USER GUIDE

LTI-WM-WiFi

LogTag

Distributed by AKRIBIS

LTI-WM-WiFi

Real-Time Wireless Interface

Product User Guide

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Introduction

The LogTag® Real-time Wireless Interface LTI-WM-WIFI is one of the most versatile models in the range of LogTag® interfaces. It serves as the link between LogTag®'s non-USB logger models and the LogTag® Online cloud monitoring system.

- Used with all products that establish PC communication via the 3 contact pins at the rear
- Connects to wireless access points and routers with WPA/WPA2 network security
- No computer required to operate
- Red, amber and green LED's provide feedback about the data exchange between logger and interface
- Dual red/blue network LED's show connection status
- Buffers logger data during network outages

Send real-time data to LogTag® Online

The LTI-WM-WiFi can transmit real-time temperature data from any compatible LogTag® model that is permanently placed in the interface.

Upload files from multiple loggers to LogTag® Online

One single LTI-WM-WiFi allows uploading of logger data files to LogTag® Online from multiple 3 contact pin LogTag® loggers.

PC-Interface for use with LogTag® Analyzer

Use the LTI-WM-WiFi as a standard USB interface connected to your PC to exchange data with LogTag® Analyzer for logger configuration, download and data analysis.

Features

The LTI-WM-WiFi Real-Time Wireless Interface is a wall mounted version of the LTI-WIFI with additional real-time features, using the same proven spring contacts as previous interface models.

Case

- Durable polycarbonate case, IP50
- Micro-USB socket for USB 2.0 PC connection and power supply
- Reliable gold-plated spring contacts
- Clip-in wall bracket for mounting with screws or double-sided tape.

Indicators

Indicator LEDs showfeedback about the data exchange between logger and interface, as well as network and cloud communication.

- Green 'Ready' LED
- Red 'Busy/Error' LED
- Amber 'Real-time' LED
- Blue/Red 'Network Status' LED

Each indicator can either be

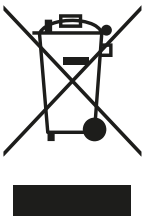
- off
- on
- blinking

  A blink pattern is characterized by long on periods followed by long off periods
- flashing/double flashing

  A flash pattern is characterized by very short on periods followed by long off periods

The sections about the interface's operation contain more informatinabout the various patterns and what information they convey.

Battery Life



The LTI-WM-WiFi contains a small lithium battery, designed to maintain the real time clock in case of a power failure. This battery is expected to last in excess of 5 years, provided:

- the device is stored and operated according to LogTag Recorders' recommendations
- the device is not operated without external power for extended periods of time

The battery can be replaced by a qualified technician. Please contact your distributor for further information.

Keep out of the reach of children!

Do not expose the interface to extreme temperatures as it may lead to the destruction of the battery and may cause injuries.

Empty batteries should be recycled or disposed of according to your local regulations.

What's in the Box

Please check that you have received the following items:

- the LTI-WM-WiFi Real-Time Wireless Interface
- the wall bracket used to mount the interface on the wall
- a micro-USB to USB-A 2.0 cable (Power, PC)
- a strip of high-bond double-sided adhesive pad
- a Quickstart Guide

What you need to provide

In addition to the items you receive you will also need the following:

- a 5VDC/5W power supply with USB type A socket (or a power supply with a fixed Micro-USB cable).

  Your distributor may provide this for you
- a wireless network with internet connection
- a PC for configuration of the wireless network access
- access to a LogTag® Online Account

Preparing an LTI-WM-WiFi for first use

The LTI-WM-WiFi Real-Time Wireless Interface provides a link between your LogTag® data logger and LogTag® Online. Its primary function is to transfer data wirelessly when connected to a WLAN.

Before your LTI-WM-WiFi can upload temperature data to LogTag® Online you need to perform a few setup steps.

In the office

These steps are completed in your office, using a PC connected to the internet:

- connect the interface to a PC with the included USB cable
- create a LogTag® Online account if you have not already done so previously (you can also do this as part of the next step)
- set up the LTI-WM-WiFi so it connects to your wireless network. This is done using the LogTag Online Connection Wizard
- if necessary, complete the device setup in LogTag® Online

At this stage, you may also wish to attach any loggers used with this interface to a LogTag® Online location. This is essential if you wish a logger to report real-time data to LogTag® Online.

You can find more information about Locations in the LogTag® Online user guide.

On-site

Once you have completed this process you can take the interface to the location where it will be installed and:

- mount the interface on a wall or other surface
- connect external power
- verify that the interface connects to LogTag® Online and can successfully upload data from loggers

Connecting the Interface to your PC

Plug the micro USB connector of the included cable into the interface's USB socket.

Take note of the orientation of the plug.

Plug the other end of the cable into a USB socket on your PC. All LED's will briefly blink and the Windows driver for the interface will now be installed. This may take a few moments.

Once the driver has loaded, the interface is ready for configuration.

> ⚠ Note: Even after the driver has been successfully installed, all LED's will briefly blink as soon as you plug the interface into a USB port (or you start your computer if it was off), which indicates the interface correctly initialised.

LogTag® Online Connection Wizard

Configuring the Wireless Network connection parameters of your LTI-WM-WiFi requires a software tool called LogTag® Online Connection Wizard. It is a self-contained program that requires no installation and can be downloaded from:
logtagrecorders.com/download/connectionwizard.exe

If you are unable to download via the above link, a zipped version is also available here:
logtagrecorders.com/download/connectionwizard.zip

Before you start the wizard, please get the following details about your wireless network:

- Network name of your wirless network (also called the SSID)
  This is the name of the wireless network you wish to connect to
- Network Security Key
  This is sometimes also called the Pre-Shared Key (PSK), Passphrase or simply the Network Password. You need this password so the wireless network will allow the interface to connect.
- Dynamic (DHCP) or Static IP
  Depending on the way IP addresses are allocated in your network you need to complete different parts of the Wizard. Most networks have a DHCP server, so you can complete the *Easy Setup*. Your IT Network Administrator will advise you if the network you connect to does not have a DHCP server, and will provide you with any connection details you may need to enter when completing the *Advanced Setup*.

Start the LogTag® Online Connection Wizard it by double-clicking the downloaded file. You will see the introductory window:

Follow the on-screen instructions. Each window in the wizard gives you additional information and explains the steps you need to complete.

For detailed instructions about the LogTag® Online Connection Wizard please refer to Appendix 1 - LogTag® Online Connection Wizard on page 29 or the online help at http://help.logtagrecorders.com/LTOWizard/Topics/Home.htm.

⚠ You can set up multiple interfaces at the same time. When you use the Easy Wi-Fi Setup, all interfaces will receive the same SSID and Network Security Key. Using the Advanced Wi-Fi and Network Setup, you can choose to leave the individual Wireless Network Settings untouched, and only change Network related settings.

Connecting to LogTag® Online

The LTI-WM-WiFi Real-Time Wireless Interface is pre-configured to connect to the LogTag® Online cloud server. To be able to use the interface, you need to have a LogTag® Online account and register the interface against your account.

These steps are explained in detail at logtagonline.com/getstarted.

Mounting the Interface

Once the setup is complete, unplug the USB cable from your computer.

You can now mount the interface in its designated location. To do this, you will need to:

- mount the wall bracket to a suitable surface
- add the USB cable
- clip the interface body to the wall bracket
- provide power to the interface

Before you permanently attach the interface's wall bracket we recommend:

- you make sure a suitable power socket is close to the installation location
- you check that the USB cable from the 5V power supply cable can reach the installation location
- you check that the wireless network you are tryting to connect to is available at the installation location

- Avoid placing the interface too close to large metal surfaces or concrete walls
- Where possible, locate the interface close to a Wireless Network access point

Attaching the wall bracket using VHB tape

The interface's wall bracket can be attached to a wall using the included double-sided VHB adhesive pad. Please note the glue on this pad is very strong and once placed cannot be taken off easily.

Make sure the mounting surface and the wall bracketare clean.

Remove the protective cover from one side of the adhesive pad.

Attach the pad to the designated are on the rear of the bracket.

Remove the second protective cover and attach the bracket to the wall.

Attaching the wall bracket using screws

Mark two positions on the wall vertically above each other, 40mm apart.
Use two #6 (3.5mm) pan head screws and screw the bracket to the wall.

Installing the interface

Route the USB cable through the retention clamp. Leave enough cable to form a loop.

Slide the interface onto the wall bracket.

Slide until the retention clips are fully engaged.

Plug the micro USB connector coming from the USB power supply into the interface's USB socket.

Take note of the orientation of the plug.

The installation is now finished.

When you add a logger later for real-time monitoring you can secure it against accidental removal with a cable tie or similiar device:

Powering the LTI-WM-WiFi

The LTI-WM-WiFi Real-Time Wireless Interface requires power to be supplied via its USB socket from a commercially available 5V USB power supply (5W).

> ⚠ Some low-quality USB power supplies are unable to deliver sufficiently stable power to the LTI-WM-WiFi. Please use a power supply from a reputable source that carries the UL or CE marking.

Plug the micro USB connector of the included cable into the interface's USB socket.
Take note of the orientation of the plug.

Plug the other end of the cable into the power supply. You can also use a 5V power supply with a fixed micro-USB power connector.

> It is not advisable to use a power bank as an external power supply. The LTI-WM-WiFi requires very little power, which causes most power banks to turn off after a short time.

First Power-up

When the interface first powers up you will see the following LED sequence:

1. All LED's flash simultaneously 5 times
2. The green LED turns on permanently to indicate the interface is ready to receive a logger
3. The red network LED double-flashes while the interface establishes a connection with the wireless network.
4. As soon as a connection with your wireless network is established, the red network LED changes to a single flash. The interface now connects to the LogTag® Online cloud server.
5. When the connection to the cloud server has been established, the blue network LED double-flashes.
6. The blue network LED changes to a single flash once the registration details for the interface have been confirmed.

If the blue network LED does not flash, please refer to the troubleshooting section to identify potential problems.

LED Signals - Network LEDs

Action	Blue (Connect)	Red	Visual
Wi-Fi not configured or off	off	off	
Not connected to Wi-Fi	off	double flash	...
Connected to Wi-Fi, but no cloud server connection*	off	flash	...
Connected to cloud server, link not established*	double flash	off	...
Connected to cloud server, link established	flash	off	...
Uploading data*	rapid flashing	off	...

* Some signals only appear for a very short time, and may not always be observed

Technical Background

The Wireless Interface first negotiates security credentials with the wireless network of the configured SSID.

> ⚠ Ex-factory, the LTI-WM-WiFi interface supports the wireless authentication WAP/WAP2 - PSK. To find out about other authentication methods such as RADIUS server authentication or open networks with logon pages please contact your distributor.

Once successful, it contacts the network's DHCP server to receive network connection details such as IP address allocation, network mask, gateway and DNS server addresses.

Once these details are received, or if static network address details have been supplied, the interface contacts the LogTag® Online server on port 18888 to authenticate the interface. For this, it checks, if the interface's serial number has been registered against a user in the LogTag® Online database. During this phase the blue network LED double-flashes. If the interface is found in the database, the blue network LED single-flashes to indicate it is connected and data can be uploaded.

The server never contacts the interface, so no special routing setup is required. You will need to allow TCP connections to wifi.logtagonline.com on port 18888 in your firewall.

Using the LTI-WM-WiFi with LogTag® software

The Real-Time Wireless Interface can provide the same functionality as other USB interfaces when connected to a PC via a USB lead. When you start one of the LogTag® software packages, such as LogTag® Analyzer, the network LEDs will turn off to indicate the interface has established connection with the software and is ready for a logger to be inserted. The green LED will remain on to indicate the interface is ready to receive a logger.

> ⚠ Note: The network LEDs will only turn off if the software's **Automatic Download** feature is enabled. In LogTag® Analyzer this feature is enabled by default, but can be turned off in the option settings. If **the Automatic Download** feature is disabled, the LTI-WIFI will connect to the Wireless Network, and any logger inserted will be uploaded to the cloud server.

- As soon as you insert a logger, the automatic download starts, the green LED will turn off and the red LED will turn on. This indicates the software is communicating with the logger, in this case downloading data.
- If the communication was successful, the green LED blinks. You can now continue with additional tasks, such as configuring the logger or hibernating it.
- When the logger is being configured, either automatically or based on your settings, the red LED turns on once again.
- As soon as the configuration parameters have been successfully uploaded to the logger, the green LED blinks.

If there was an error during communication, and the data could not be downloaded or uploaded, the red LED blinks. The most common causes for this are a low battery, dirty contacts on the logger or trying to configure a single use logger for a second trip. You will also see the red LED blinking if you don't provide a password where required or cancel an operation mid way.

LED Signals

Action	Green (Ready)	Red (Busy/Error)	Visual
Power up	simultaneous rapid blinking, 5 times		
USB setup incomplete	off	blinking	...
Ready for a logger	on	off	...
Logger being downloaded	off	solid on	...
Download successful	blinking	off	...

Action	Green (Ready)	Red (Busy/Error)	Visual
Logger being configured	off	solid on	...
Configuration successful	blinking	off	...
Logger being hibernated	off	solid on	...
Hibernation successful	blinking	off	...
Problems during data exchange	off	blinking	...

Using the LTI-WM-WiFi with LogTag® Online

During use the interface is connected to your LogTag® Online account, indicated by the flashing blue network LED. The green 'ready' LED is on, indicating the interface is ready to download a logger.

Insert a logger into the interface as shown and slide down until you hear the contacts engage.

Any recorded data are now automatically transferred into the interface's internal memory. The green 'ready' LED will turn off and the red 'busy' LED will turn on during the data exchange.
If the transfer was successful, the interface will upload the data to your cloud account, where they will be available for viewing after a short time. During the upload the blue network LED flashes rapidly.
If the logger is attached to a location, the data will be available in the location data, if not, they can be viewed in LogTag® Drive.
For more information about the different viewing options please refer to the LogTag® Online help.
The logger now attempts to switch to real-time data uploading:

- the red LED flashes if the logger is no longer recording. Real-time data will not be available until you re-start the logger.
- the amber 'Real-time' LED flashes if the logger is still recording. From now on, the interface will periodically connect to LogTag® Online and transmit newly recorded data.

> ⚠ Real-time readings will only be sent to LogTag® Online if the logger is attached to a location.

If you do not wish the logger to upload any more data to LogTag® Online you can simply remove the logger from the interface now.

For more information about ongoing data upload please see Real-Time Operation on the next page.

If an error occurred the red 'busy' LED blinks. The most common causes for this are

- the logger has a low battery
- the logger's contacts are dirty and prevent communication
- the logger is still cold when you try to download it
- the logger requires a password to download
- you remove the logger before the download was completed.

You can download logger data to the interface, even if no cloud server connection is available (blue network LED is blinking). The files will be retained in the interface until a connection can be made. Red and amber LED's will alternately flash when the interface memory is full. No more loggers can be downloaded until the buffered data are uploaded to the cloud. Use the network LED table to identify possible reasons why the files have not been uploaded. Please see the section about Troubleshooting for details.

LED Signals - Activity LEDs

Action	Amber (Real-time)	Green (Ready)	Red (Busy/Error)	Visual
Waiting for a logger	off	solid on	off	...
Logger being downloaded	off	off	solid on	...
Download successful, real-time operation active	flashing	off	off	...
Download successful, real-time operation inactive	off	off	flashing	...
Problems during download	off	off	blinking	...
Interface memory full	blinking	off	blinking	...

Real-Time Operation

One of the benefits of the LTI-WM-WiFi is the ability to transmit real-time temperature data from an inserted LogTag® logger to LogTag® Online.

When you first insert a logger into the interface, the readings recorded since the logger was started will be uploaded to LogTag® Online if the logger is recording. These readings are associated with the location to which the logger is attached. During this time the red LED will be on.

Once all previous readings have been uploaded, the logger now attempts to switch to real-time data uploading and the amber 'Real-time' LED flashes. From now on, the interface will periodically connect to LogTag® Online and transmit newly recorded data.

> ⚠ Real-time readings will only be sent to LogTag® Online if the logger is attached to a location and is logging.

Newly recorded temperature data will now be transmitted to LogTag® Online at regular intervals, as well as being recorded in the logger's own memory.

To transmit real-time data, you will need to complete the following setup steps:

- associate the logger you wish to use with a location
- configure the logger using LogTag® Analyzer
- start the logger
- insert the logger into the interface

If the red LED flashes, the logger is either no longer recording (you may be able to reset and restart the logger) or waiting to start recording (for example when the start time has not yet passed). Real-time data will not be available until the logger starts.

> ⚠ To transmit real-time data, the logger's internal clock must be correct. Models that have been started using the "Push button start from hibernation" feature will not transmit real-time data to LogTag® Online. You will also not be able to transmit real-time readings from TRID30 or TRED30 loggers where the time was set using the Clock Adjust feature after hibernation.

Real-time data can be transmitted from any logger with the 3-pin contact interface, however, due to the proximity of logger and interface during logging we recommend to use only loggers with external sensors, as the measurement accuracy may be affected.

LED Signals - Activity LEDs

Action	Amber (Real-time)	Green (Ready)	Red (Busy/Error)	Visual
Waiting for a logger	off	solid on	off	...
Logger being downloaded	off	off	solid on	...
Download successful, real-time operation active	flashing	off	off	...
Download successful, real-time operation inactive	off	off	flashing	...
Problems during download	off	off	blinking	...
Interface memory full	blinking	off	blinking	...

What happens if there is a power cut?

Any logger always records data in its internal memory, regardless whether it is inserted in an interface or not. In case of a power cut, any readings not transmitted during the power outage will be uploaded to LogTag® Online as soon as power is restored to the interface and the wireless network is available.

Will I get duplicate data if the same logger is downloaded multiple times?

Not if the logger is attached to a location. In this case, LogTag® Online will match the newly uploaded data with existing data and only upload the new information.

If the logger is not attached to a location, each time you insert it into the interface a new file is generated in LogTag® Drive.

My logger is recording pre-start readings, will they be transmitted in real-time?

No, to transmit real-time readings the logger must be started. Pre-start readings are not transmitted to LogTag® Online.

I have started the logger, but the LED still flashes red.

Your logger may be configured to start recording after a start delay. You will have to wait until the end of the delay period before the amber LED starts flashing.

Configuring the logger with LogTag® Analyzer

Before real-time data can be transmitted, the logger must be configured with LogTag® Analyzer. You can use any interface model to configure the logger, including the LTI-WM-WiFi.

> ⚠ If a logger is not yet (or no longer) recording, no real-time readings will be transmitted to LogTag® Online. Only readings recorded during a trip will be transmitted, not before the trip has started, or after the logger has stopped.

- The logger must be configured using date/time start or push button start. Push button start from hibernation is not supported.
- You can use a delayed start. Only once the logger starts recording will readings be transmitted to LogTag® Online.
- You can configure the logger using pre-start readings, however, these will not be transmitted to LogTag® Online.
- LogTag® Online sends alarm notifications based on the alarm levels and trigger conditions you configure here.

> We recommend you select "Record readings continuously" so you do not have to re-configure the logger after its memory is full.

Troubleshooting

No data is arriving in my LogTag® Online account

To successfully upload data to LogTag® Online, your LTI-WM-WiFi needs to be connected to your wireless network and be able to access the LogTag® Online cloud server. It also needs to be registered to your team's account and must be attached to a location.

If the connection has succeeded and data is being uploaded, the blue network LED will flash.

If you cannot see any data in that location from your device, although you have configured it with the LogTag® Online Connection Wizard, you can use the network status LEDs to help narrow down which part of the upload process fails.

The red network LED double-flashes

- - - - - - ...

The LTI-WM-WiFi is trying to access the wireless network, but has not yet successfully connected.

If you see this flash pattern for more than 10 seconds, the LTI-WM-WiFi is trying repeatedly to connect to the network.

If the connection eventually succeeds, this could indicate a weak wireless signal. If possible, move the LTI-WM-WiFi closer to the access point.

If this flash pattern continues, the LTI-WM-WiFi has attempted to connect to the wireless network, but was unsuccessful.

This can have a number of different reasons, which include the following:

- the configured network is temporarily unavailable or out of range

  Try to scan for available networks using a different device, such as a laptop or cellphone. This will verify if the network is currently transmitting.

- the network password has not been entered correctly

  If the network is transmitting, try to access the wireless network with a different device, such as a laptop or cellphone, using the password you entered.

  If required, re-run the LogTag® Online Connection Wizard, select the option ***WiFi Only Setup*** and re-enter the correct name and password of the wireless network you wish to connect to.
- the network requires confirming a logon screen on a web browser

  At this stage, the LTI-WM-WiFi is unable to connect to a network that requires completing a logon process, such as is present on many guest networks. Your network administrator will need to add an exception for your device.
- The network has an unsupported authentication method

  At present, the LTI-WM-WiFi can only connect to wireless networks with WEP or WPA/WPA2 access without enterprise functions. Contact your distributor if you need to connect the LTI-WM-WiFi to a network that does not support either of these access methods.

If you continue to get this error, please discuss this further with your network administrator.

The blue network LED double-flashes

The LTI-WM-WiFi has successfully connected to the wireless network and is in the process of connecting to the LogTag® Online cloud server.

If you see this flash pattern for more than 10 seconds, the LTI-WM-WiFi has to try repeatedly to connect to the server.

If the connection eventually succeds, this could indicate a weak wireless signal, or general network issues related to the new device. If possible, move the logger closer to the access point and discuss this further with your network administrator.

If this flash pattern continues, the LTI-WM-WiFi has successfully connected to the wireless network, but was unable to establish a connection with the cloud server.

This can have a number of different reasons, which include the following:

- Destination port 18888 is closed

  Please ask your network administrator to open port 18888 in the network's firewall.
- No DHCP server found on the network

  You may have set up the LTI-WM-WiFi to use DHCP, but your network does not offer DHCP connections. Please discuss this with your network administrator, and run the LogTag® Online Connection Wizard again, selecting *Advanced Setup*.
- No IP address or DNS server configured

  Please re-run the LogTag® Online Connection Wizard, select *Advanced Setup* and enter the correct DNS settings. If available, use DHCP to receive the DNS settings.
- The LogTag® Online cloud server is offline

The blue network LED flashes

- - - ...

If the blue network LED flashes, indicating a successful connection, yet you still do not receive any data into your LogTag® Online account, please check the following:

- Your device may be registered to a different team

  Please re-run the LogTag® Online Connection Wizard and register the device to your team
- Your device has no data to upload

The red 'busy' LED is permanently on, but all other LED's are off

Using a special program, the LTI-WM-WiFi interface can be upgraded, if LogTag Recorders release new products or add new functionality. When the red 'busy' LED is on, the interface is ready to receive an upgrade.

At this stage, the LTI-WM-WiFi cannot be upgraded over-the-air.

If your interface shows this LED signal, but you have not started an upgrade with special software, please remove the power lead, wait for 5 seconds, then re-apply power. If the LED signal persists please contact LogTag® Support.

Only the green activity LED is on, but no Network LED

This can have two reasons:

1. You have not configured a Wireless network.

   Both network LEDs remain off, if you have not provided an SSID. Ex factory, the LogTag® LTI-WIFI interface does not have an SSID configured.
2. The interface is connected to a PC with LogTag® software running.

   Please read Using the LTI-WIFI with LogTag® Software for details why the LED's do not turn on in this scenario.

The blue network LED flashes rapidly, but I only just powered it up

This typically happens if you downloaded a logger in the past, but for some reason the data from the logger could not be uploaded to the cloud server. In this case, the interface will attempt to upload the data again, until it receives an acknowledgement from the server for receiving the data in full. This is by design to make sure all data will be uploaded to the cloud server.

Red Activity LED keeps blinking

This indicates a problem with the communication between interface and logger. The most common causes for this are a low battery, dirty contacts on the logger, trying to download a logger with a password where required or cancelling an operation mid way.

Technical Specifications

Model Number	LTI-WM-WiFi
Operating Temperature Range	-25 °C to +40 °C (-13 °F to +104 °F)
Storage Temperature Range	-40 °C to +70 °C (-40 °F to +158 °F)
Ambient humidity range during transport and use	0 to 95%RH
Wireless standard	802.11 b/g/n, 2.4GHz
Wireless Antenna	internal high sensitivity antenna
Transmit Power	– 18.3 dBm @ 1 Mbps DSSS – 13.7 dBm @ 54 Mbps OFDM
Receive Sensitivity	– -96.0 dBm @ 1 Mbps DSSS – -74.5 dBm @ 54 Mbps OFDM
Wireless Range	40m (clear line of sight)
Network Security	WPA/WPA2-PSK
Indicators	Green 'Activity' LED Amber 'Real-time' LED Red 'Busy' LED Blue/Red dual colour 'Network Activity' LED
Vibration	Withstands vibration specification as detailed in EN12830:1999
Shock	Withstands shock specification as detailed in EN12830:1999 Withstands 5 drops from 1m onto smooth concrete floor without loss of function
Compliance	FCC, CE, RoHS
Buffer Memory	1MB , sufficient to buffer a minimum of 45 downloaded loggers.
Environmental	IEC 60529: IP50
Case Material	ABS, Polycarbonate
Power source	5V/5W DC Power Supply (not included) via micro USB socket Internal 3V, 1225 lithium coin cell backup battery
Operating life	Typically at least 100,000 insertion cycles, provided the unit is used within the advertised operating temperature range.
Size	70 mm (H) x 114 mm (W) x 38 mm (T), excluding cable, including wall bracket
Weight	114 g, excluding cable, including wall bracket
Software requirements	LogTag® Analyzer 2: Version 2.9r6 or later LogTag® Analyzer 3: Version 3.0r8 or later
USB connectivity	Micro USB 2.0 socket
Included accessories	USB 2.0 type A plug to USB 2.0 micro USB cable

Appendix 1 - LogTag® Online Connection Wizard

After you have dowloaded and started the LogTag® Online Connection Wizard you will be presented with the start-up screen:

Click Start when you are ready to proceed.

Selecting a Setup Option

The LogTag® Online Connection Wizard offers three setup options.

- Easy Setup
  For most users, we strongly recommend using this option when configuring a new LogTag® wireless device. This option registers your device, asks for the WLAN connection details and checks that the provided details result in a successful connection to LogTag® Online.
  This is the default option.
- Advanced Setup
  Only select this option if you are a Network Administrator and need to manually configure network details such as IP, DNS server and gateway addresses. You can also adjust the power level of the device and protect the configuration of the device with a password.

- WiFi Only Setup
  If you have already configured and registered your device and only need to change the device's wireless network details, use this option to skip the connection tests for LogTag® Online.

Click Next > when you are ready to continue with the LogTag® Online sign in process.

Providing your LogTag® Online Sign-In Details

This page allows you to sign in to your LogTag® Online account, so your devices can be registered automatically by the Wizard.

- I am new to this, I do not have an account
  If you have not yet created an account, click **Create a LogTag® Online Account**. You will be taken to the account creation page. Complete the process and return to the wizard once you have created the account and validated your email address.
- I already have an account
  If you have previously created a LogTag® Online account, type your email and password and click SIGN IN.

  > If you have an existing account but have forgotten your password, you can request a new password at https://logtagonline.com/emailpassreset. Follow the on-screen instructions on that page.

- I have an account and I am a member of multiple teams
  If you have an existing account and have previously been invited to one or more teams, you can select the team for which you wish to register the new device after you have signed in.

Click Next to continue to the device page.

Scanning for Device(s)

In this step any connected wireless logger or interface is registered to your LogTag® Online account. This is required for a new device, so any data that are uploaded are only available to you and cannot be viewed by anyone outside your team.

The wizard will now scan for any connected LogTag® devices. If the scan doesn't find any devices, verify that the devices are plugged into your computer with the USB cable provided and click Scan Again.

As soon as a device has been identified, it will appear in the table. The registration process starts.

The registration status will update as soon as the device is registered against your LogTag® Online account.

Click Next > when all devices have been registered.

You can now proceed with entering the wireless and network connection details.

Entering the Wireless and Network Settings

As soon as you see this screen, your wireless logger or interface begins searching for wireless networks in range.

Click the arrow for the Network Name to reveal a list of discovered wireless networks.

> The network discovery process can take up to 2 minutes. Please wait while the scan is in progress.

You can also type the name of your network (SSID) in the Network Name field. This is useful if your wireless network does not appear in this lists, for example if is hidden for security purposes.

Once you have selected your wireless network from the list, type the network password. The characters you type will be hidden.

> Passwords for wireless networks are case-sensitive. Make sure your Caps Lock key is not active.

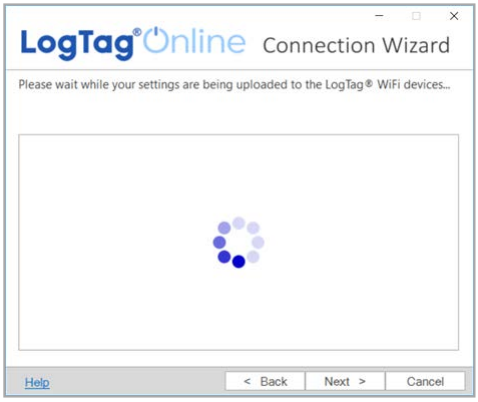
Once you have entered your password, you can click 👁 to show the password characters.

> ⚠ Please verify that your password is correct. An incorrectly entered password is the main reason why a connection to LogTag® Online might be unsuccessful.

Once you have selected your network and password, click Next > to start the connection tests.

Uploading network settings

The network settings you entered in the previous window are now uploaded to the device. Typically, this takes no longer than a few seconds.



The LogTag® Online Connection Wizard will now test the connection to the wireless network and to LogTag® Online.

When your device has successfully connected to LogTag® Online, click Next > to finish the Wizard.

The setup is now complete. Click Again to start the Wizard from the beginning, if you wish to repeat the configuration for other devices. Click Close to end the Wizard.

If you wish to upload real time data from the LTI-WM-WiFi interface you will need to complete further setup steps in LogTag® Online. Click **LogTag® Online Sign In page** so you can sign in to your account, create the required locations and attach loggers to these locations.

You can find more information about locations and attaching loggers in the LogTag® Online help.

Finalizing the Configuration

The LTI-WM-WIFI can report a successful connection to LogTag® Online via the Wizard.

After you have deployed the interface in its final location, you should confirm the device was successfully configured by looking at the network LED at the front of the interface.

If the blue network LED blinks every 4 seconds, your LTI-WM-WIFI has successfully connected to the LogTag® Online cloud server, and your interface is ready to upload data.

Logger real-time data can be uploaded to locations. This can be set up in LogTag® Online.

For more information please refer to the LogTag® Online help.