

Testo Saveris 2 Configuration

Introduction

This guide will explain how to create a **testo Saveris 2 Cloud account** and connect data loggers. **Information for minimal system requirements are at the end of this document. Ensure that the system meets the requirements. Please follow the setup instructions in order. The cloud account must be created first before turning the data logger on. Once the account has been setup, turn on the data logger and connect it to a network. Troubleshooting, FAQ, and system behaviors are covered in this document.**

First Steps



Register your testo Saveris 2 or testo 160

1. On your PC, Go to <https://americas.saveris.net/>
2. Use the Register Now button.
3. You will receive confirmation mail from no-reply@testo.services.
(Note: Check your Spam/Junk folder if you do not receive the confirmation)
4. Confirm your email address within the confirmation mail.
(Note: User has 48 hours to confirm their email address to be fully registered)
5. Log back to the account.

Setting up the testo 160

1. Pull tab from the battery compartment, on the back of the testo 160.
2. Check front display for Battery Icon (if not replace with fresh batteries)
3. Mount with Screws/Anchors/ Magnetic Mounting Plate.
(sold separately at Testo, Part Number: 0554 2001)



Logger Configuration Methods

To activate Advanced License billing, install first all loggers under the Basic License.

To activate an Advanced License, click at the link at your Cloud account page and license fees will be auto calculated.

Cloud account Setup Assistant

1. Use the USB to connect logger to the computer when logged on to Saveris 2 Cloud account.
2. On your computer, select a logger icon with + sign at the upper right corner of the page. Ignore the QR code App suggestion. Press the Connect the Wi-Fi logger link.
3. When the form is filled out save it to the Saveris 2 data logger.
4. Follow steps, and at the last step don't wait for the Cloud icon on the logger. Disconnect USB from the Task Bar, then disconnect cable and logger will start connecting to the Wi-Fi and the Cloud account.

Notes:

If the 160 IAQ does not connect, press the reset button once and this should allow the logger to connect.

USB must be safely ejected from the computer. Failure to safely eject will corrupt the embedded file on the logger.

Logger Configuration Methods (Continued)

USB Method (for connection to PC using Microsoft Windows OS Only)

1. Copy Account ID from your testo Saveris 2 Cloud account (Configuration / Account ID)
2. Logger USB connection – open **WifiConf.pdf** file
3. Insert account ID to the form field, fill in name of the network (SSID) and network password. Save configuration (green button) to the logger using Windows File Explorer. Make sure that .xml file is saved to the Saveris 2 drive, not any other folder on your computer.
4. Disconnect USB from the Task Bar, then disconnect cable.
5. A steady Cloud icon on the display indicates connection to the Cloud website.

Note:

USB must be safely ejected from the computer. Failure to safely eject will corrupt the embedded file on the logger.

Hot Spot Mode

1. Log on to the testo Saveris 2 Cloud account and copy the Account ID (Configuration/Account ID), close the web page.
2. Make sure the Wi-Fi adapter is turned on, and the Ethernet cable is pulled out.
3. Press the logger button for more than 3 seconds to get LED into continuous green blinking. CONF message on the logger display confirms the hot spot connection.
4. On the computer at Wi-Fi connections connect to Testo Saveris 2 network.
5. Open browser and enter 192.168.1.1 at the URL line.
6. Fill the form and save, there will be confirmation message on the logger screen.
7. A steady Cloud icon on the display indicates connection

Note:

USB must be safely ejected from the computer. Failure to safely eject will corrupt the embedded file on the logger.

Global Temperature Settings

To override auto selected Country temperature units setting go to User / User Settings and select the temperature unit from the drop-down selection.

Logger removal / E-52 error

- The E-52 error shows that the logger is presently attached to another account.
- To remove the logger from its original account, log on, go to Configuration / Wi-Fi data logger, select logger Details in the right column.
- Press the Deactivate button at top of the page.
- Scroll to the bottom of the page and press the red Remove Data Logger button.
- Log out of the account and log back, and if the logger shows up grayed out at the Dashboard listing, click the arrow at the left to delete associated data.
- Press shortly the logger button to complete transfer of the delete information.
- The logger is now free to be attached to another account.

Minimum System Requirements

testo Saveris 2 / testo 160 work only on 2.4 GHz Wi-Fi. Be sure to select a 2.4 GHz Wi-Fi network.

Note: In most institutions, IT permission to install is required, especially on high security networks.

NOTE: The MAC Address for the device can be found on the back label. Please keep the MAC Address available.

The following browser and router ports must be open:

- Browser (Microsoft Edge, Firefox, Google Chrome, Safari): MQTT Port 443 (https)
- Router:
 - Port 8883 TCP Secure MQTT (Message Queue Telemetry Transport over SSL)
 - Port 123 UDP Network Time Protocol (NTP)
 - Port 53 TCP Domain Name System
 - Port 53 UDP Domain Name System

FAQ

Can the Wi-Fi data logger be connected to the PC using any USB cable?

- We recommend that you use the USB cable supplied with the Wi-Fi data logger to guarantee stable data transmission. Longer USB cables are suitable for the power supply only.

Can the Wi-Fi data logger also be used in networks with WPA2 Enterprise encryption?

- testo 160 data loggers can be used in networks with the following WPA2 Enterprise encryption methods.
WPA2 Enterprise: EAP-TLS, EAP-TTLS-TLS, EAP-TTLS-MSCHAPv2, EAP TTLS-PSK, EAP-PEAP0-TLS, EAP-PEAP0-MSCHAPv2, EAP-PEAP0-PSK, EAP-PEAP1-TLS, EAP-PEAP1-MSCHAPv2, EAP-PEAP1-PSK, WPA Personal, WPA2 (AES), WPA (TKIP), WEP

The XML configuration file is not being applied by the Wi-Fi data logger, what can I do?

- Depending on the operating system, there may be difficulties with the data transfer if the configuration file name has been changed. Leave the default file name.

The humidity sensor has been stored at a high temperature (> 30 °C) and in very high humidity (> 80% RH) for a long period of time, what can I do?

- The sensor requires a long period of time to regenerate itself again. This process can be accelerated by storing the sensor in a well-ventilated location at a high temperature(> 30 °C) and in low humidity(< 20% RH) for at least 12 hours.

The Wi-Fi data logger's wireless connection to the access point was interrupted, what can I do?

1. Press the control key on the Wi-Fi data logger to start searching for a Wi-Fi connection manually.
2. Change the alignment or position of the Wi-Fi data logger or the access point (Wi-Fi router).

Status LED signals

Signal	Description
LED flashes green every 30 seconds (IAQ)	Normal state
LED flashes green at one-second intervals (for 5 min, then 1 long red flash)	Configuration mode (hotspot) - press button > 3 sec
LED flashes green every 200 ms (for 10 seconds)	Configuration app: During hotspot mode press button < 3 sec
LED gives 2 red flashes	Connection to Wi-Fi failed (incorrect SSID, Incorrect SSID password, incorrect account ID or incorrect account password, attempt to log the 160IAQ into the testo Saveris 2 Cloud.
If XML is correct, LED gives 1 long green flash If XML is incorrect, LED gives 3 red flashes	Configuration via USB/PDF
LED gives 2 green flashes	Connection to Wi-Fi and Cloud successful
LED gives 1 long red flash	Alarm activated due to limit value violation
LED gives 5 green flashes	Reset Wi-Fi data logger to factory settings Press key > 20 sec
LED gives 1 green flash (measurement data collected)	Send measurement data to the testo Saveris 2 Cloud (website): press key < 3 sec
LED gives 4 red flashes	Batteries expired
LED flashes alternately green and red	Firmware update via USB or wireless

Error Codes

The error codes can be read out using a web browser via a smartphone/tablet or PC. Press the probe button for 3 seconds. Then enter the following IP address 192.168.1.1 in the web browser.

The Wi-Fi data logger (160 IAQ) is displaying error code E03, E04, E05 or E09, what can I do?

- An error has occurred in the Wi-Fi data logger. The error will automatically be corrected by the firmware of the Wi-Fi data logger. After a few seconds, the error code should no longer be displayed, you do not need to do anything.

The Wi-Fi data logger (160 IAQ) is displaying error code E12, what can I do?

- The configuration file WifiConfig.xml indicates an error. Use the Quick Start Guide to create a new configuration file and save this on the Wi-Fi data logger.

The Wi-Fi data logger (160 IAQ) is displaying error code E12, what can I do?

- The configuration file WifiConfig.xml indicates an error. Use the Quick Start Guide to create a new configuration file and save this on the Wi-Fi data logger.

The Wi-Fi data logger (160 IAQ) is displaying error code E23, what can I do?

- The most common reason for this error is low battery. Insert new batteries into the Wi-Fi data logger.
- If this does not solve the problem: Reset the Wi-Fi data logger to its factory settings. To do this, press and hold down the control key for > 20 s until the display goes blank. If the error code continues to be displayed, then there is a hardware problem. Please contact our Customer Service.

The Wi-Fi data logger (160 IAQ) is displaying error code E26, what can I do?

- The access point (Wi-Fi router) has no connection to the internet. Check the access point's internet connection.
- The routing within the network infrastructure is not working, check whether too many terminal devices are logged into the access point.

The Wi-Fi data logger (160 IAQ) is displaying error code E32, what can I do?

The Wi-Fi data logger has not obtained an IP address. There are 2 possible reasons for this error:

- The network password is incorrect. Check the password of the Wi-Fi network. Use the Quick Start Guide to create a new configuration file with the correct password and save this on the Wi-Fi data logger.
- The access point (Wi-Fi router) has a MAC filter or does not permit the integration of new devices. Check the settings for the access point.

The Wi-Fi data logger (160 IAQ) is displaying error code E35, what can I do?

- The Wi-Fi data logger has not received any reply to its test ping from the access point (Wi-Fi router). Make sure that a ping to the gateway is allowed within the access point configuration.

Error Codes (Continued)

The Wi-Fi data logger (160 IAQ) is displaying error code E36, what can I do?

No DNS available or accessible. Contact the operator of the Wi-Fi network.

The Wi-Fi data logger is displaying error code E41, what can I do? The Wi-Fi data logger cannot obtain any current time from a time server (pool.ntp.org).

- The access point (Wi-Fi router) has no connection to the internet. Check the access point's internet connection.
- The NTP port (123/UDP) of the access point (Wi-Fi router) is not open. Check whether the NTP port (123/UDP) is opened.

The Wi-Fi data logger (160 IAQ) is displaying error code E51, what can I do?

The Wi-Fi data logger was not able to connect to the testo Saveris 2 Cloud.

- If the Wi-Fi data logger has already been connected to the testo Saveris 2 Cloud and this connection is suddenly no longer possible: The testo Saveris 2 Cloud servers are not currently accessible. The servers will be monitored and should be accessible again within a few hours.
- If the Wi-Fi data logger has not yet been connected to the testo Saveris 2 Cloud: The TCP ports (1883 or 8883) of the access point (Wi-Fi router) are not open. Check whether the TCP ports (1883 or 8883) are open in both directions.

The Wi-Fi data logger (160 IAQ) is displaying error code E52, what can I do?

- The Wi-Fi data logger could not log into the testo Saveris 2 Cloud because it is already logged into another account. Please log the Wi-Fi data logger out of the existing account first.

The Wi-Fi data logger (160 IAQ) is displaying error code E63, what can I do?

The Wi-Fi data logger could not send any data to the testo Saveris 2 Cloud.

- The internet connection was interrupted during the transmission. Check whether there is a stable connection from the Wi-Fi data logger to the access point (Wi-Fi router). Check the access point's internet connection. The data will be transferred during the next communication cycle. Alternatively: Initiate data transmission manually by pressing the control key on the Wi-Fi data logger.
- The testo Saveris 2 Cloud server was not able to process the request for data storage. The servers will be monitored and should be accessible again within a few hours.

The Wi-Fi data logger (160 IAQ) is displaying error code E69, what can I do?

- The Account ID contained in the configuration file is missing or is not valid. Create a new configuration file and save this on the Wi-Fi data logger.
- An attempt was made to log the testo 160 E Wi-Fi data logger into the testo Saveris 2 Cloud without any external probes connected. Connect the required external probes before logging in

Error Codes (Continued)

The Wi-Fi data logger (160 IAQ) is displaying error code E75, what can I do?

- A firmware update for the Wi-Fi data logger failed.
- The internet connection was interrupted during the transmission or the data was not received intact by the Wi-Fi data logger for other reasons. Check whether there is a stable connection from the Wi-Fi data logger to the access point (Wi-Fi router). Check the access point's internet connection. The data will be transferred during the next communication cycle.
- Alternatively: Initiate data transmission manually by pressing the control key on the Wi-Fi data logger.

The Wi-Fi data logger (160 IAQ) is displaying the warning message Err AccountID, what can I do?

- The Account ID contained in the configuration file is not valid.
- Use the Quick Start Guide to create a new configuration file and save this on the Wi-Fi data logger.

The Wi-Fi data logger (160 IAQ) is displaying the warning message no AccountID, what can I do?

- There is no AccountID in the configuration file.
- Use the Quick Start Guide to create a new configuration file and save this on the Wi-Fi data logger.

The Wi-Fi data logger (160 IAQ) is displaying the warning message no License, what can I do?

- The Wi-Fi data logger cannot be logged in because the number of Wi-Fi data loggers permitted to log in has been exceeded or your testo 160 license has expired.
- Log off another Wi-Fi data logger, extend or renew your testo 160 license.

The Wi-Fi data logger (160 IAQ) is displaying the warning message not Active, what can I do?

- The Wi-Fi data logger has been deactivated. It is not storing, and therefore not sending, any measurement data to the testo Saveris 2 Cloud.
- Activate the Wi-Fi data logger (under Configuration --> Wi-Fi data logger) when the Wi-Fi data logger needs to store and send measurement data again.

Licensing Information

Testo Data Loggers will operate under free Basic License with limitations as listed at the table below.

	FREE Basic	Advanced		
Measuring cycle	15 min. to 24 h	1 min. to 24 h (selectable)		
Communication cycle	15 min. to 24 h	1 min. to 24 h (selectable)		
Data storage	Max. 3 months	Max. 2 years		
Reports	Manual (.pdf/.csv)	Manual (.pdf/.csv) Automatic (.pdf/.csv)		
Data analysis	1 measurement channel	Up to 10 measurement channels simultaneously		
Number of users per account	1	10		
Number of Wi-Fi data loggers per account	Unlimited	Unlimited		
Alarm options	Upper/lower alarm limits	<ul style="list-style-type: none"> • Upper/lower alarm limits • Alarm delay • Time control of alarms 		
System notifications	<ul style="list-style-type: none"> • Low battery notification • Radio link interrupted • Power supply interrupted 	<ul style="list-style-type: none"> • Low battery notification • Radio link interrupted • Power supply interrupted 		
Email alarm	Yes	Yes		
Text message alarm	No	<ul style="list-style-type: none"> • Incl. 25 text msgs per logger per year • More SMS packages purchaseable 		
		12-month license order no. 0526 0735	24-month license order no. 0526 0732	36-month license order no. 0526 0733

Register now: <https://americas.saveris.net/>