



Trulifi 6002 – User Manual

Trulifi 6002.22 USB Key and Access Point configuration

1 Package contents

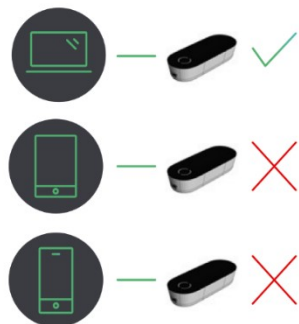
The Trulifi 6002 USB Key package contains:

- 1 User manual (this document)
- 2 Trulifi 6002.22 USB Key
- 3 USB-C cable

2 Supported devices

Currently the following desktop and laptop operating systems are supported:

- Windows 7
- Windows 8.x
- Windows 10
- Windows 11
- macOS 10.14.x and higher



3 Getting started

This section describes the necessary steps to connect your desktop or laptop to the LiFi network.

3.1 Connecting the USB Key to your computer

- 1 Connect the Trulifi 6002.22 USB key to your computer using the USB-C cable. Note: The USB key and your computer should be located within the coverage area beneath the transceiver to enable a LiFi connection.
- 2 When the USB key is connected to the laptop, the indicator light will start blinking Orange, indicating that the USB key is booting up and trying to find a LiFi network.
- 3 When a LiFi network is found and an IP address is being negotiated, the USB key the indicator light will blink in Green.
- 4 When an IP address is negotiated and a network connection is established, the indicator LED will stop blinking and will be continuously on in Green

In case of questions, please contact:
customercare.trulifi@signify.com

3.2 Status LED

The LED on the top of the USB Key indicates the status of the LiFi connection.

- **Status LED off: Disconnected.**
 - The USB key is not connected to the computer.
- **Status LED Orange (flashing): Searching for LiFi.**
 - The USB Key is connected to the computer, and it is searching for a LiFi connection. If the connection cannot be established, please ensure that the USB key is placed underneath a LiFi transceiver and that the line of sight is not obstructed.
- **Status LED Green (flashing): Connecting to network.**
 - The USB Key has found a LiFi connection and is negotiating an IP connection.
- **Status LED Green (on): Connected.**
 - The USB Key is connected to the network.
- **Status LED Orange (on): Incorrect encryption key.**
 - The USB Key cannot connect to the Access Point because the LiFi encryption keys do not match. Please consult with your system administrator for the correct encryption password.

4 Advanced configuration

If necessary, use the Trulifi 6002.22 web configuration system to configure specific operating parameters, for example to change the LiFi encryption password or to update the firmware of the devices.

Note: The web configuration system is designed for IT managers and requires a basic understanding of LAN network configuration.

4.1 Factory default IP configuration

Out of the box the Trulifi 6002 Access Points and USB keys are pre-configured with DHCP enabled. With DHCP enabled, the device will automatically receive an IP address and subnet mask. In addition to this automatically assigned IP address, the Access Point and USB key also have a static IP address, even when DHCP is enabled. This can be helpful in case you are unable to retrieve what address has been assigned by the DHCP server. The default static IP address is:

- 192.168.1.10 (6002 Access Points)
- 192.168.1.20 (6002 USB key)

The corresponding default subnet mask is:

- 255.255.255.0

In case your LAN network configuration uses different IP configuration settings, you must temporarily apply the IP settings described above to configure your Access Point and USB Key and switch back afterwards.

Once you have logged in to the web configuration system, the IP settings can be changed, for example to apply a

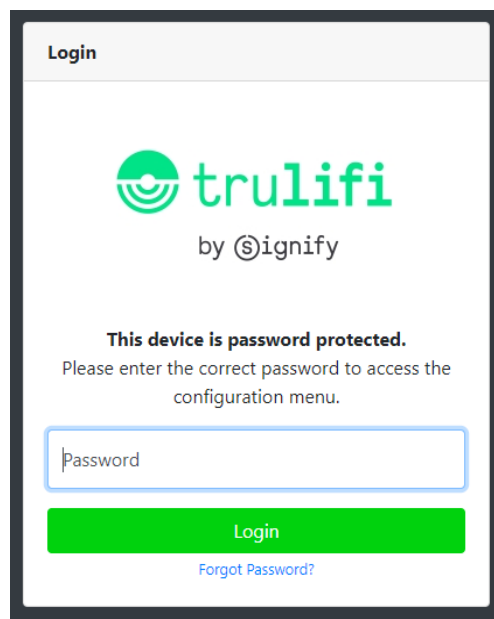
different static IP address and subnet, or to enable dynamic addressing using DHCP. These settings are described in section 4.7.2.

4.2 Logging in to the Web configuration system

To access the web configuration system, please open a standard web browser and enter the correct IP address of the device.

Enter the Security password in the pop-up dialog. Default password:

- Trulifi 6002.22 USB Key: serial number printed on the bottom of the device
- Trulifi 6002.1 and 6002.2 Access Point: serial number is printed on the top cover of the device



If needed, this password can be changed in the Settings tab.

After entering the password successfully, the main overview window opens. On the left side of this window there are several menu tabs to view and change system configuration parameters.

NOTE : In case you forgot the login password of the Web configuration system, click 'Forgot Password?' and follow the instructions in section 4.8.

Alternatively, there is a factory reset button on the back side of the USB key, which can be pressed with eg a paperclip, when the USB key is connected to the device.

4.3 Device Information

The Device Information tab shows various static information about the USB Key and the LiFi connection. The information in this tab cannot be changed.

The screenshot shows the 'Device Information / Overview' page. It contains two main sections: 'Hardware information' and 'Firmware information'. The hardware section lists details like Device name (Trulifi 6002), Device description (Signify Wireless Networks Trulifi), Device manufacturer (Signify), Serial number (012345678901), MAC address (00:17:88:f9:13:00), Hardware version (6002_22_END_POINT), and Ethernet interface (Connected 1000 Mbps / FULL_DUPLEX). The firmware section lists Firmware version (6002_22_USB_P_M TRULIFI.v4_1_0_RC6) and System uptime (8 days, 20h 44m 8s).

Hardware information	
Device name	Trulifi 6002
Device description	Signify Wireless Networks Trulifi
Device manufacturer	Signify
Serial number	012345678901
MAC address	00:17:88:f9:13:00
Hardware version	6002_22_END_POINT
Ethernet interface	Connected 1000 Mbps / FULL_DUPLEX

Firmware information	
Firmware version	6002_22_USB_P_M TRULIFI.v4_1_0_RC6
System uptime	8 days, 20h 44m 8s

4.4 Optical Link Performance tab

The Optical Link Performance tab displays the MAC-address of the devices connected as well as the optical link performance.

The screenshot shows the 'Optical Link Performance / Overview' page. It features a table titled 'Optical links' with columns for Device ID, MAC Address, Phy Tx (Mbps), and Phy Rx (Mbps). The table shows one device with ID 1, MAC Address 00:13:9d:00:06:57, Phy Tx of 83 Mbps, and Phy Rx of 245 Mbps.

Device ID	MAC Address	Phy Tx (Mbps)	Phy Rx (Mbps)
1	00:13:9d:00:06:57	83	245

4.5 Security tab

The security tab allows to change the preconfigured LiFi encryption password to restrict access to the LiFi network. Note that the LiFi encryption password is independent from the password to log in to the Web configuration system.

- The default password to access the Web UI for the Trulifi 6002.22 USB Key is the serial number which is printed on the back of the device
- The default LiFi encryption password is: **trulifi**

The screenshot shows the 'Security / Overview' page. It has two main sections: 'LiFi Encryption' and 'WebUI Login'. The 'LiFi Encryption' section has fields for 'Network name' (set to signifyLiFi) and 'Password' (with a 'Change password' button). The 'WebUI Login' section has a 'Login password' field (with a 'Change password' button).

Changing the LiFi encryption password

The LiFi encryption password must be identical on the Access Point and all USB Keys. Any difference in the

The screenshot shows a confirmation dialog box titled 'CONFIRMATION'. It contains the text: 'Please confirm that you want to change the password. Note: Make sure passwords are in sync with other Trulifi devices. Otherwise you will not be able to establish a LiFi connection anymore.' There are 'Cancel' and 'Confirm' buttons.

password will result in a loss of LiFi connection between the Access Point and the USB Key.

Change the LiFi encryption password of the Access Point

1. Disconnect your USB Key from your computer. Make sure that your computer is connected to the Access Point via the Access Point's LAN connection (instead of the LiFi connection).
2. Use your web browser to open the web configuration system of the Access Point. Log in using the correct password and switch to the Security tab
3. Change the LiFi encryption password. Simply type a new password into the "Password" field and click on "Change password".

Change the LiFi encryption password of the USB Key

4. Reconnect your USB Key. You will notice that the connection between to Access Point will not be established because the encryption passwords are different at this moment.
5. Ensure that your computer's IP address configuration is correctly set, as described in sections 4.1 and 4.4.
 - Note that because you reconnected the USB Key, your computer can no longer reach the DHCP server in your network.
 - If you are using the factory default static IP address as described in section 4.1, you may have to manually assign a temporary static IP address 192.169.1.x (with x unequal to 10 or 20) to your computer's Wireless LAN adaptor and set the subdomain to 255.255.255.0. (In Windows, go to Control Panel, Network and Internet, Wi-Fi, Change Adaptor options).
6. Open the web configuration system of the USB Key using your web browser at correct IP address. Log in using the correct password and switch to the Security tab

7. Change the LiFi encryption password. Use the same LiFi encryption password as you have used for the Access Point and click on “Change password”.
8. Restart the USB Key by disconnecting and reconnecting the USB-C cable. The LiFi connection will now be established.
9. If you changed your computer’s IP configuration, don’t forget to set it back to its original values. The green status LED on the USB Key will remain ON.

4.6 Legal tab

The Legal tab displays the End User License Agreement for using the device and associated software.

4.7 Advanced tab

The advanced tab is divided in 3 sections:

- Firmware Upgrade
- IP Settings
- System Settings.

4.7.1 Firmware upgrade

This screen displays the current firmware version and offers the possibility to update the firmware to a newer version. The latest firmware version can be downloaded via: <https://www.signify.com/global/innovation/trulifi>

Store the latest firmware file in a convenient location, e.g. Desktop. Select [**Choose File**] and browse to the location where the new firmware version is saved. Select [**Upgrade**]

Note: The upgrade takes approximately 2 minutes. **Please wait at least 2 minutes** before rebooting the system manually.

Once the upgrade process has started, you will be redirected to the “Login” page automatically.

In case a non-valid file is selected to upload, the following error message will be displayed.

4.7.2 IP Settings

This screen displays the IP settings of the device. Either static IP addresses can be configured, or the device can be configured in DHCP mode (=Default). In case dynamic IP addressing is used, the device will connect to your DHCP server to configure the IP settings automatically.

The screenshot shows the 'trulifi by @ignify' web interface. The left sidebar has a menu with 'Advanced' selected. The main content area is titled 'Advanced / IP Settings / Overview'. It contains the 'IPv4 Settings' section with fields for 'IPv4 Mode' (radio buttons for DHCP and Static), 'IP Address', 'Subnet Mask', 'Gateway', and 'DNS Server'. Below this are two sections for 'IPv4 Additional Address 1' and 'IPv4 Additional Address 2', each with 'IP Address' and 'Subnet Mask' fields. At the bottom right is a green 'Update & Reboot' button.

If DHCP is enabled, additional static IP addresses can be configured in case the device needs to be accessed from a different subnet.

In case of static IP settings, the fields for IP address, subnet mask, Gateway and DNS server must be filled in manually.

Note: If you are using DHCP, it is recommended to use *DHCP address reservations* in your DHCP server. This gives you control over which IP address will be reserved for each MAC address, making it easier to identify your USB keys and Access Points.

To disable the [**IPv4 Additional Address 1**], please enter [**0.0.0.0**] in the field [**IP Address**]. Select [**Update & Reboot**] after completing the configuration.

4.7.3 System Settings

This screen displays the System Settings of the device.

The screenshot shows the 'trulifi by @ignify' web interface. The left sidebar has a menu with 'Advanced' selected. The main content area is titled 'Advanced / System Settings / Overview'. It contains the 'System Reboot' section with a green 'Reboot' button. Below it is the 'Factory Reset' section with a 'Factory Reset Password' field and a green 'Factory Reset' button.

The “System Settings” page has provisions to perform a System Reboot and a Factory Reset to restore the initial factory setting at time of shipment. When using the Factory Reset option, all system configuration settings will be reset to their default values. This includes:

- The LiFi encryption password (see section 4.5)
- The Wen configuration password (see section 4.5)
- The IP settings (see section 4.7.2)

The password required for the factory reset is:
trulifi%2019

4.8 Forgot password

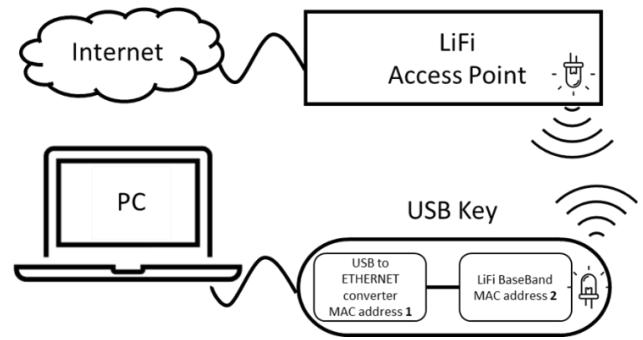
On the Trulifi 6002.22 USB Key, the password to access the web configuration system can be reset to its default value in case you forgot it.

1. In the first login/password window, click on “Forgot Password?” to navigate to the reset password window.
2. Enter the product serial number. This can be found on the back side of the Trulifi 6002.22 USB Key or on the top cover of the Trulifi 6002.1 or Trulifi 6002.2 Access Point.
3. After entering the serial number, click on the **[Reset Password]** button.
4. If the serial number is correct, the login password for the Web configuration system will be reset to its default value (see section 4.2) and the login/password window will appear. If the serial number is incorrect, you will be prompted to enter the serial number again.

The LiFi encryption password and other settings will not be affected by this reset.

4.9 USB key MAC address

The PC will recognize the USB key as an Ethernet interface (network adaptor). The USB key has two MAC addresses: One for the USB-to-Ethernet converter and one for the LiFi baseband. This is depicted in the below schematic diagram.



MAC Address 1: This is the MAC address which the PC sees as Ethernet Interface

MAC Address 2: This is the MAC address which the LiFi Access point sees as Ethernet Interface

The MAC address is also printed on the USB-key. There may be either 1 or 2 MAC-addresses printed on the USB key.

- In case 1 MAC address is printed on the USB key this

will be MAC address 1 (USB to Ethernet convertor).

- In case 2 MAC addresses are printed on the USB key; MAC address 1 applies to the USB to Ethernet convertor and MAC address 2 applies to the LiFi Baseband.

4.10 Factory Reset button

On the bottom of the 6002.22 USB Key is small hole with a reset button to perform a factory reset to the device.

A factory reset may be needed in case you lose the password of the Web configuration system, or you cannot retrieve the IP address of the USB Key.

The reset button can be accessed by inserting an open paperclip straight into the hole. You will feel a click indicating that the button is being pressed.

To factory reset your USB Key, connect it to your laptop using the USB cable. Keep the reset button pressed for 5 seconds to erase all settings and return to the factory defaults (see section 4.7.3).

