger. - POINTS: The multi-purpose area shows the number of data points stored in the Logger.
2	-00:00	<p>Temperature</p> <p>Temperature value.</p> <p>The current measured value, the minimum or maximum value shows depending on the current selection. See item h in this table.</p>
3		<p>Pause indicator</p> <p>Shows that logging is paused:</p> <ul style="list-style-type: none"> - No display: Logging is not started or is in progress, depending on the status of the logging indicator  on the screen. - : The logging is paused. The logging can be restarted as needed, depending on the settings. See Use the Logger for more details.
4	▶	<p>Logging indicator</p> <p>Shows the current status of logging.</p> <ul style="list-style-type: none"> - No display: Logging is not started or is paused, depending on the status of the logging icon  on the screen.

No.	Indicator	Description
		-  flashing : The current logging mode is Timed Start or Delayed Start mode, and the Logger is waiting for the trigger to start logging. See Use the Logger for more details.
5		Alarm indicator The Logger can be set with up to 3 high temperature alarms and 2 low temperature alarms, as well as 2 humidity alarms. When the measured temperature and/or humidity exceeds the set limit, an alarm indicator X is shown on the screen.
6	MARK	Event mark indicator When marking an event, the indicator shows briefly to indicate that an event is marked successfully.
7	MAX / MIN	MAX/MIN indicator When MAX or MIN shows on the screen, the maximum or minimum temperature and/or humidity value is being shown.
8		Battery level
9	°C / °F	Temperature unit
10	% RH	Humidity
11	88.88.88	Multi-purpose area Shows the humidity value, date, or data points when the screen is switched with the  . See View the Live Measurements for details.
12		Circular logging indicator This symbol is shown when the number of logged points is greater than or equal to the maximum capacity (32000).

Basic Operation

Turn On/Off the Logger

Use the multi-function button  on the front panel to turn the Logger on and off.

- **Power on:** Push and hold  for 2 seconds, or until the mode status LED  to flashes 3 times, then release the button.
- **Power off:** Push and hold  for 2 seconds, or until the alarm status LED  to flashes 3 times, then release the button.

Start/Stop Logging

The Logger supports multiple ways to start and stop logging. The start and stop mode can be set independently.


Start Mode:





- Immediate Start (via the FlukeLog software)
- Press Button
- Timed Start (via the FlukeLog software)

Stop Mode:

- Press Button
- Use Software

For more information on various start and/or stop modes, please see section [Use the Logger](#).

The Logger default is to push  to start or stop logging, with no start delay. To start and stop logging:

- **Start logging:** In the standby or stop state, push and hold  for 2 seconds, wait for the mode status LED  to flash 5 times, then release the button to start logging.
- **Stop logging:** When the Logger is logging, push and hold the  for 2 seconds, wait for the alarm status LED  to flash 2 times, then release the button to stop logging.

View the Live Measurements

During logging, you can view the live measurements through the buttons on the front panel.

On the Home Screen of the Logger, briefly push  each time to display the live measurements in the following order. On any screen, briefly push  to return to the Home Screen.

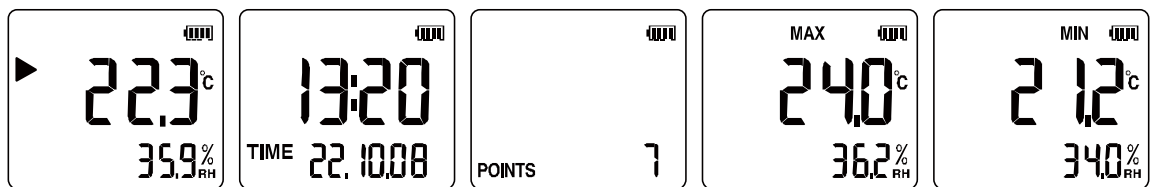


Figure 4. Measurement Screen

Connect to a PC

Note

Please turn the Logger on first before connecting it to a PC. When the Logger is connected to a PC via the USB plug, it can not be powered on or off.

1. As shown in [Figure 5](#), hold the Logger with one hand with your thumb against the anti-skid part on the side of the protective cover, and push the protective cover 45° upward to the left.
2. When you feel the cover is obviously loose, and the cover is completely separated from the USB plug, then tilt the cover to the right side of the Logger to expose the USB plug.

3. Plug the Logger directly into the PC's USB port via the USB plug.

The mode status LED **MODE** and alarm status LED **ALARM** on the panel of the Logger stay on, and "USB" shows on the screen, indicating successful connection.

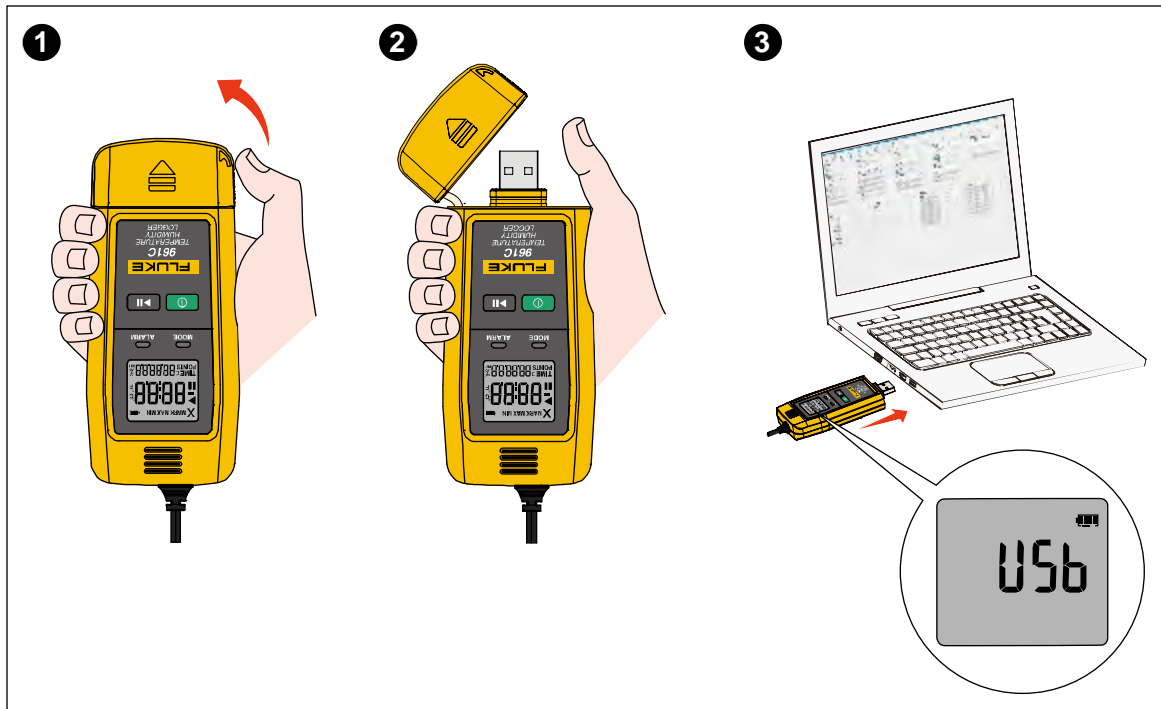


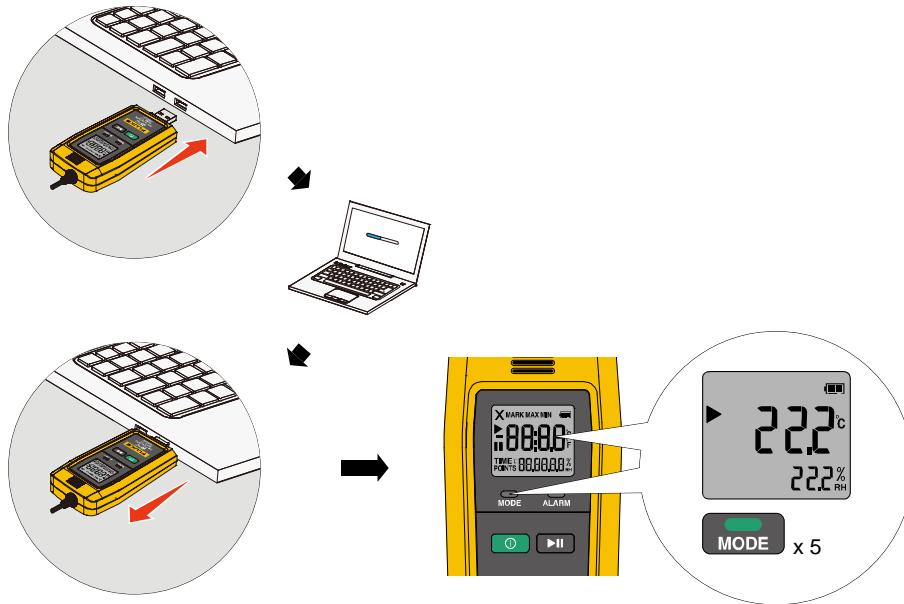
Figure 5. Use the USB Plug

Use the Logger

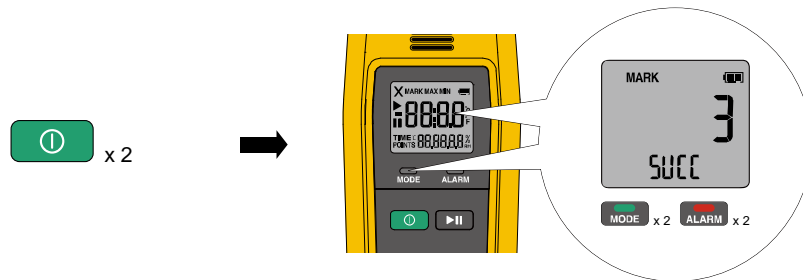
To log temperature and/or humidity:

1. Configure the Logger's parameters.
2. Start logging.
3. Mark events (optional).
4. Pause/stop logging.
5. Download data.
6. Repeat start.

1 - 2, 6



3



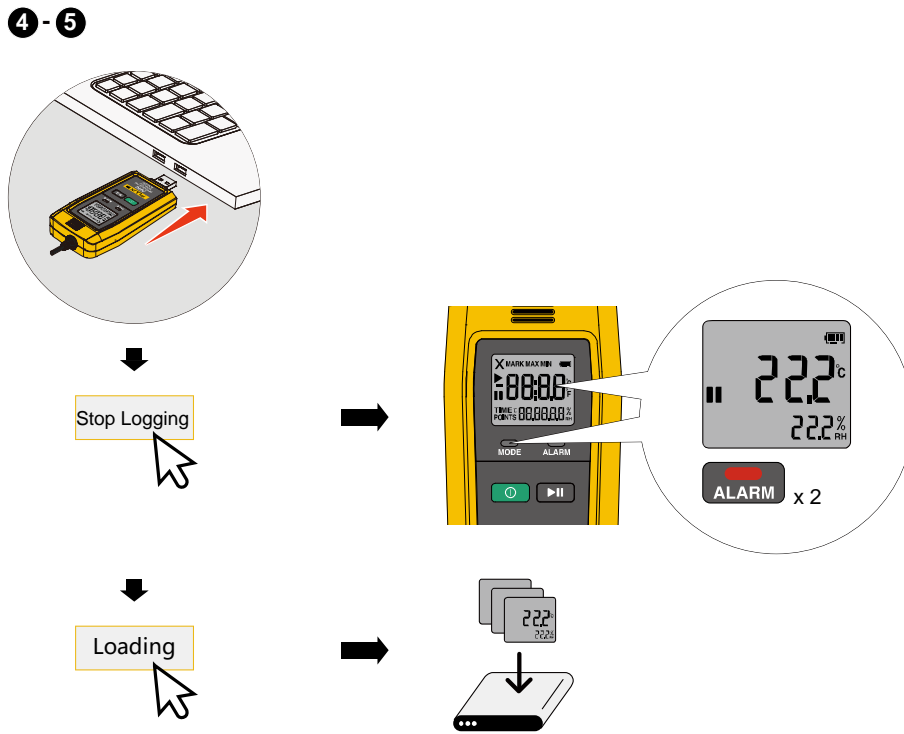


Figure 6. Use the Logger

Configure the Logger's Parameters

Configure the Logger via the FlukeLog software before using it for the first time or for repeated use, unless the Logger is used exactly as the default configuration.

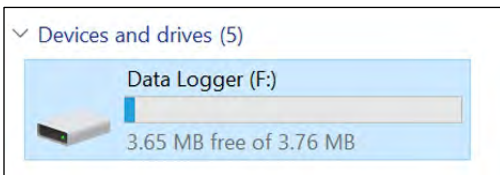
See [Factory Defaults](#) for the factory default configuration of the Logger.

See [FlukeLog Software](#) for more information on the FlukeLog software.

To configure the Logger's parameters:

1. Connect the Logger to a PC according to [Connect to a PC](#).

A File Explorer window appears on the PC, where a new drive icon is shown with "Data Logger" below or next to it, indicating that the Logger is properly connected to the PC, as shown below.

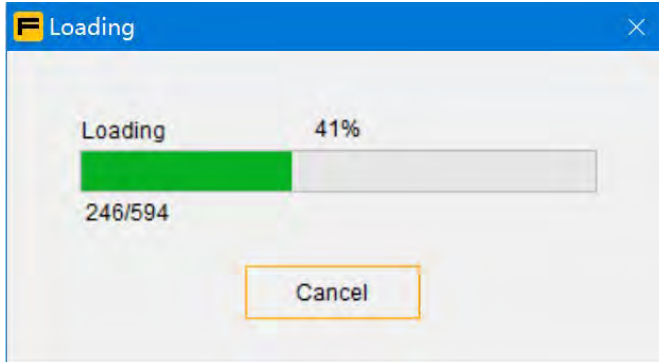


Note

Operation on a PC can vary depending on the operating system. Refer to the specific information on the screen for operation.

2. Start the FlukeLog software on the PC.

The FlukeLog automatically detects the connected Logger and automatically starts reading and downloading data, as shown below.



Wait until the FlukeLog completes downloading data and automatically closes the Download dialog box.





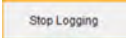


3. On the toolbar of the FlukeLog software, click  to enter the parameter setting window.
4. In the Parameters window of the FlukeLog software, set the logging parameters as required. The parameter settings are shown in [Table 5](#).

Table 5. Parameter Settings

Parameters	Description
Logging Interval	<p>The interval at which the Logger logs temperature and/or humidity data is set in the format of hour:minute:second.</p> <p>Range: 10 seconds to 24 hours.</p> <p><i>Note</i> If this option is checked, the software automatically unchecks the Logging Duration option and automatically calculates the length of logging time based on the set logging interval and the Logger's capacity, which shows below the Logging Duration option.</p>
Logging Duration	<p>Select the total time length of logging in days.</p> <p>Range: 6 to 180 days.</p> <p><i>Note</i> When checked, the Logger automatically determines the Logging Interval based on the capacity of the Logger and shows the interval below the Logging Interval option.</p>
Trip Number	<p>Set a custom number for the logging. The number contains a maximum of 7 digits, letters, and underscores (_).</p>
Trip Description	<p>Use to customize the trip description for reference.</p>

Parameters	Description
Start Mode	<p>The Logger has these start modes.</p> <ul style="list-style-type: none"> - Immediate Start: Logging starts immediately after the Logger is unplugged from the PC. - Press Button: After the Logger is set up, the Logger is in standby until you push  to start logging. See Start/Stop Logging. <p>In this mode, if the Start Delay is set, the logger will not start logging until a specified time is elapsed after you push . See Start Logging for details.</p> <ul style="list-style-type: none"> - Timed Start: Specify a start time in the Start Time dialog box and the Logger automatically starts logging at that time.
Stop Mode	<p>The Logger has these stop logging modes.</p> <ul style="list-style-type: none"> - Press Button: Push  to stop logging. - Use Software: After connecting the Logger to a PC, use  in the Summary window of the FlukeLog software to stop logging. <p style="text-align: center;"><i>Note</i></p> <ul style="list-style-type: none"> • If Use Software is enabled, you can use the software to stop logging under any circumstances. • If Press Button is not checked, you cannot stop logging by pushing the front panel button.
Start Delay	<p>Sets a delay time after which the Logger automatically starts logging after you push .</p> <p>This setting is only available when the start mode is Press Button.</p> <p>The start delay ranges from 0 to 23:50.</p>
Timing Start Time	<p>Specifies the time at which the Logger will automatically start logging.</p> <p>This setting is only available when the start mode is Timed Start.</p> <p>The Timing Start Time must be at least 1 minute later than the current system time.</p>
Set Password	<p>To protect the Logger's data and settings, you can set a 6-digit password, which can include numbers, letters, and symbols.</p> <p>When the password is enabled, you must provide a password to download data and change settings via the FlukeLog software.</p> <p style="text-align: center;"><i>Note</i></p> <p style="text-align: center;"><i>Reading reports in PDF format directly from the Logger requires no passwords. See section Download Data.</i></p>
Time Zone	<p>Select the time zone used for the Logger's clock.</p> <p>The Logger automatically sets the internal timer when a time zone different from the PC clock is selected.</p>
Temporary PDF	<p>The Logger is enabled or disabled to automatically generate temporary PDFs when it is plugged into a PC.</p> <ul style="list-style-type: none"> - Enable: When the Logger is connected to a PC, a report is automatically generated in PDF and stored in internal memory. You can read/copy the PDF file directly through the PC's File Explorer. - Disable: The Logger does not generate reports in PDF.
PDF Language	<p>The Logger supports PDF reports in both Chinese and English.</p>

Parameters	Description
Circular Logging	<p>Whether to allow the earliest data to be overwritten and to continue logging when the memory is full.</p> <ul style="list-style-type: none"> - Enable: If the Logger is full before the stop logging condition is reached, it will automatically overwrite the earliest data and continue logging. - Disable: The Logger automatically stop logging data when it is full.
Correction (Temperature)	<p>Temperature correction value.</p> <p>If it is not zero, the Logger will add this correction value to the measured temperature, the result will be the temperature measurement value.</p> <p>Correction value range: -5 to +5 in the currently selected temperature unit.</p>
Correction (Humidity)	<p>Humidity correction value.</p> <p>If it is not zero, the Logger will add this correction value to the measured humidity, the result will be the humidity measurement value.</p> <p>Correction value range: -20 to +20, in %.</p>
LED flashing	<p>Whether the mode status LED  flashes during logging.</p> <ul style="list-style-type: none"> - Enable: The mode status LED flashes once every 10 seconds during logging. - Disable: The mode status LED does not flash during logging.
Alarm	<p>Set high/low temperature and high/low humidity alarms.</p> <p>The Logger supports up to 3 high temperature alarms and 2 low temperature alarms, as well as 1 upper limit and 1 lower limit humidity alarm.</p> <ul style="list-style-type: none"> - No Alarm: When this option is checked, the alarm is disabled, and the Logger will not mark alarm events. - Multiple Alarms: You can set 1 or more alarm limits. Check the checkbox in the Alarm column to activate the corresponding alarm settings. <p>Both the upper and lower limit humidity alarms must be checked or unchecked at the same time.</p> <p>The first set of temperature upper/lower limit alarms must be checked or unchecked at the same time.</p> <p>The temperature limit alarms must be selected from low to high according to the number. For example, you cannot select H3 (temperature) without selecting H2 (temperature) first.</p> <p>When an alarm function is activated, the settings are:</p> <ul style="list-style-type: none"> - Alarm Threshold: upper or lower limit of temperature/humidity. Set the alarm threshold to any value between the lower and upper limits of the Logger's temperature/humidity range. - Alarm Type: Select Single or Cumulative. Single: Calculate the time of single temperature/humidity overlimit. The alarm is triggered when the time for a single overlimit is not shorter than the time specified in Alarm Delay. Cumulative: Accumulate the time when the temperature/humidity threshold is exceeded. The alarm is triggered when the accumulated time is not shorter than the time specified in Alarm Delay. - Alarm Delay: Specify a time value, and when the single or accumulated overlimit time is not shorter than the time value, an alarm is triggered.



Factory Defaults

The default value of the Logger before delivery is shown in [Table 6](#):

Table 6. Defaults Settings

Parameters	Defaults	Parameters	Defaults
Screen Display Time	Keep on	Set Password	None
Logging Interval	15 minutes	Start Delay	0
Time Zone	UTC +8:00	PDF Language	English
Circular Logging	Enable	Press Button to Stop	Enable
Start Mode	Press Button	Temperature Unit	°C
Temporary PDF	Enable	Alarm Mode	No alarm

- Click **Save and Clean up logs** in the lower left corner of the Parameters window. Click **Yes** in the pop-up dialog box.
- Wait for the software to finish setting the Logger and click **OK** in the pop-up dialog box **Parameters Set Successfully**.

The mode status LED  and alarm status LED  will flash twice at the same time, indicating that the setting is successful.


- Disconnect the Logger from the PC.


Start Logging

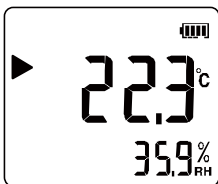
After the Logger is disconnected from the PC, the Logger will start logging depending on the **Start Mode** settings.

Immediate Start

In this start mode, the Logger starts logging immediately after disconnecting from the PC.

The mode status LED  on the front panel of the Logger flashes 5 times, indicating that the logging is successfully started.

The Logger's Home Screen then displays the logging indicator  and the current temperature and humidity measurements, as shown below.



Press Button

Note

If the Logger is turned off, turn on the Logger by following the instructions in [Turn On/Off the Logger](#).

In Press Button start mode, the Logger enters the standby state after disconnecting from the PC and the current measured temperature and/or humidity shows on the Logger's screen, as shown below.




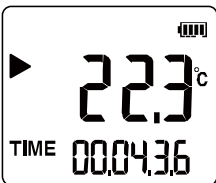
Start logging according to the instructions in [Start/Stop Logging](#). There are 2 cases below.

- The Start Delay is set to 0 (no delay)

The Logger starts logging immediately with the logging indicator ►, the current temperature, and humidity measurements shown on the Home Screen.

- The Start Delay is set to a non-zero value.

When push  to start logging, the Logger counts down from the set start delay time. **TIME** shows on the screen and the elapsed time shows in the multi-purpose display area, while the logging icon ► flashes.



When the countdown is over, the Logger automatically starts logging and shows the Home Screen of logging.


Timed Start



In this start mode, the Logger automatically calculates the time from the start time set after disconnecting from the PC and starts counting down. The screen display and subsequent operation are the same as that in the Press Button mode with non-zero delay time, see descriptions above.

Mark Events (Optional)

During logging, you can mark the current temperature/humidity event for future reference.

To mark events:

1. Under any data screen, push  twice quickly.

2. LED  and  flash twice rapidly at the same time to indicate events are marked successfully.

The Logger screen briefly shows the symbol **MARK**, the success icon **SUCC** and the number of data points currently marked, as shown below.



3. The Logger then automatically returns to the Home Screen and continues logging.

Note

If you mark the same data point multiple times, the Logger shows the success indicator, but the number of data points marked does not increase.

Pause/Stop Logging

The Logger has the stop modes: **Press Button** and **Use Software**. See [Configure the Logger's Parameters](#) for details.



Press Button

Follow the instructions in [Start/Stop Logging](#) to pause or stop logging.

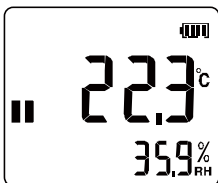
Note

*If **Press Button** is not checked, you cannot stop logging with the front panel buttons.*

Use Software

1. Follow the instructions in [Connect to a PC](#) to connect the Logger to a PC and start the FlukeLog software.
2. In the Summary window of the FlukeLog software, click  in the upper right corner of the window to stop logging.
3. The alarm status LED  flashes twice, indicating the logging is stopped successfully.

When logging is paused, the Logger screen shows the pause icon **||**, along with the current measured temperature and/or humidity, as shown below.



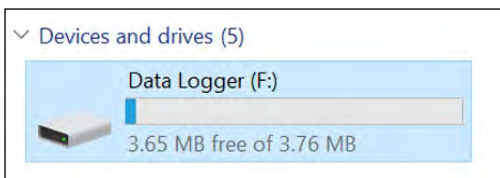
Download Data

The Logger can be connected to a PC with USB port to download data either when logging is stopped or during logging.

You can read data from the Logger regardless of whether the FlukeLog software is installed.

Download Data Without Using the Software

1. Connect the Logger to a PC according to the description in [Connect to a PC](#).
2. A File Explorer window usually pop ups on the PC. A new drive icon shows with Data Logger below or next to it, to indicate that the Logger is properly connected to the PC, as shown below.



3. Open the drive and read or copy the PDF file directly.


The PDF file is named with the format **Logger Serial Number_Trip Number**. The report contains detailed information and data of logging.

Note

*If the Logger's **Temporary PDF** setting is set to **Disable**, the Logger will not automatically generate reports in PDF. See [Configure the Logger's Parameters](#) for more details.*

Download Data using the FlukeLog Software

1. Connect the Logger to a PC according to the description in [Connect to a PC](#).
2. Start the FlukeLog software on the PC.

The FlukeLog automatically detects the connected Logger and automatically starts reading and downloading data. Alternatively, click  on the toolbar of the FlukeLog software to actively download data.

3. Perform data analysis, export, and generate reports by referring to the FlukeLog software user manual.

Repeat Start

After the data is downloaded, the parameters can be reconfigured to start next logging. See [Configure the Logger's Parameters](#).

Logging can also be restarted directly through the button on the front panel when the Logger is paused. See [Start Logging](#).

FlukeLog Software

Use the FlukeLog Logger Data Management Software for data analysis and management of the Logger.

Use the FlukeLog software to:

- Set the parameters of the Loggers.
- Automatically/manually read and store the data from the Loggers.
- Display temperature and/or humidity data in data tables, graphs, and provide statistical information.
- Store and view the historical data from the Logger.
- Generate data reports in multiple formats.
- Exchange data with other FlukeLog software users.

Download and Install the FlukeLog Software

On your PC, go to www.fluke.com to search FlukeLog.

1. Download the FlukeLog software to your PC according to the instructions on the Product page.
2. On your PC, follow the instructions to install the FlukeLog software. (Administrator privileges are required for the installation.)
3. Restart the PC when installation is complete.

For more information about the FlukeLog software, refer to the instructions for the software.

Maintenance

There are no parts to repair and maintain inside the Product, and no special maintenance is needed, only daily cleaning is required.

Clean the Case

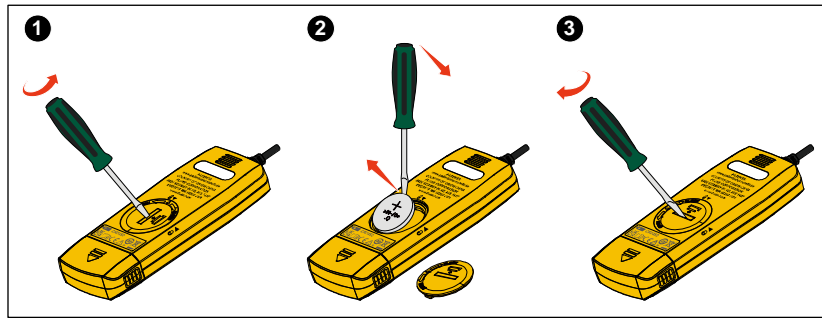
Clean the case with a damp cloth and a weak soap solution.

Caution



To avoid damage to the Product, do not use abrasives, isopropyl alcohol, or solvents to clean the case.

Change the Battery

The Logger is powered by a CR2450 type lithium-ion battery. When the battery indicator on the screen shows low power, promptly replace the battery.



To change the battery:

1. Turn the Logger off and place it face down on a firm, flat table.
2. Align a flat screwdriver or a coin with the groove on the battery compartment cover, then rotate the cover 90 ° in the reverse direction (to OPEN direction) so that the arrow on the cover aligns with the unlock mark  on the Logger case. Then remove the battery compartment cover.
3. Gently pry the battery along the notch in the battery card slot with a screwdriver, lifting one side of the battery first, and then removing it completely.
4. Install a new battery and reinstall and secure the battery compartment cover in the reverse order so that the arrow on the cover is aligned with the lock mark  on the Logger case.

Note

Every time the battery is replaced, you must connect the Logger to a PC and start the FlukeLog software to reconfigure the parameters to synchronize the time on the Logger. Otherwise, an error message rECF (reconfiguration) will show on the Logger's screen.

 Caution

Do not incinerate the Product and/or the battery.

Product Disposal

Dispose of the Product in a professional and environmentally appropriate manner:

- Delete personal data on the Product before disposal.
- Remove batteries that are not integrated into the electrical system before disposal and dispose of batteries separately.
- If this Product has an integral battery, put the entire Product in the electrical waste.

Specifications

General Specifications

	961A	961B	961C
Temperature			
Operating	-30 °C to 70 °C (the Logger)		
Storage	-30 °C to 70 °C (the Logger)		
Altitude			
Operating	2 000 m		
Storage	12 000 m		
Relative Humidity			
Operating	0 % RH to 100 % RH, non-condensing		
Storage	<75 % RH		
Power Supply			
Battery Type	CR2450 x 1		
Battery Life	1 year (logging @ 15 min logging interval, 25 °C)		
Safety	IEC 610101-1, Pollution Degree 2		
Dimensions (L x W x D)	107 mm x 47 mm x 17 mm (No external probe)		
Weight	60 g (with battery)	88 g (with battery)	78 g (with battery)
IP Rating	IEC 60529: IP65		
Electromagnetic Compatibility (EMC)	IEC 61326-1: Basic Electromagnetic Environment; CISPR 11: Group 1, Class A		
<p>Group 1: Equipment intentionally generates and/or uses conductive-coupled RF energy, which is necessary for its internal operation.</p> <p>Class A: Equipment is suitable for use in all establishments other than domestic and those directly connected to a low-voltage power supply network that supplies buildings used for domestic purposes. There may be potential difficulties in ensuring electromagnetic compatibility in other environments due to conducted and radiated disturbances.</p> <p>Caution: This equipment is not intended for use in residential environments and may not provide adequate protection to radio reception in such environments.</p>			

Detailed Specifications

	961A	961B	961C
Sensor Type	Built-in	External	External
Temperature Measurement			
Range	-30.0 °C to 70.0 °C	-85.0 °C to 150.0 °C	-40.0 °C to 85.0 °C
Accuracy	±0.4 °C	±(0.3 + 0.005 x reading) °C	±0.4 °C
Resolution	0.1 °C	0.1 °C	0.1 °C
Humidity Measurement			
Range	0 % to 100.0 % RH	NA	0 % to 100.0 % RH
Accuracy	±3 % RH (20 % to 80 % RH @ 25 °C); ±5% RH (<20 % RH, > 80 % RH @ 25 °C)	NA	±3 % RH (20 % to 80 % RH @ 25 °C); ±5 % RH (<20 % RH, >80 % RH @ 25 °C)
Resolution	0.1 % RH	NA	0.1 % RH
Date Storage	32 000		
Logging Interval	10 s to 24 hr		
Start Mode	Press button or use software		
Stop Mode	Press button, use software or stop-when-full		
Alarm Threshold	Up to 3 upper temperature limits and 2 lower temperature limits 1 upper humidity limit and 1 lower humidity limit		
Alarm Type	Single / Cumulative		
Report Format	PDF (direct read via a PC), Excel and TXT (via PC software)		

