User Manual Basic One

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In this document, all gender-specific forms always refer to m/f/d.

Table of Contents

1 Information Basic One

This document describes the safe operation and handling of Basic One.

1.1 Introduction and Information of the Document

This manual is intended to help you familiarise yourself with the Basic One VCI to operate the device safely, properly and economically. Observance of the documentation helps to avoid hazards, to reduce maintenance repair and downtimes, to increase the reliability, the service life of the system and the connected peripheral devices.

- Keep this document freely accessible for your employees.
- Read this document before starting your work.
- Observe the notes, tooltips and instructions for action.
- The documentation must be supplemented with instructions based on existing national regulations (data protection) by the operator of the system.
- Illustrations are for general understanding and may differ from the actual design due to further development of the unit and the software.

1.2 Validity range of the Document

This document is valid for the Basic One VCI.

Product name	**Article number**
Basic One Basis VCI	AR10020771

1.3 Scope of delivery

Basic One Device	AR10020771
User Manual Digital	included
USB Cable	AR10020271

1.4 Further available Equipment

Basic One Power Supply by USB	AR10019219

1.5 Contact Information Manufacturer

If you have any questions about training on our products, please send us an e-mail with your customer number, company address and call-back number. Your ACTIA IME contact person will get in touch with you as soon as possible.

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2 About User Manual Basic One

2.1 Use and purpose of the manual instructions

The user manual is intended for the end user. The manual helps you:

- To set up and use the product.
- To avoid hazards.
- To prevent downtime.
- To ensure or increase the service life of this product.

Instructions about hazards and safety regulations, as well as the information in the user manual must be observed without exception. This is important for the proper and safe use.

2.1.1 Images

Due to further development of the Basic One, there may be deviations in some illustrations. Some of the illustrations in the operating instructions do not contain any vehicle data or pseudo data to ensure the privacy of the customers. The vehicle data within the illustrations will be changed if necessary. As soon as a new release of the software is out, adjustments may be made within the operating instructions.

2.2 Validity of the Operation Instructions

These operations are valid only for the following product:

- Basic One

The variant of the devices is specified on the type plate.

2.3 Type Plate & Serial number

The type plate is attached to the housing. The following information is presented on the type plate:

- Product model name: AIME04044
- Module: ESP32-WROOM-32D
- Certification
- Variants of the basis device/ revision AR10020xxx/A
- Product name: Basic One VCI
- Article number /device revision: AR10020771/G
- SN number: (S/N)81xxxxx
- Production date: ww/yy

Figure 1) Type plate Basic One (example)

The mandatory certificates that must be affixed to the unit can be found in Figure 1.
Further certificates see (chap. 12.4 WLAN Certifications).

2.4 Qualified Personnel

Installation may only be performed by qualified personnel. Qualified personnel are persons with solid education in the area, who are also aware of the possible hazards and risks.

2.5 Guidelines on Use, Liability, and Testing

2.5.1 Warrant & Disclaimer

Modifications, conversions, manipulations, or other interventions at the Basic One VCI are not permitted and will result in the loss of warranty claims if these have been negotiated. The warranty is provided within the scope of the statutory provision with the express right to rectification.

In the event of changes to the Basic One VCI by the user (operator) or third parties, liability for the resulting consequences is cancelled.
The operators and the operating personnel are responsible for the intended and legal use of the Basic One VCI and for compliance with the legal data protection regulation.
The Basic One VCI has been carefully developed and tested by ACTIA IME GmbH to the best of its knowledge and belief.

ACTIA IME GmbH warrants or guarantees the software, mechanical equipment, materials, and technical data of the Basic One VCI for a period of 2 years. For cables this period is 6 months.

The company does not guarantee that the hardware and software will work properly in all applications when retrofitted to an existing system. Therefore, any liability for direct and indirect damage resulting from the operation of the hardware and software and the usability described in the manual is rejected.

Repairs may only be carried out by authorised specialist personnel. In the event of unauthorised repairs or modifications on the part of the user (operator) or third parties, the liability for the resulting consequences is cancelled. All changes to the device can lead to the loss of the warranty. To avoid this, comply with the following instructions:

- Do not perform any independent modifications or tamper with the device!
- Only use proper and authorized materials.

3 For your Safety

The User manual provide instructions about safety.
To avoid personal injury, environmental damage or property damage, follow all instructions.

3.1 Safety instructions and warnings

This chapter contains information about the safe use of Basic One VCI and the maintenance required to insure the safe state of Basic One VCI.
The chapter also contains warning messages for actions that can be hazardous.

3.1.1 Structure of warnings

Warnings are structured as follows:

WARNING	
	**Type and source of danger** Explanation about the type and source of danger • Measures and prohibitions to avert the danger.

A safety notice contains the following elements:

- Signal word - classification of danger.
- Pictogram - pictorial representation of the danger.
- Nature and source of the hazard.
- Possible consequences of the hazard.
- Measures and prohibitions to avert the danger.

WARNING - possible hazards, serious injuries	
	**Nature and source of the danger!** Possible consequences of the hazard, • ... Measures and prohibitions to avert the danger. Risk of serious injuries.
CAUTION - minor injuries	
	**Nature and source of the danger!** Possible consequences of the hazard, • ... Measures and prohibitions to avert the danger. Risk of slight injuries.
NOTE	
A note contains valuable tips & tricks for the user of the system. Risk of property damage.	

3.2 Proper and intended use

The operator and the operating personnel are responsible for the intended and legally permissible use of the Basic One VCI. Modifications, conversions, or other interventions in the system are not permitted.
The Basic One is intended solely for maintaining vehicles. It is used for vehicle diagnostic communication in workshops, production, facilities, and warehouses.
The general safety regulations for working with electric voltage must be strictly observed.

3.3 Non intended use (foreseeable misuse)

Relevant specifications and regulations must be observed.

ATTENTION – Material damage	
	Risk of property damage.

- Opening Basic One.
- Careless handling of Basic One.
- Careless handling of USB cables used with Basic One.
- Use of defective cables.
- Use of unauthorized cables.
- Exceeding the permissible operating voltage of Basic One .
- Use of incorrect regional settings in WiFi mode.

Use other than under the specified conditions and requirements laid out by the manufacturer ACTIA IME GmbH in its technical documents, data sheets and in other specific regulation.

3.4 Warnings

WARNING - possible hazards, serious injuries	
	The general safety regulations for handling electrical voltage **must** be observed! **Serious injuries due to improper maintenance work!** Improperly performed maintenance work can impair the safety of the device and cause serious injuries. • Only allow authorized and instructed personnel to perform maintenance work.

WARNING - possible hazards, moderate injuries	
	**Hot surfaces!** **Danger from burns!** During operation, the surfaces of the components can heat up. You can be burnt on contact. Before all work: • Check temperature! • Do not touch hot surfaces! • Allow components to cool down.

WARNING - possible hazards, serious injuries	
	The general safety regulations for handling electrical voltage **must** be observed!

ATTENTION – Material damage	
	**Please only use the specified and authorised USB cables.** When connecting the Basic One VCI and the USB-C cable, ensure that the cable is inserted into the socket without applying pressure. Do not pull on the lower end of the cable.

ATTENTION – Warranty	
	**It is forbidden to open the housing, as this will invalidate the warranty.** There are no serviceable parts inside. Don't use the device if its damaged, please contact the manufacturer.

NOTE
Possible material damage due to unsuitable cleaning agents! Incompatible and aggressive cleaning agents can damage the surface or the components. • Only use a moist cloth for cleaning the device. • Do not use hard sponges! • Only use cleaning agents which are compatible with the surfaces and the materials. • Do not clean the interior of the device.

3.5 Limit of Use

Observe the following requirements concerning the operating environment and the infrastructure.

Operating Environment facilities	**Limit of use**
EX areas (Electrical equipment in hazardous areas)	Not authorized for EX areas
Temperature	Operation and Transport & storage Operational: -20…+50C° Storage: -40…+85C°

Table 1) Limit of use of Basic One VCI

3.6 Personal Protective Equipment

PPE is not required when operating the Basic One VCI.

4 Transport

NOTE
Possible material damage due to strong humidity! The device and the materials can be damaged by strong humidity and wet conditions. • Protect the device from strong humidity and wet conditions.

Basic One VCI will be secured, loaded and transported. Observe the following rules when preparing Basic One VCI for transport:

- Properly pack the device for transport.
- Do not throw the packed device.
- Comply with the permitted ambient temperatures and humidity.

4.1 Packaging

There may be different packaging units for the components, always ensure that the packaging is opened in the correct direction so that the internal component is not damaged.
The instruction below is an exemplary representation of an instruction; there may be differences between the components.

1. Open the packaging box.
2. Refer to the enclosed "Leaflet".
3. Pull the top packaging protection upwards by both notches.
4. Carefully pull out the component upwards.

NOTE
Protect the components from moisture, water, acid, solvents, and dust.

NOTE
Do not drop the components.

4.2 Storage

Basic One VCI is approved for protection class IP 42 (Chap. 3.5 Limit of use).

5 Design and Function Basic One VCI

The Basic One is a diagnostic vehicle communication interface as a hardware tool developed by ACTIA IME for maintenance of vehicles.
The device will be used for vehicle diagnostic and can operate on 12V and 24V vehicles.

The device is available with WiFi or without WiFi.
It can be activated later the device, please contact your ACTIA dealer for this.

The electronic unit realizes an interface allowing any standard PC to communicate with the on-board electronic of a vehicle for the purpose of:

- Reading failure codes.
- Retrieving monitoring data of on-board sensors .
- Test of on-board actuators.

Figure 2) Design of Basic One VCI

1	OBD Type B connector	2	Transparent sealing (2 LEDs at the bottom
3	USB-C slot		

The Basic One has no internal power storage (no batteries, accumulator, supercapacitor or similar). The unit can be supplied from vehicle battery. In this case, the device is fully functional including all vehicle interfaces and wireless connectivity.

NOTE
The Basic One must draw power from the Vehicle!

5.1 Design

The Basic One VCI uses a plastic housing with OBD Type B connector and a USB-C slot with a rubber protector against dirt. Two status LEDs are placed on the button behind the transparent sealing.
It comprises the following characteristics:

- The main colour is black.
- It consists of two main shells.
- Rubber protector to protect the USB-C Slot against dirt.
- RGB led to indicate the device state.

Offers the following connectors/slots:

- USB-C
- OBD connector

5.2 Communication Interfaces

5.2.1 Vehicle Communication Interface

The Basic One can communicate with the vehicle via communication interfaces.

Vehicle communication interface	**Description**
CAN (ISO 11898-2:2015)	CAN Lowspeed CAN Highspeed

Table 2) Communication Interface of Basic One VCI

5.2.2 Host Communication Interfaces

Basic One VCI can be used from a USB port, to connect.

- USB-C cable

Basic One VCI can be used from a mobile device via WiFi 802.11 b/g/n.

- The WLAN interface supports 2.4 GHz.

5.3 Display elements and control elements

This chapter shows how the LEDs on the housing look like and it highlights the LED behaviour during different kinds of usage.

5.3.1 Functions Indicator LEDs

The Basic One shows 4 colour signals with two LEDs on the bottom to indicate the device state.

LED behaviour	**Description**
Static green	Connected via USB
Flashes green	Not connected and no WiFi activated/configured
Static blue	Connected to a WiFi Network
Flashes blue	Not connected, WiFi active and configured to connect to infrastructure
Flashes orange, green, red	Find it function
Static red	An Error occurred during boot

Table 3) Function Indicators Basic One, Light Emitting Diodes

5.4 Hardware Interfaces

5.4.1 WiFi

The Basic One has a WiFi module featuring 802.11 b/g/n with a single stream.

5.4.2 USB-C

The device will provide a USB-C port. The USB-C port is protected from dust and dirt by a rubber cap.

Figure 3) USB-C port with protection

1	Rubber cap	2	USB-C Port

NOTE

Cause of internal hardware limitations it is not possible to measure Voltage on OBD Pin 8 if WLAN is active and connected.

5.4.3 Cable

The cable must comply with at least the USB 2.0 standard; the supplied cable is a USB 3.2 Gen1 cable with a transfer rate of up to 5 Gbit/s with the USB-A connector type. The cable has a maximum length of 3 metres.

ATTENTION – Material damage	
	**Please only use the specified and authorised USB 2.0 standard cables.** When connecting the Basic One VCI and the USB-C cable, ensure that the cable is inserted into the socket without applying pressure. Do not pull on the lower end of the cable.

5.5 Supported vehicle communication APIs

The Basic One supports the following diagnostic APIs.

- SAE J2534

The APIs mentioned in the bullet list before can be used by an application according to the given standard.

6 Installation Procedure

6.1 Software Installation

To put the Basic One VCI into operation you'll have to install the Basic One application at first.

1. To install **start** the Windows installation process.

NOTE
The application needs to run proper Windows 11/10 (Chap. 11 Technical details).

The Basic One Windows installer includes the Basic One software image and J2534 components.
During the installation process the installer will perform the following steps:

- Installation of J2534 files.
- Installation of redistributable packages.
- Windows registry setup.
- Driver installation.
- Windows firewall setup.

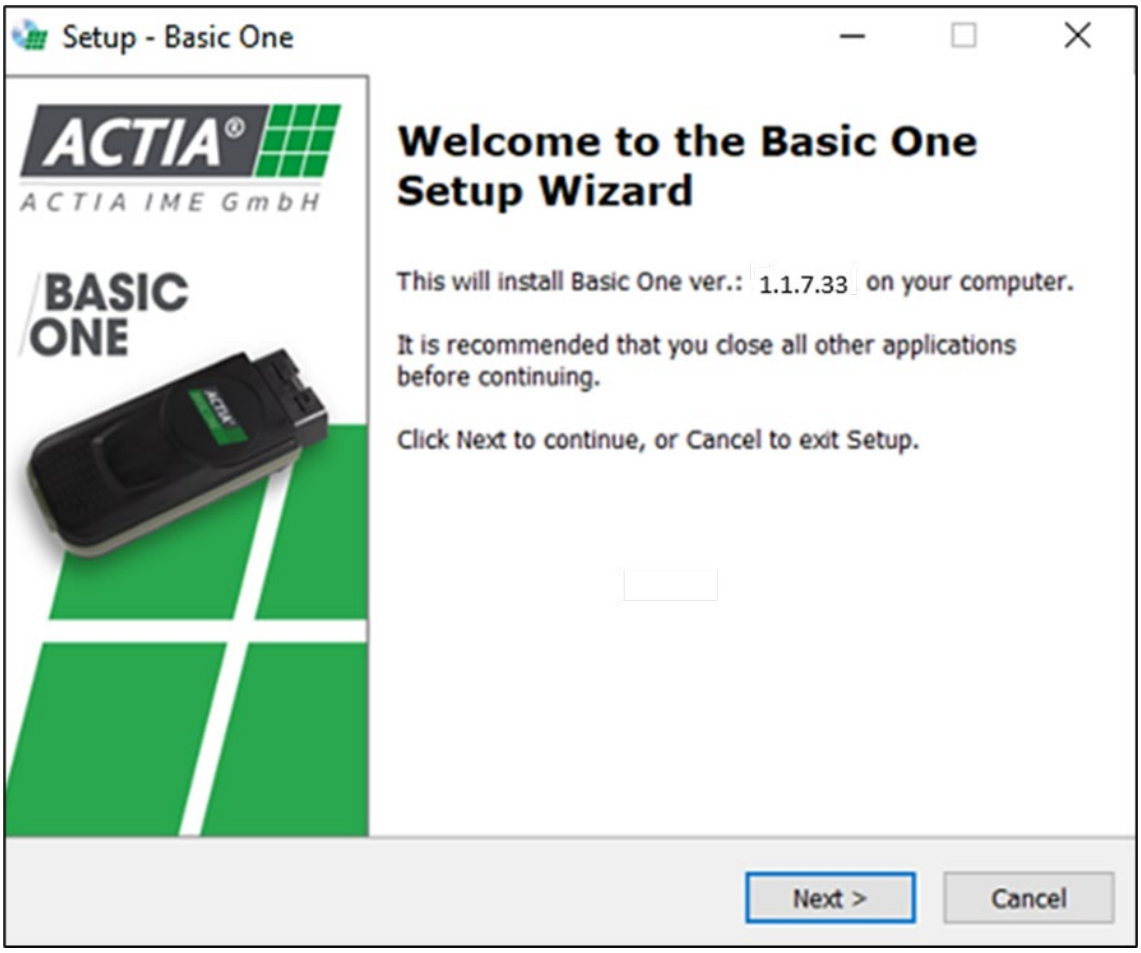

Figure 4) Basic One – Setup Welcome

2. Click [**Next]** to follow the installation instructions.

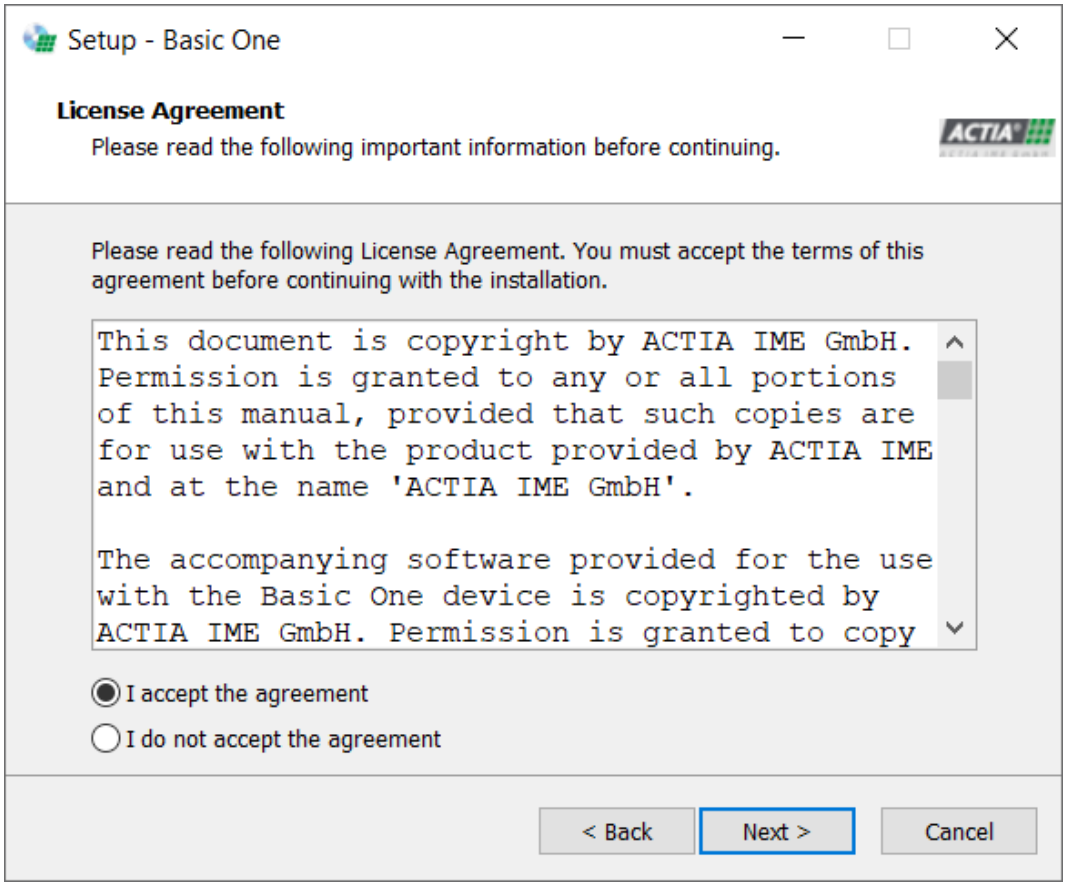

Figure 5) Basic One - installer license agreement

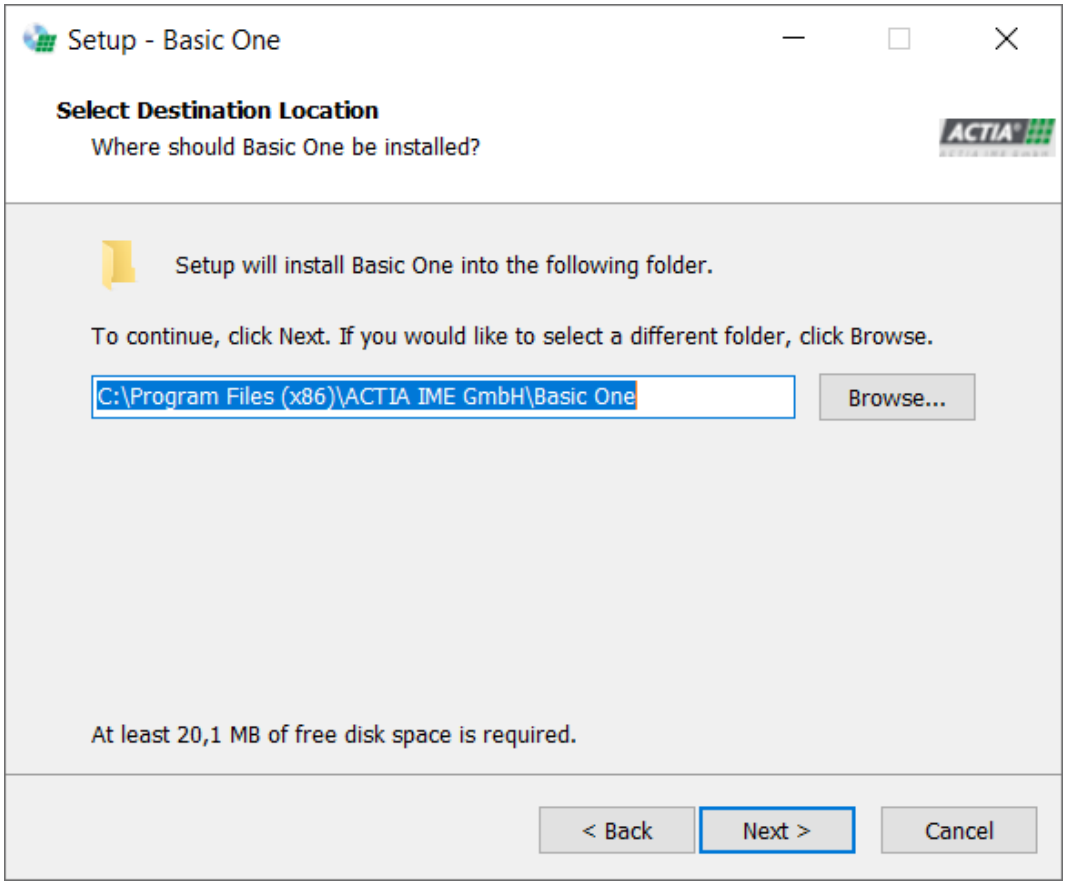

Figure 6) Select program folder for installation

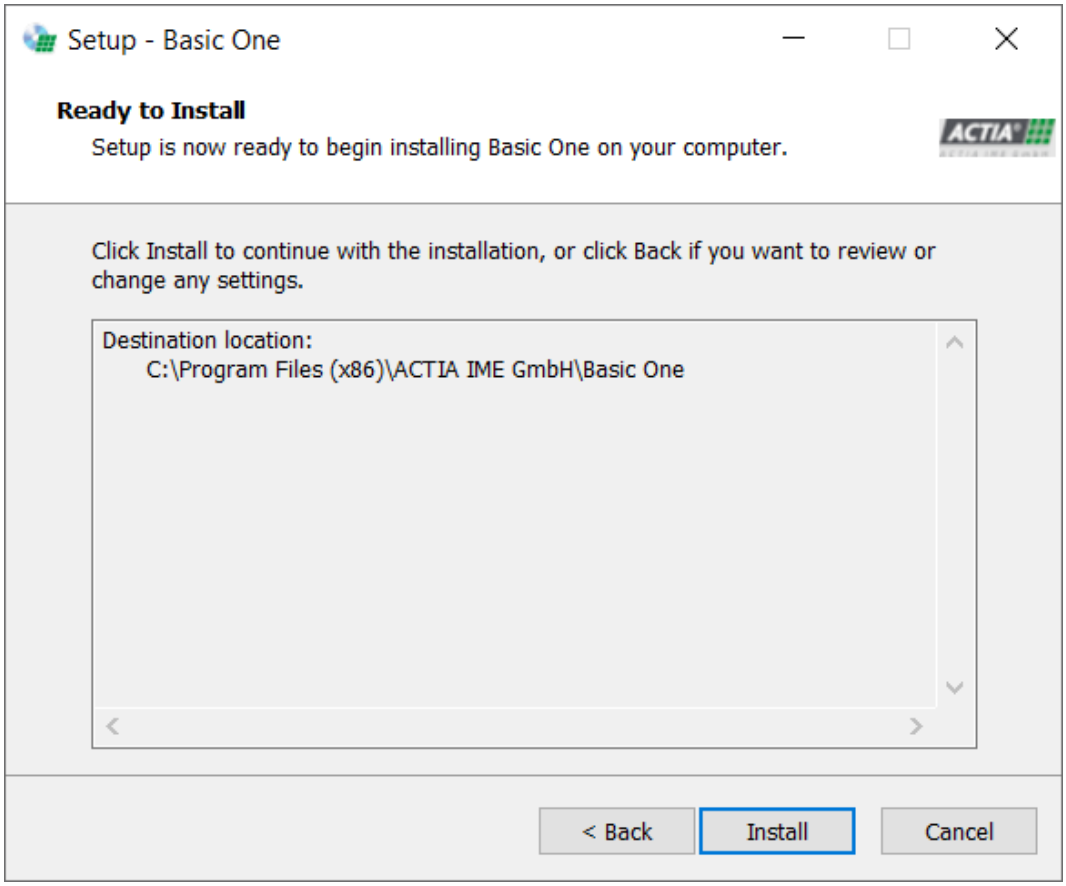

Figure 7) Basic One – Setup installing.

3. Click [**Install]** to continue and complete the setup.

NOTE
If you cannot start the application, it is possible that the Microsoft.NET Runtime - 5.0.17(x86) is not installed. In this case, the application will open a pop-up window to inform you and will start the installation if you confirm it.

6.2 Check-up Tool

To see which Basic One is installed, open the Basic One VCI Check-up Tool.

1. Click the **[Refresh State]** button.

To refresh the application, you can also press the shortcut **[F5].**
The Check-up Tool connects to the first discoverable device. To retrieve the information from only one unit, make sure that the other units are not connected or switched off at that time.

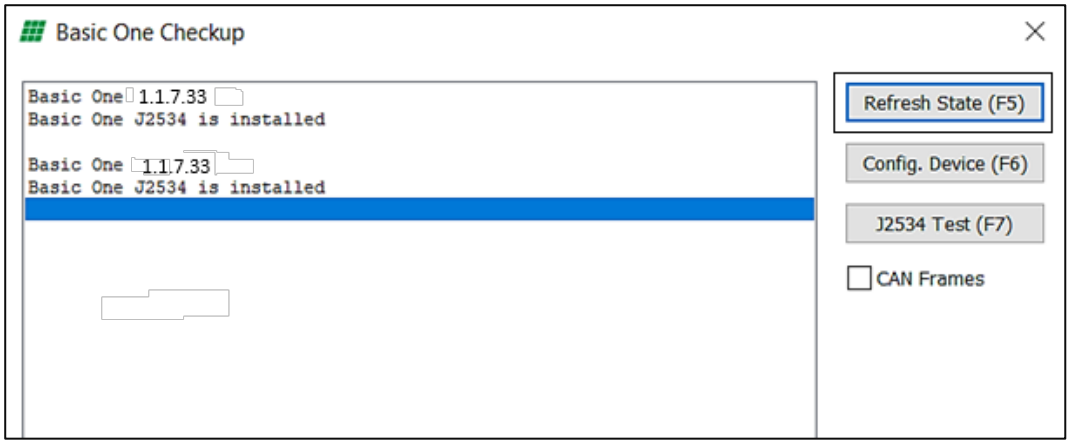

Figure 8) Check-up Tool - Refresh State

To see information about the actual configuration of the device, open the Basic One VCI Check-up Tool.

2. Click the **[Config Device]** button.

To see information of the configuration, you can also press the shortcut **[F6].**

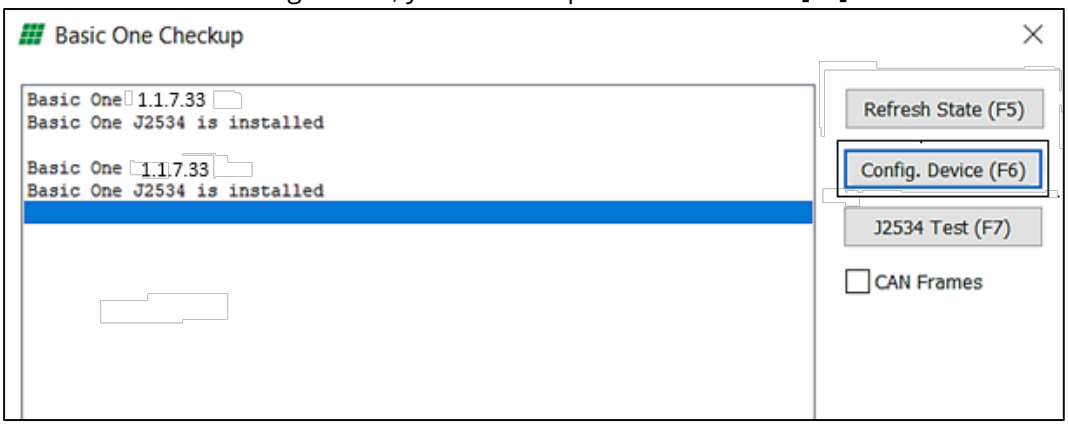

Figure 9) Check-up Tool - Device Config.

To see which firmware, DLL and API is installed of your Basic One device, open the Basic One VCI Check-up Tool.

3. Click the **[J2534 Test]** button.

To show which firmware, DLL and API is installed, you can also press the shortcut **[F7].**

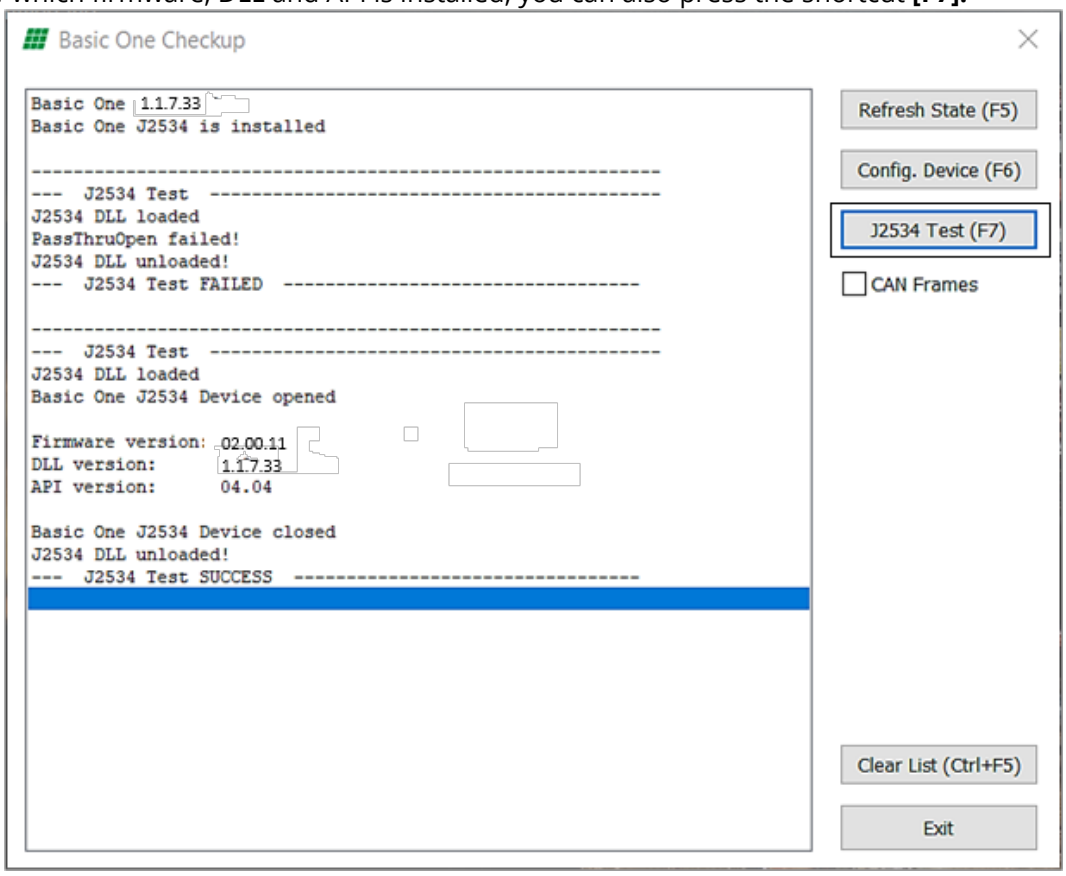

Figure 10) Check-up Tool - J2534 Test

4. To delete the list, enter the **[Clear List]** button.

To clear the list, you can also press the shortcut **[Ctrl+F5].**

5. To close the Check-up Tool, enter the **[Exit]** button.

6.3 Hardware Installation

NOTE
Before you can use the Basic One hardware from a Windows PC you have to install the Basic One application.

To install the hardware, follow the instructions given below:

1. Connect the Basic One to the vehicle using the OBD connector.
2. Connect the Basic One to your PC with the USB-C cable.
3. The LED indicates when the VCI is connected.

The device is ready to communicate when the PC communication status LED lights up green.
When connecting a Basic One device for the first time via USB the Windows device driver is installed. This driver is part of the software installation (which must be done before connecting the device for the first time).

7 Operating the Device

When you start the Basic One application, the Basic One control interface opens. In this interface, you can configure the Basic One, change the interface language, configure the WiFi settings, install a new firmware update, or perform a factory reset.

7.1 Connect the device

The device can be used with USB or WiFi, for use via WiFi you must have configured the WiFi settings beforehand, see (chap. 7.4 Network – Configure you're WiFi).

7.2 Start - Device Configuration and Management

If you select **[Start]** you can see the actual information of your selected device, serial number, how it is connected, the status of the device, the device version, and the driver version.
You can also see the **[System information],** if you choose further interaction, you must select your device.

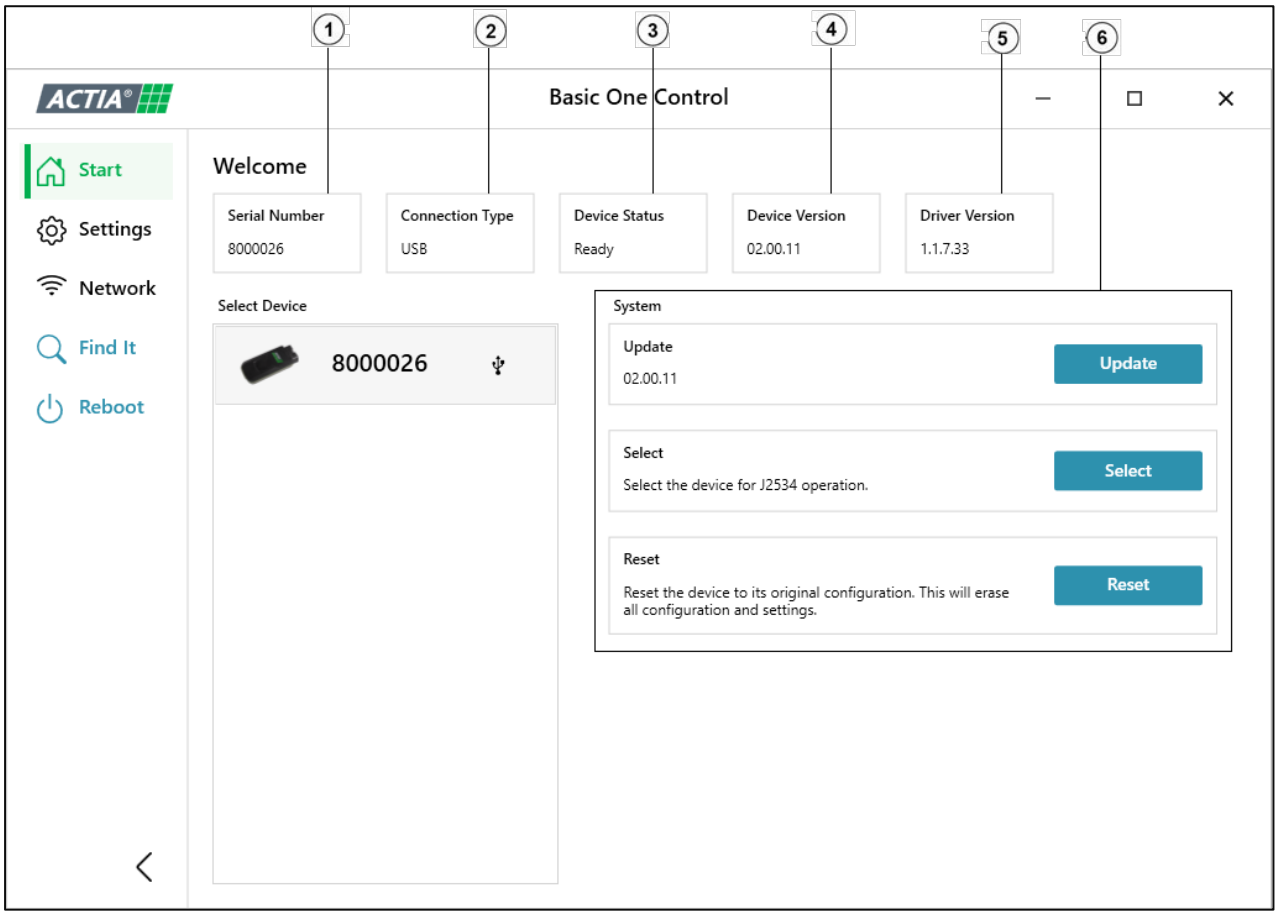

Figure 11) Basic One Control– Start

1	Device-serial number	2	Device – connection type
3	Device - status	4	Device – firmware version
5	Device – driver version	6	System information

NOTE

You must always select the device before configuring settings **[Select Device].**

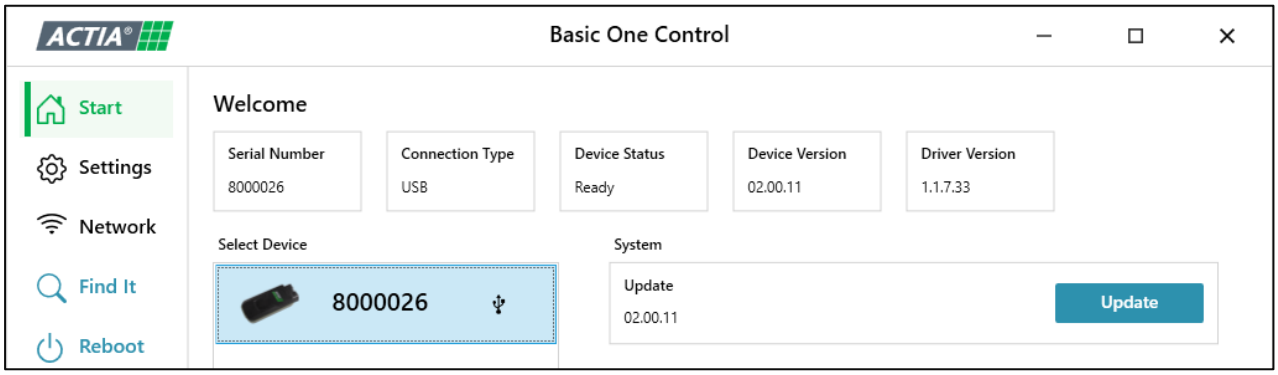

Figure 12) Basic One Control – selected device

Once you have selected the device in the device list, you can see the actual [**System]** information from the selected device and update it to a new version, select the API, or perform a factory reset.

7.2.1 Firmware Update

The 'Attention' symbol next to the [Update] button on the Start page indicates which firmware version is installed and that a new version is available.

1. Select the desired device.

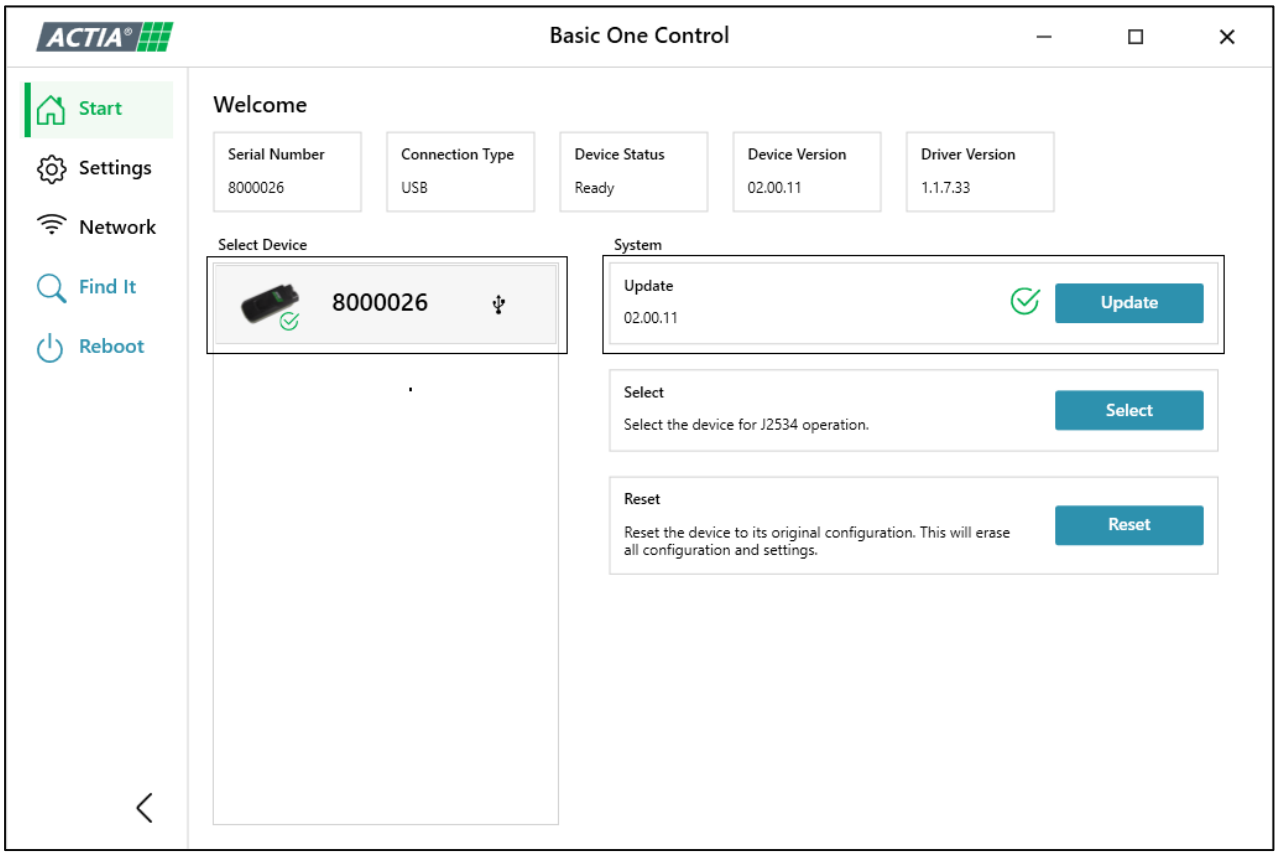

Figure 13) Basic One Control -Firmware update

2. Click the **[Update]** button.

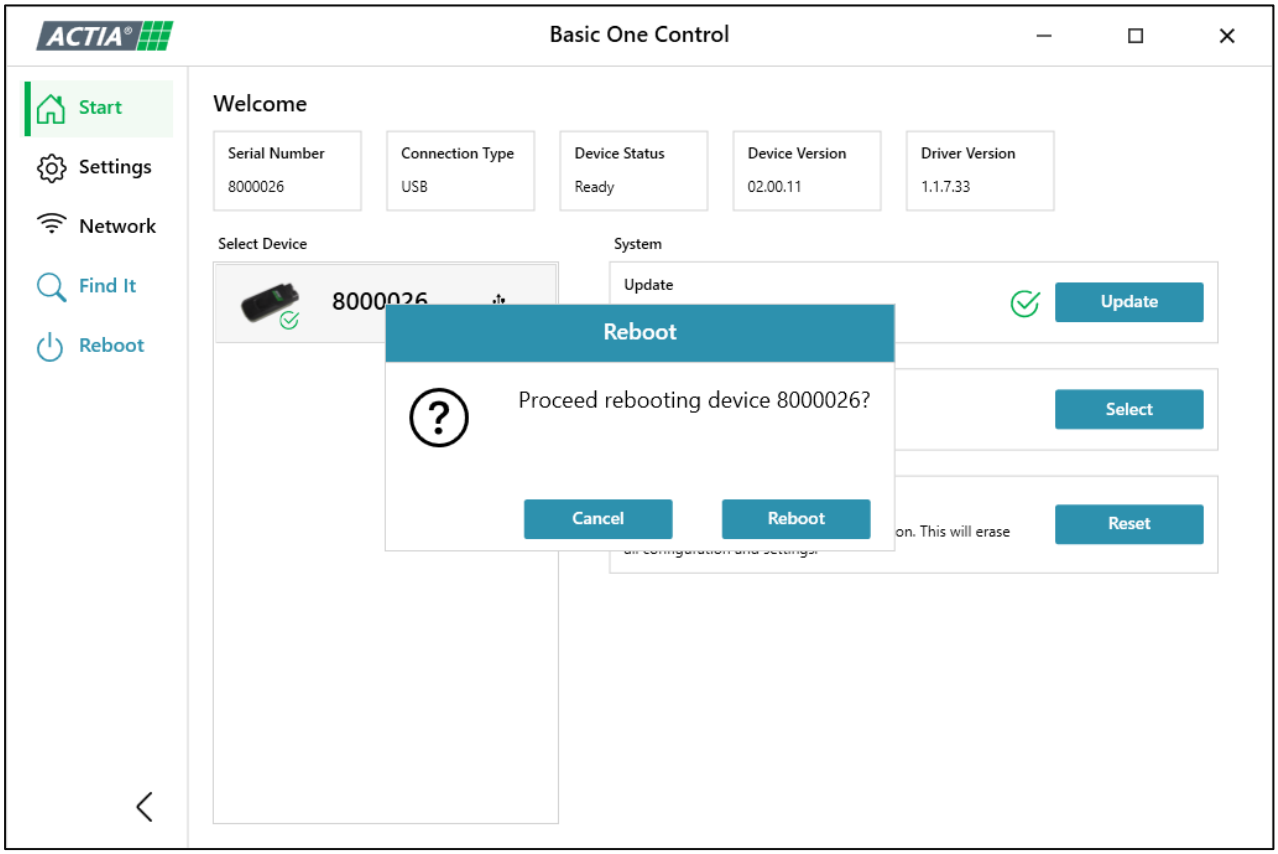

Figure 14) Basic One Control - Update firmware

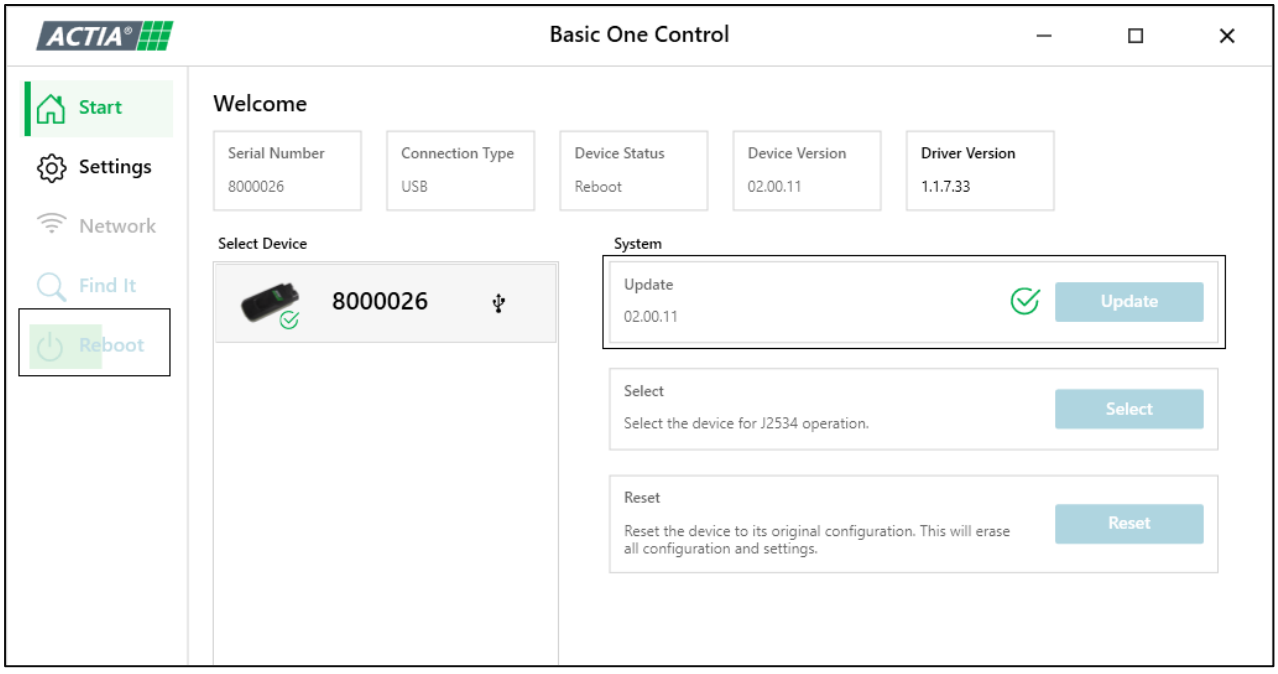

Figure 15) Basic One Control - Update process

The update starts; the installation process is displayed with a green bar on the left side.
The installation of the firmware is complete; the new version number is shown in the upper dialogue field **[Device Version].**

7.2.2 Select device API

You can also select the API for your device.

1. Select the desired device.
2. Click the **[Select]** button.

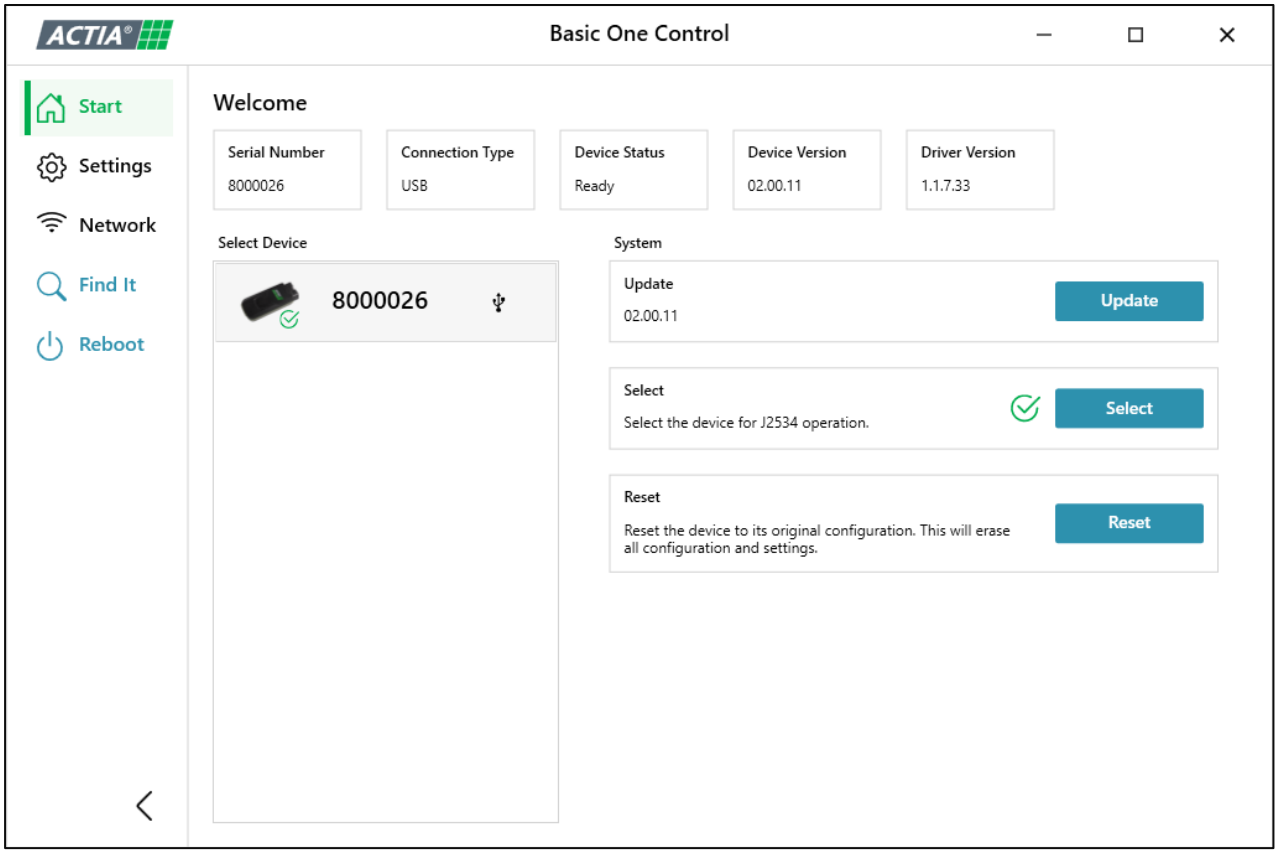

Figure 16) Basic One Control - Select API

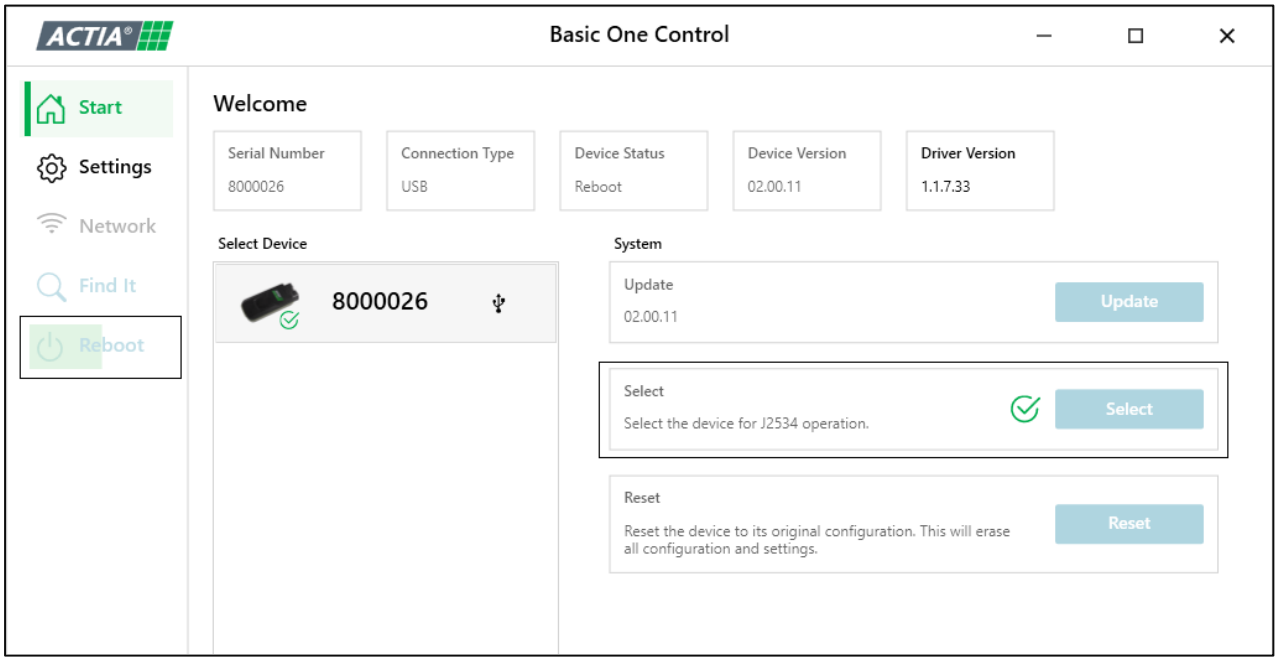

Figure 17) Basic One Control - API J2534

API J2534 is selected.

7.2.3 Factory Reset

A factory reset reverts the device configuration to its original values and restores the factory default settings.

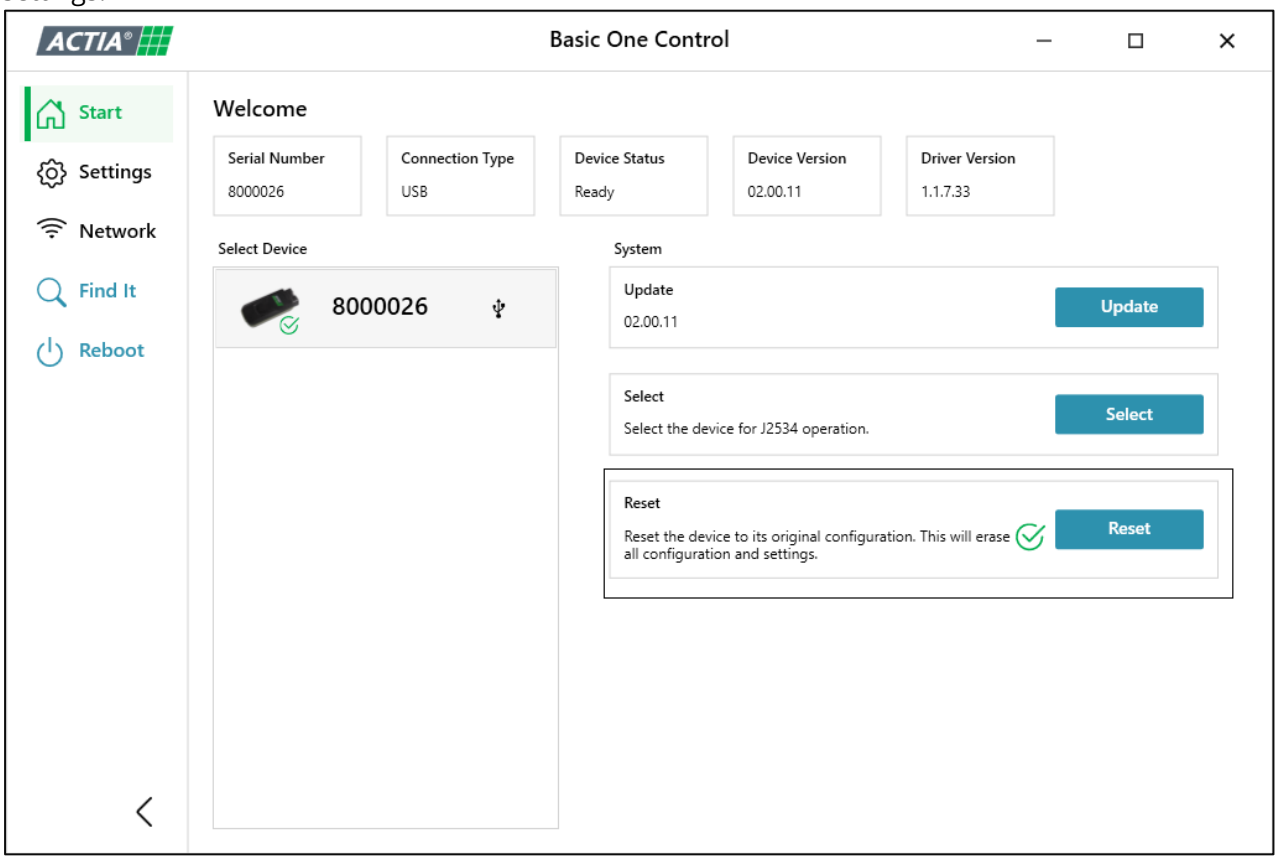

Figure 18) Basic One Control- Factory Reset

1. Click the **[Reset]** button.

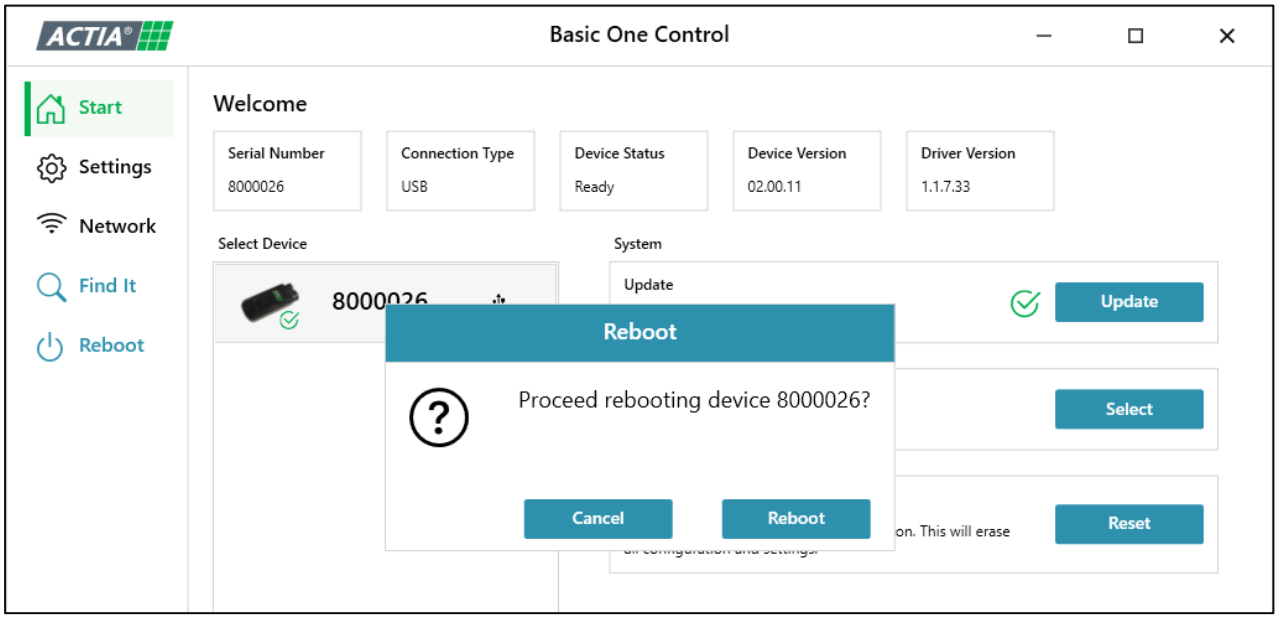

Figure 19) Basic One Control- Factory Reset Reboot

The Basic One is not visible for a short time. The Basic One is now reset to factory settings.

NOTE
If you perform a factory reset, the WiFi profile will be deleted.

7.3 Settings - Change Language

NOTE

You must always select the device before configuring settings **[Select Device].**

To change the language settings or the country code, go to the **[Settings]** and select your language from the drop-down menu. The following language settings and countries have been created: France, Germany, Japan, United Kingdom, USA.

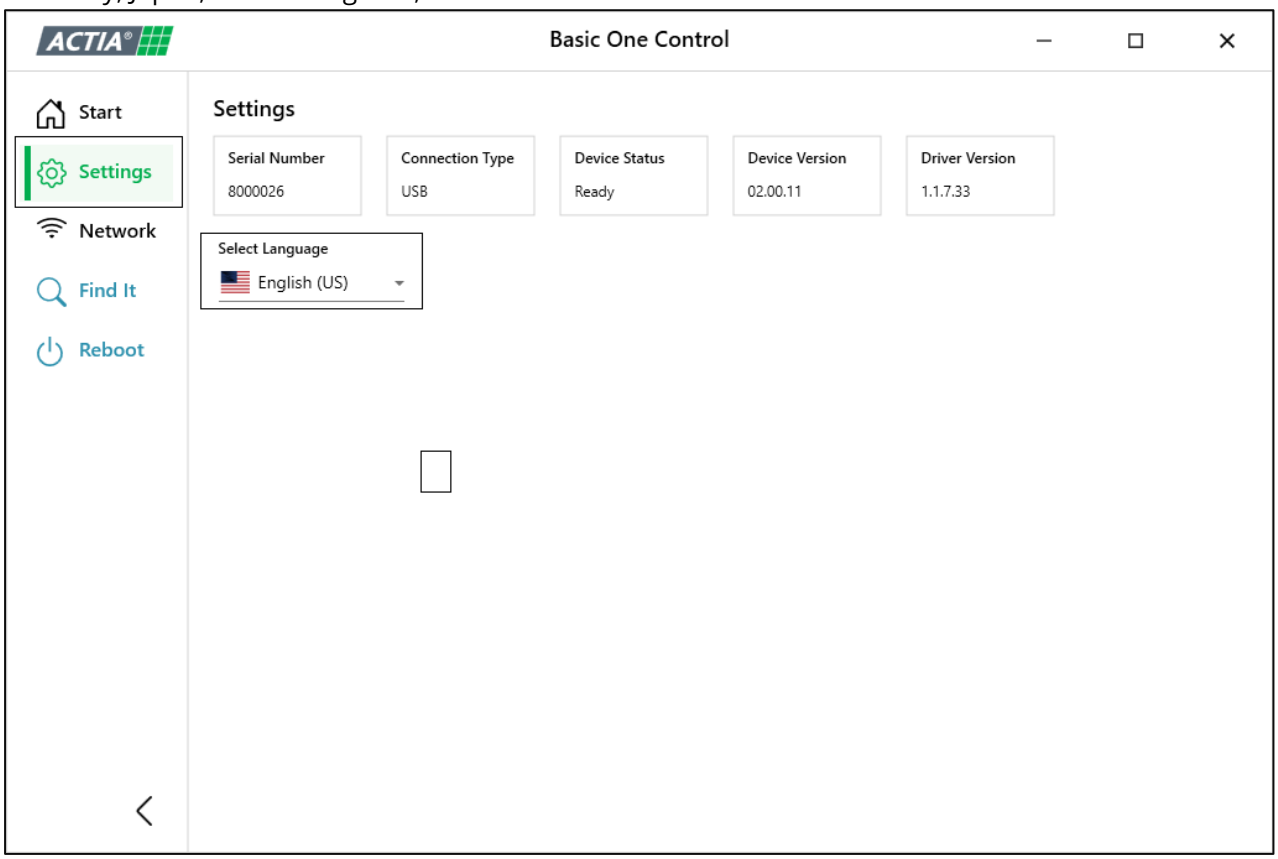

Figure 20) Basic One Control - Settings

1. Select a language.
2. The language settings are applied.

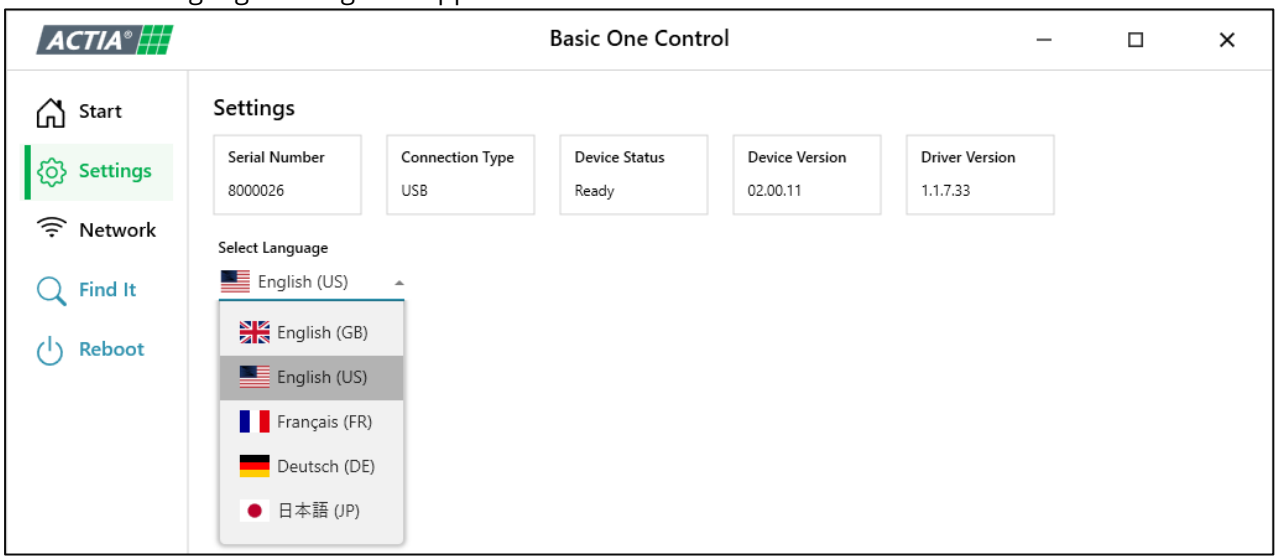

Figure 21) Basic One Control - Language settings

7.4 Network - Configure you're WiFi

NOTE
You must always select the device before configuring settings **[Select Device].**

To configure the WiFi infrastructure and the Basic One WiFi IP select **[Network].**

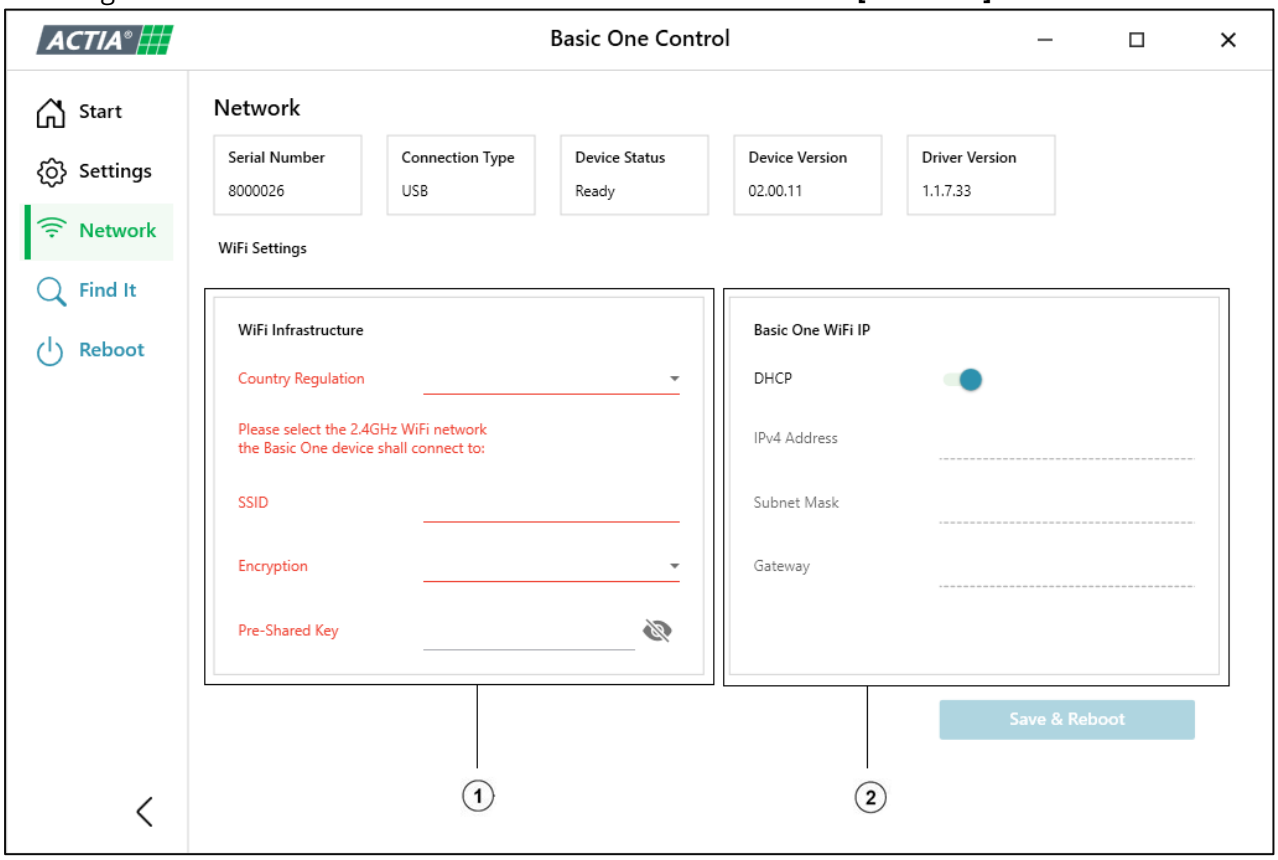

Figure 22) Network – WiFi settings

1	WiFi Infrastructure	2	Basic One WiFi IP

Description WiFi Infrastructure settings

Value	Description
Country Regulation	The country regulation defines the regulatory country for which the wireless radio is currently configured
SSID	Name of WiFi profile (Wireless Network name).
Encryption	WiFi encryption type WPA, WPA2/WPA3
Pre-Shared Key	Pre-Shared key for WPA-PSK, at least 8 characters

Table 4) Description WiFi Infrastructure settings

NOTE
The fields are red and cannot be saved if the criteria are not satisfied, as soon as the criteria are satisfied, they change colour to blue.

7.4.1 WiFi Infrastructure

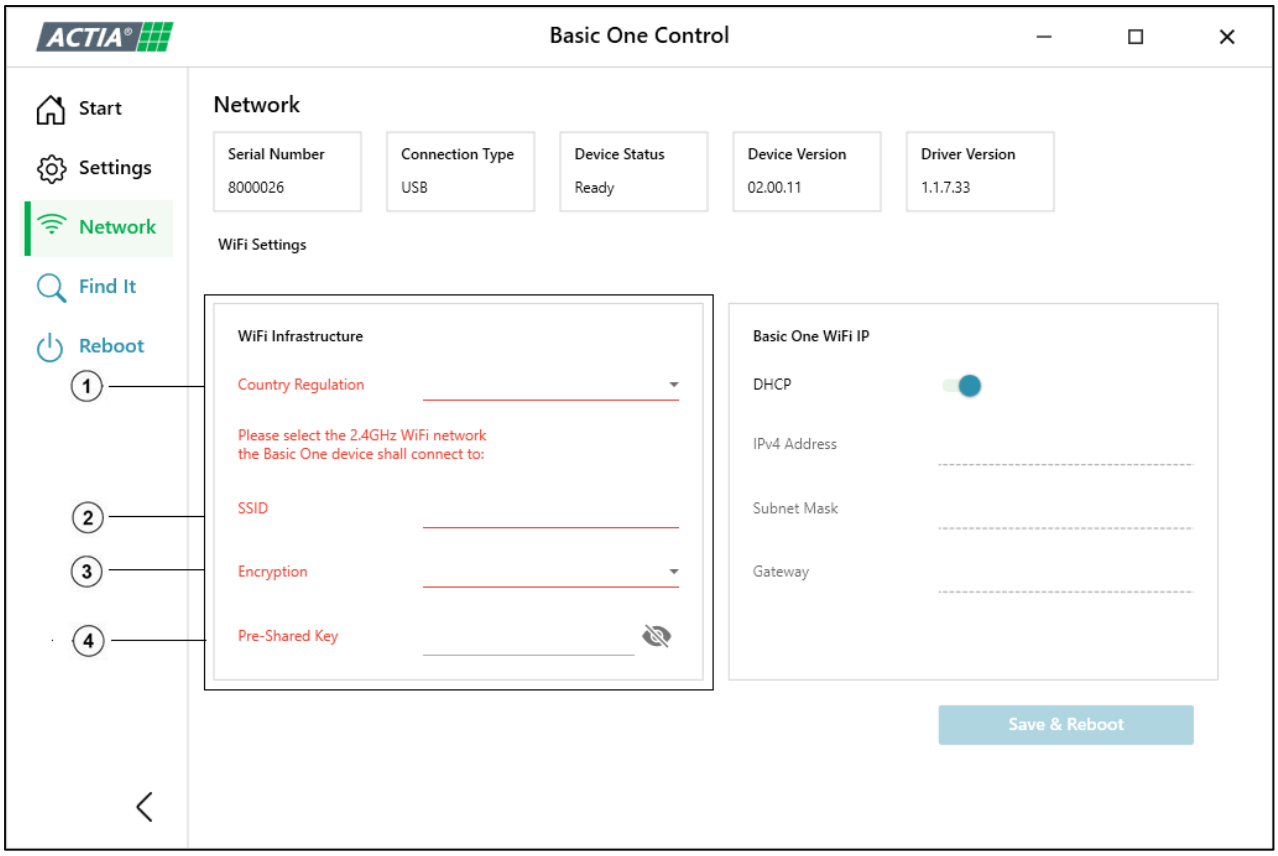

Figure 23) Network- WiFi Infrastructure

1	Country regulation	2	SSID
3	Encryption WPA2/WPA3	4	Pre-Shared Key min.8 char.
5	Device – driver version	6	System information

NOTE

The fields are red and cannot be saved if the criteria are not satisfied, as soon as the criteria are satisfied, they change colour to blue.

1. Choose the **[Country Code].**

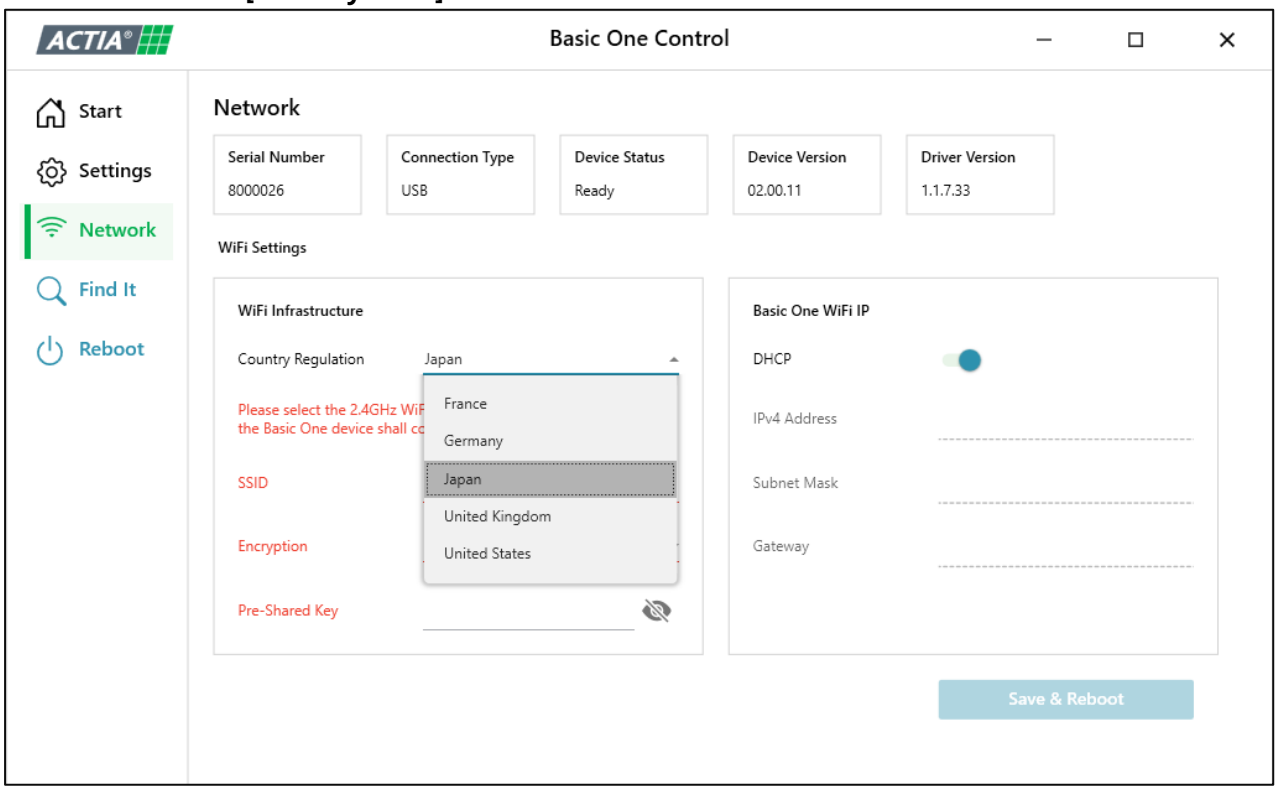

Figure 24) Network– Country Code

2. Enter you're **[SSID].** The name of your Wireless Network.

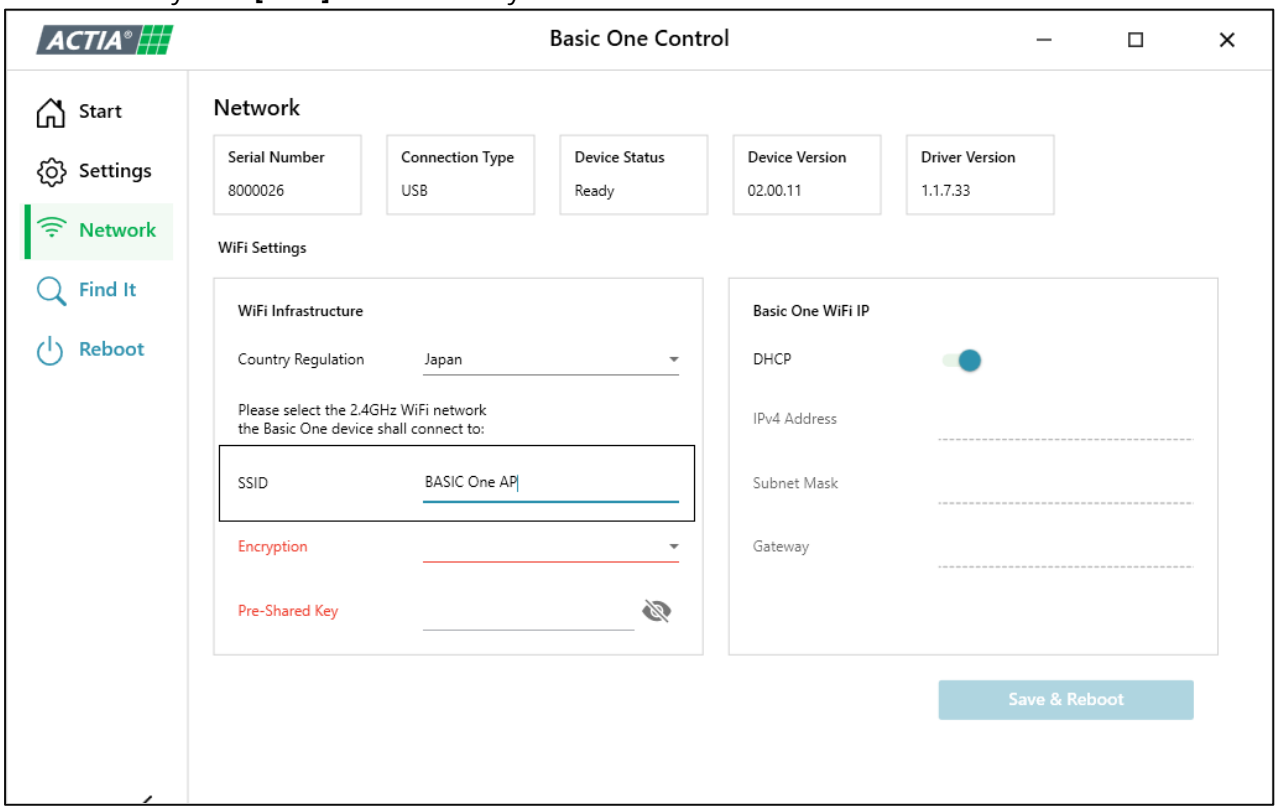

Figure 25) Network - SSID

3. Select the encryption **[WPA2/WPA3].**

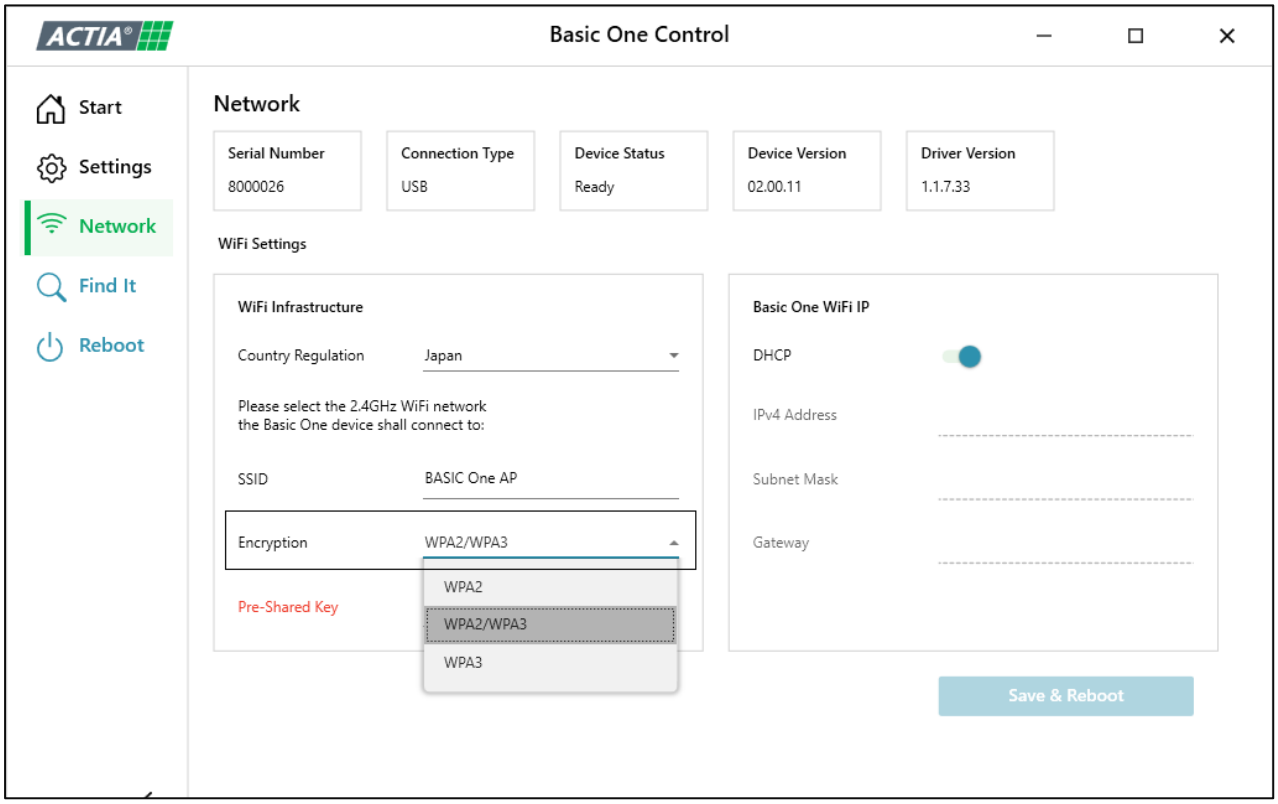

Figure 26) Network – Encryption

4. Enter a pre-shared key of minimum 8 characters.

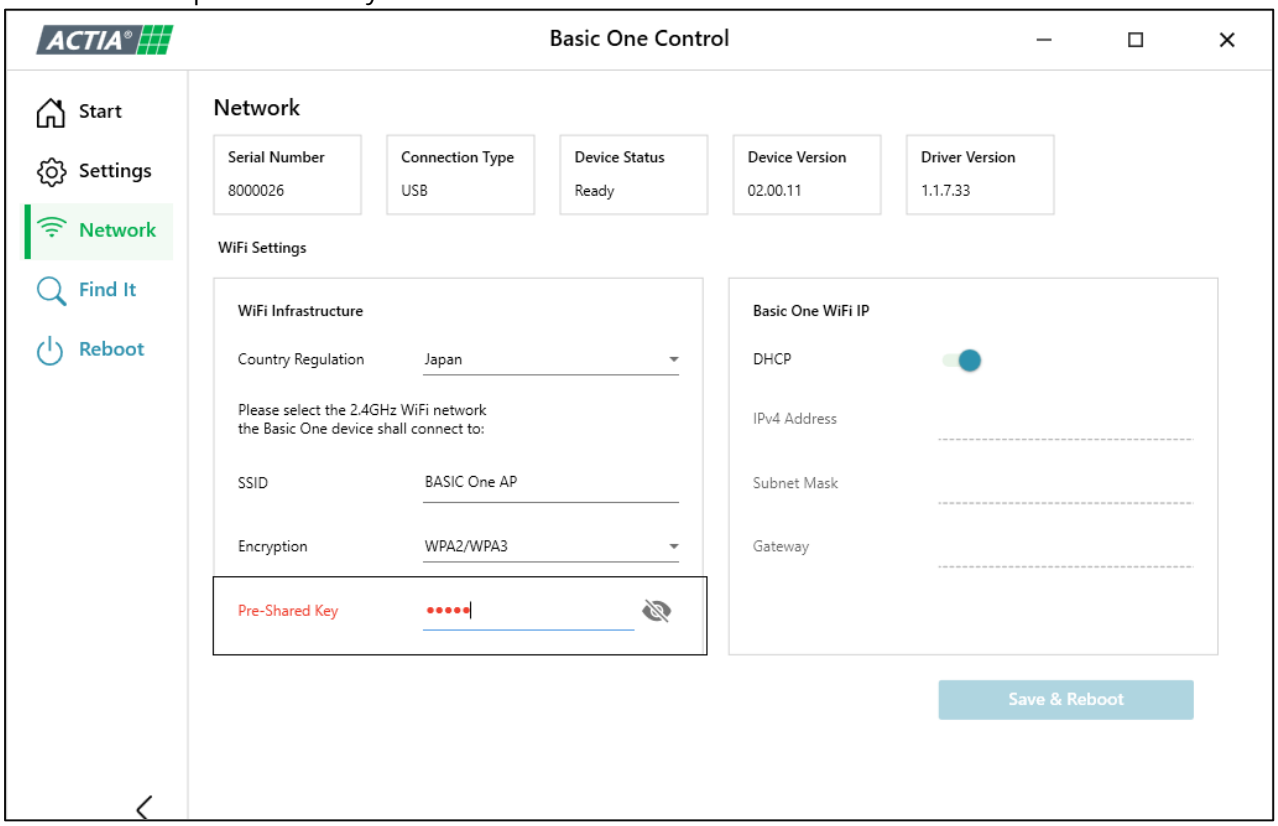

Figure 27) Network – Pre shared Key

5. Click**[Save & Reboot].**

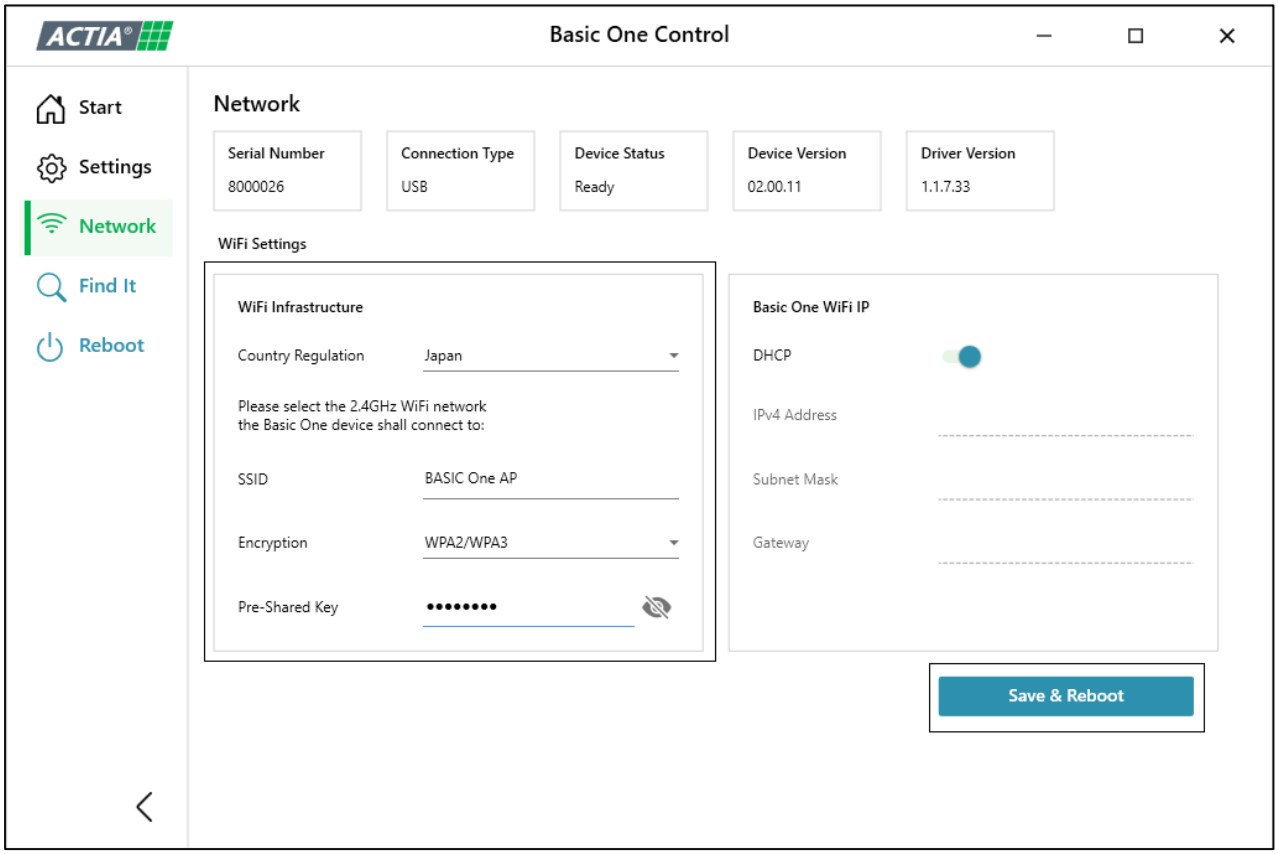

Figure 28) Network - Save & Reboot

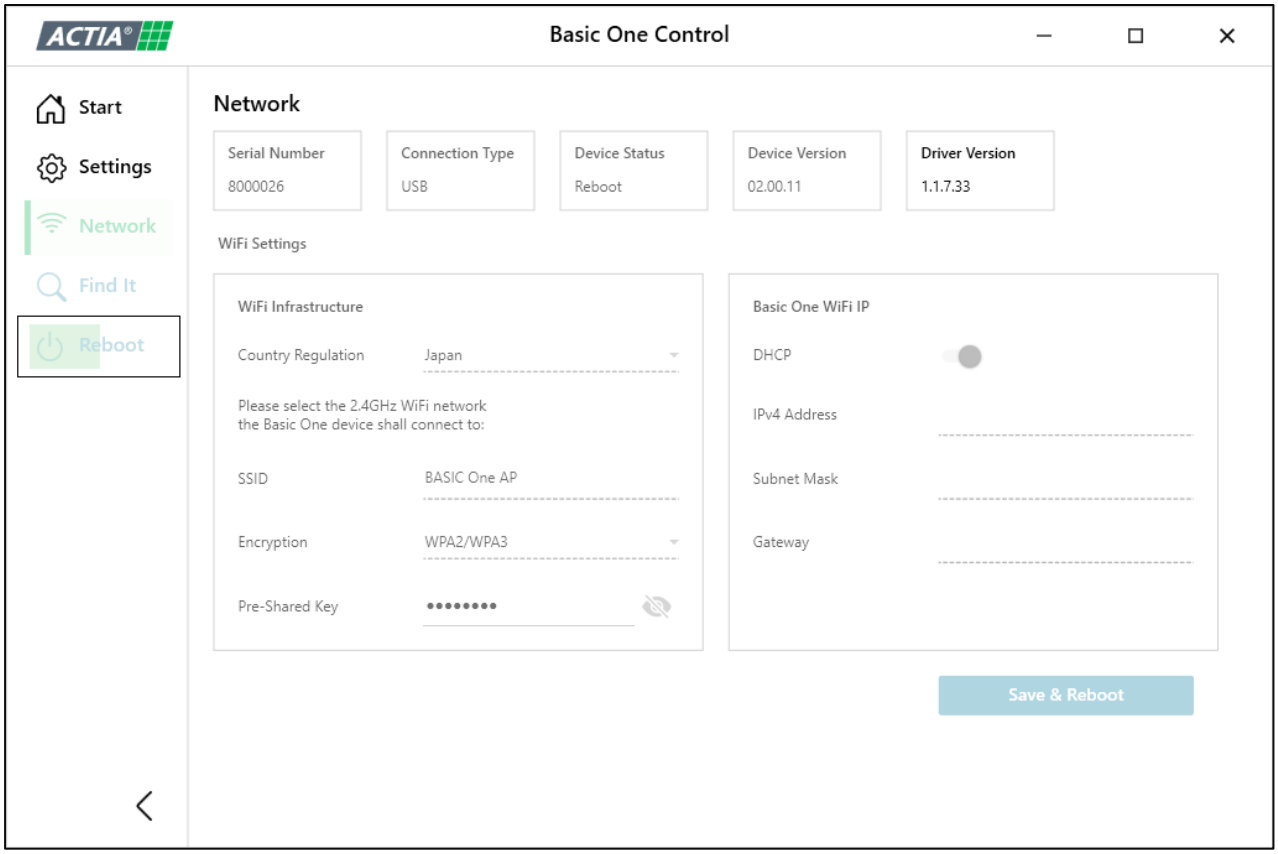

Figure 29) Network – Reboot to apply WiFi settings

The Basic One is not visible for a short period of time. You will be redirected back to the **[Start]** page, if you go back to **[Network],** the settings have been applied.

7.4.2 Basic One WiFi IP

Disable DHCP and enter the IPv4 address, subnet mask and gateway (gateway can be empty).

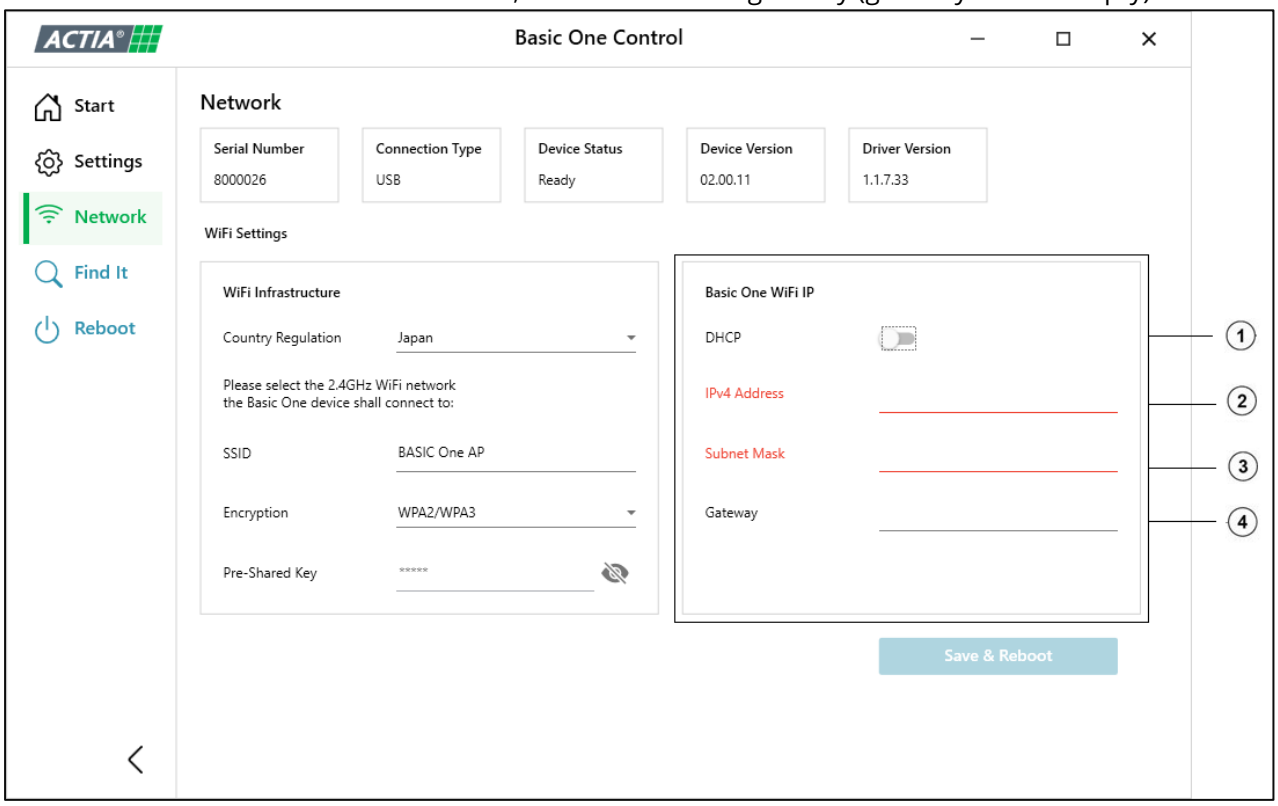

Figure 30) Network – Basic One WiFi IP

1	DHCP disabled	2	IPv4 Adress
3	Subnet Mask	4	Gateway

NOTE

The fields are red and cannot be saved if the criteria are not satisfied, as soon as the criteria are satisfied, they change colour to blue.

Description WiFi IP settings

Value	Description
DHCP	Whether to start a DHCP client for this interface. If “IP” is set to DHCP, you do not need to set this. This is meant to be used where a static IP is set, and an additional DHCP address to be requested.
IPv4 Adress	IPv4 address for the configuration, or “DHCP”.
Subnet Mask	Subnet mask is a 32- or 128-bit number that segments an existing IP address in a TCP/IP network
Gateway	Gateway IP address (ipv4).

Table 5) Description WiFi IP settings

1. Enter the **[IPv4 adress].**

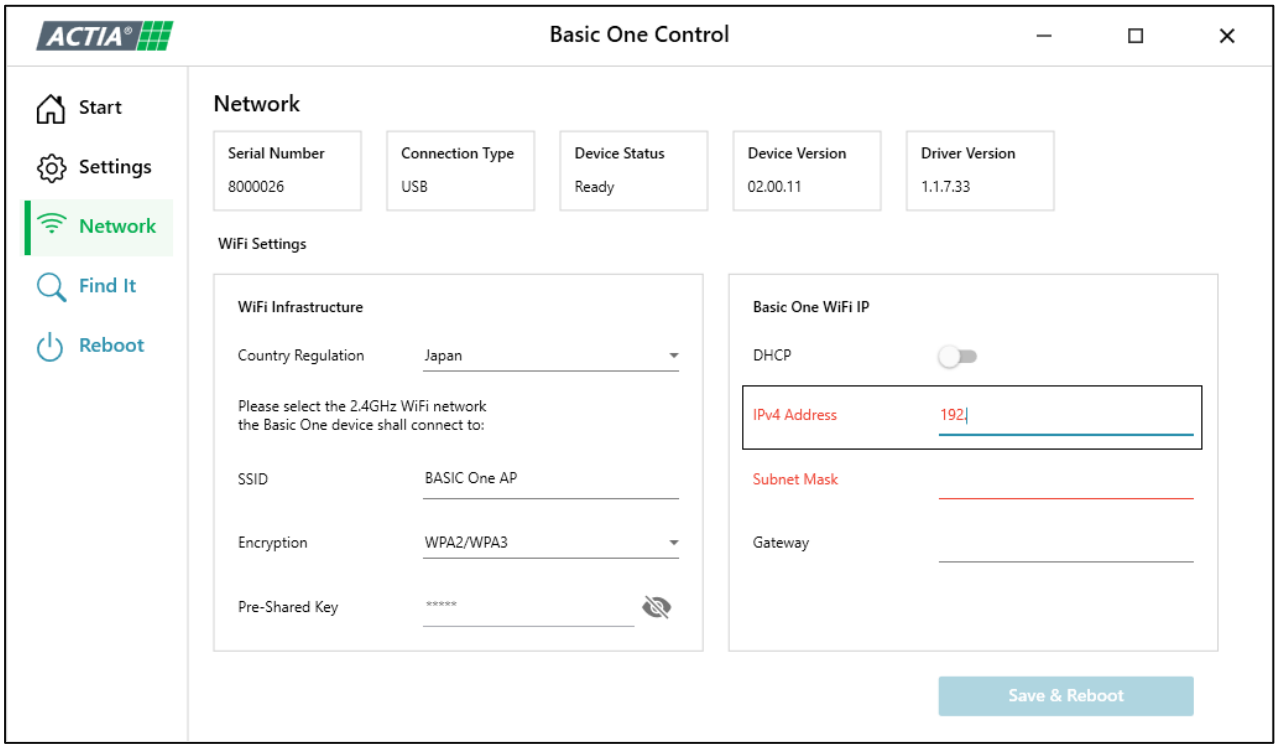

Figure 31) Network – IPv4 Adress

NOTE

The gateway can be empty, if it is filled in, the gateway must be in the same subnet as the IPv4 address but cannot be identical to the IPv4 address.

2. Enter the **[Subnet Mask],** Gateway can be empty.

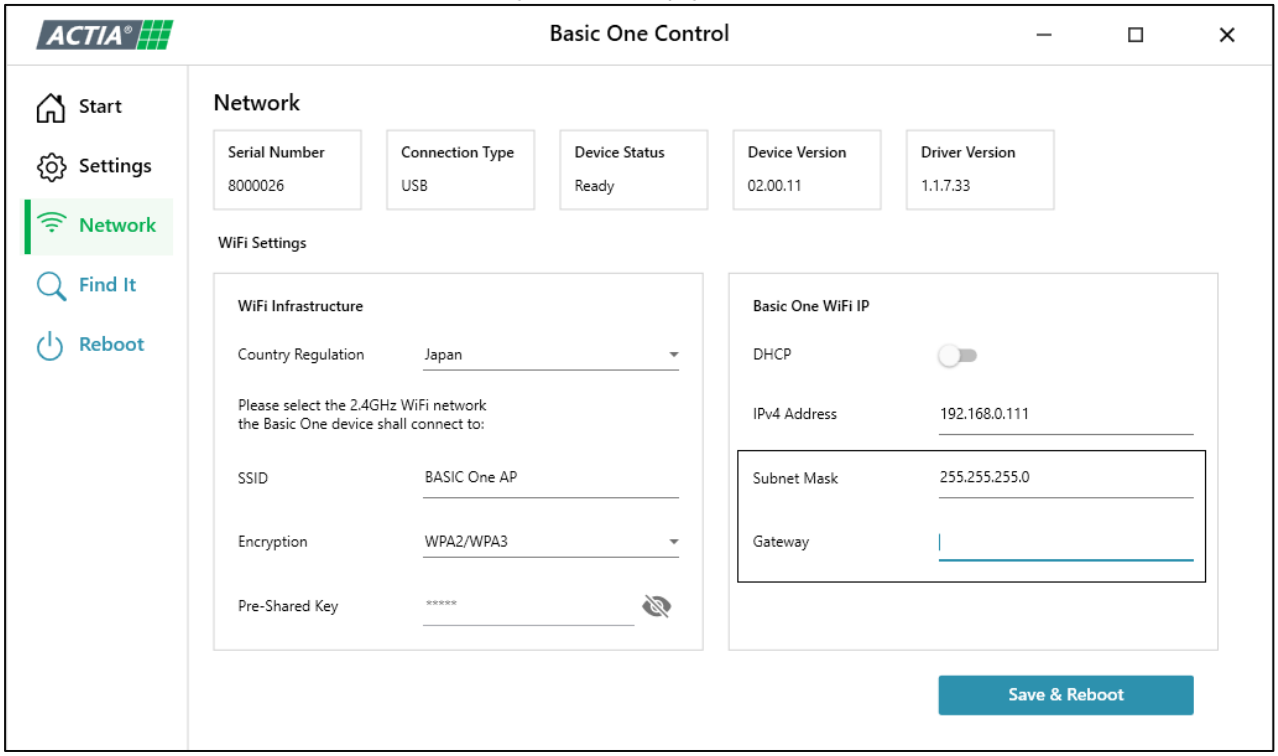

Figure 32) Network – Subnet Mask & Gateway

7.4.3 Find it

1. Click the **[Find it]** button.

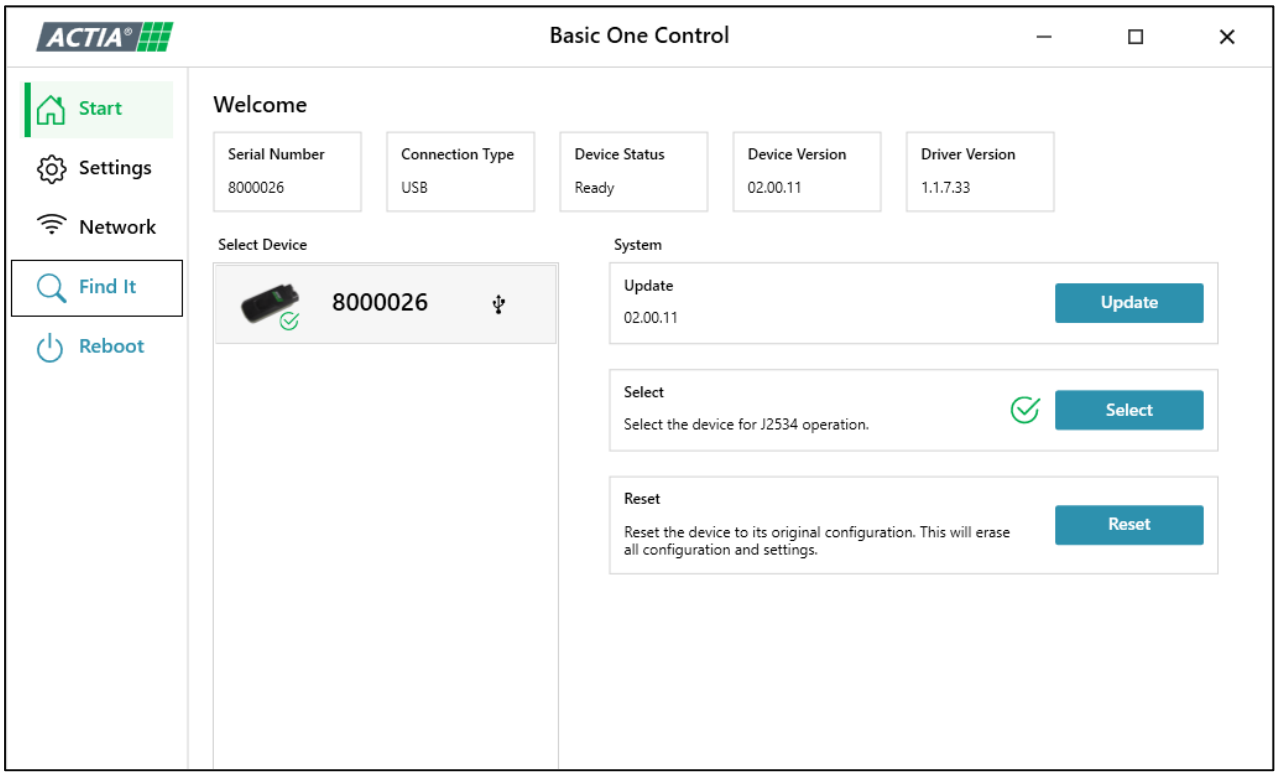

Figure 33) Find it – Find the device

2. The device is being searched for. The device and **[Find it]** button flashes.

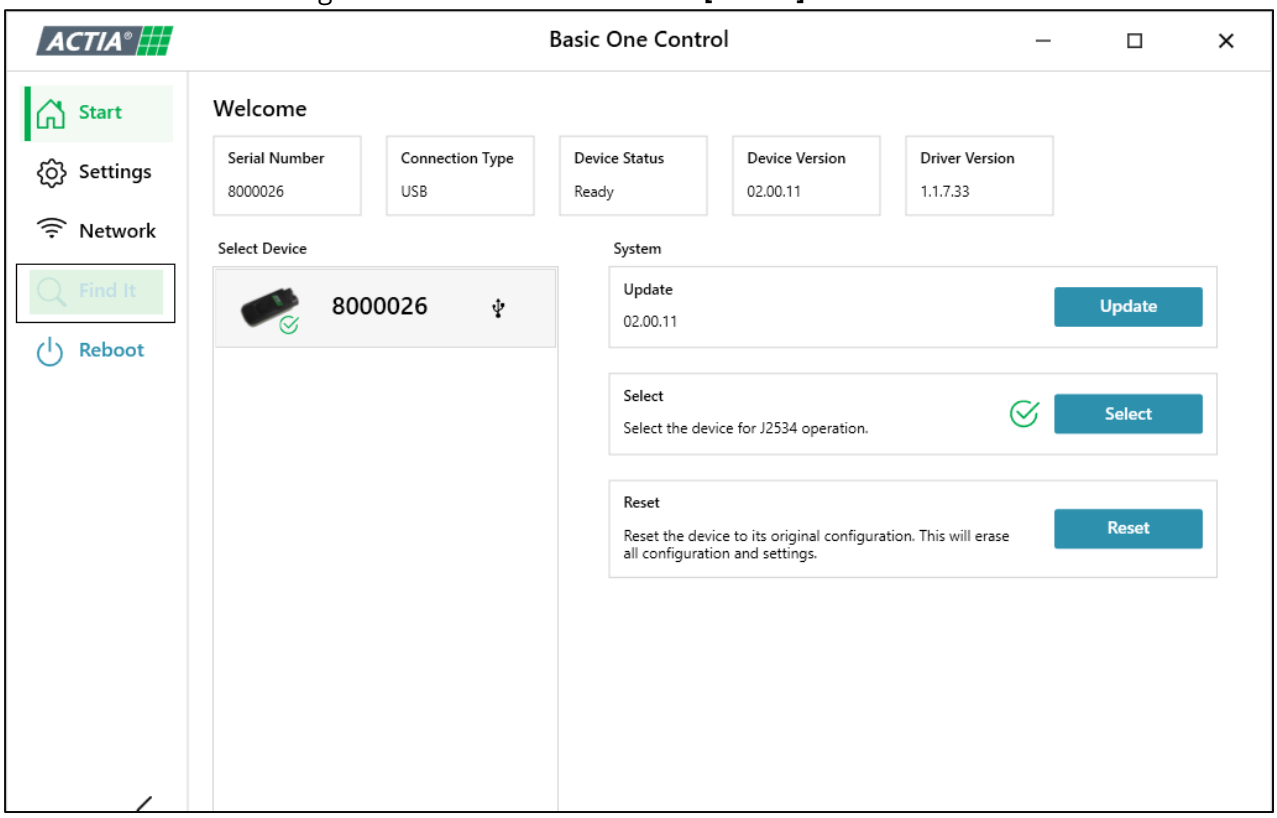

Figure 34) Find it - Find the device process

7.4.4 Reboot the device

1. To reset the network settings, press the **[Reboot]** button.

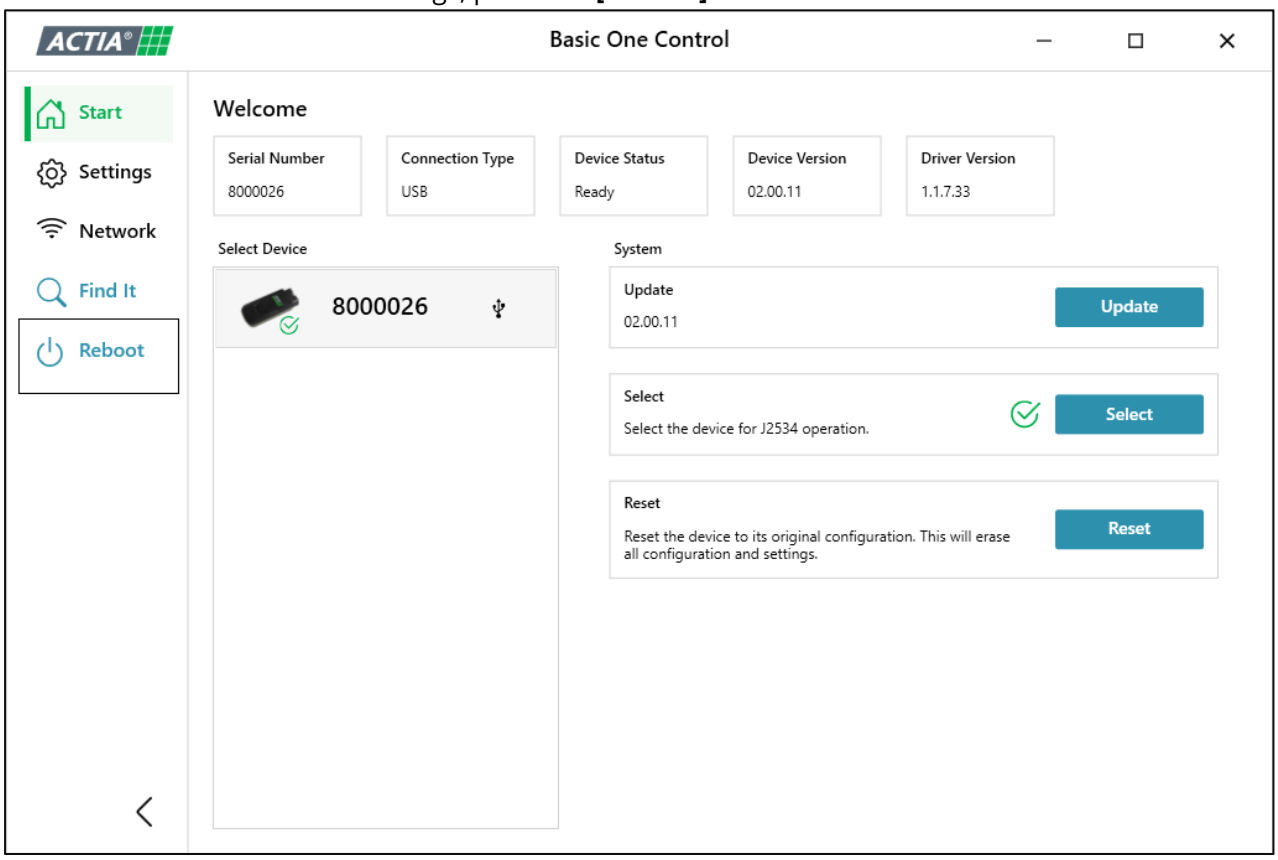

Figure 35) Reboot – Reboot

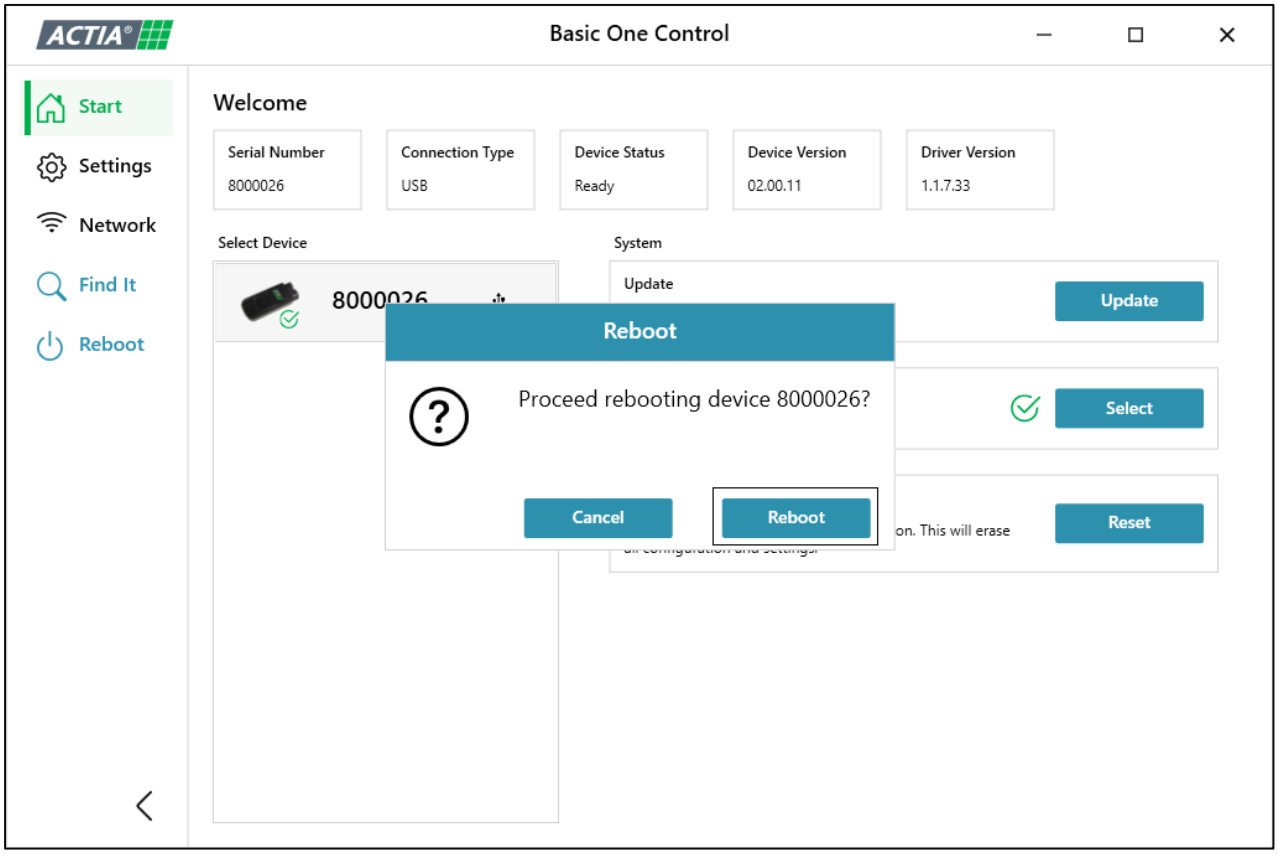

Figure 36) Reboot– Reboot Dialogue

1. The reboot process starts.

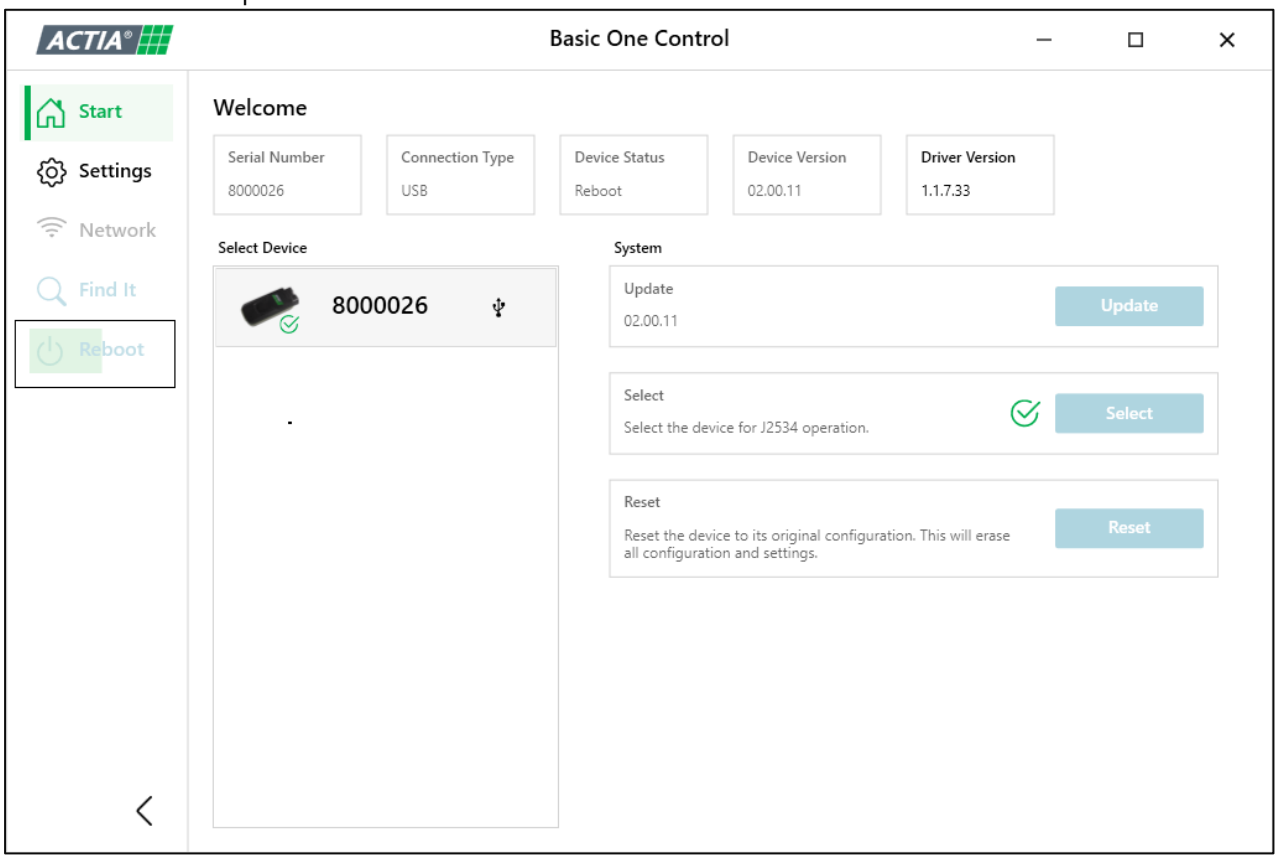

Figure 37) Reboot – Reboot process

Once the reboot process has been completed, the start page opens.

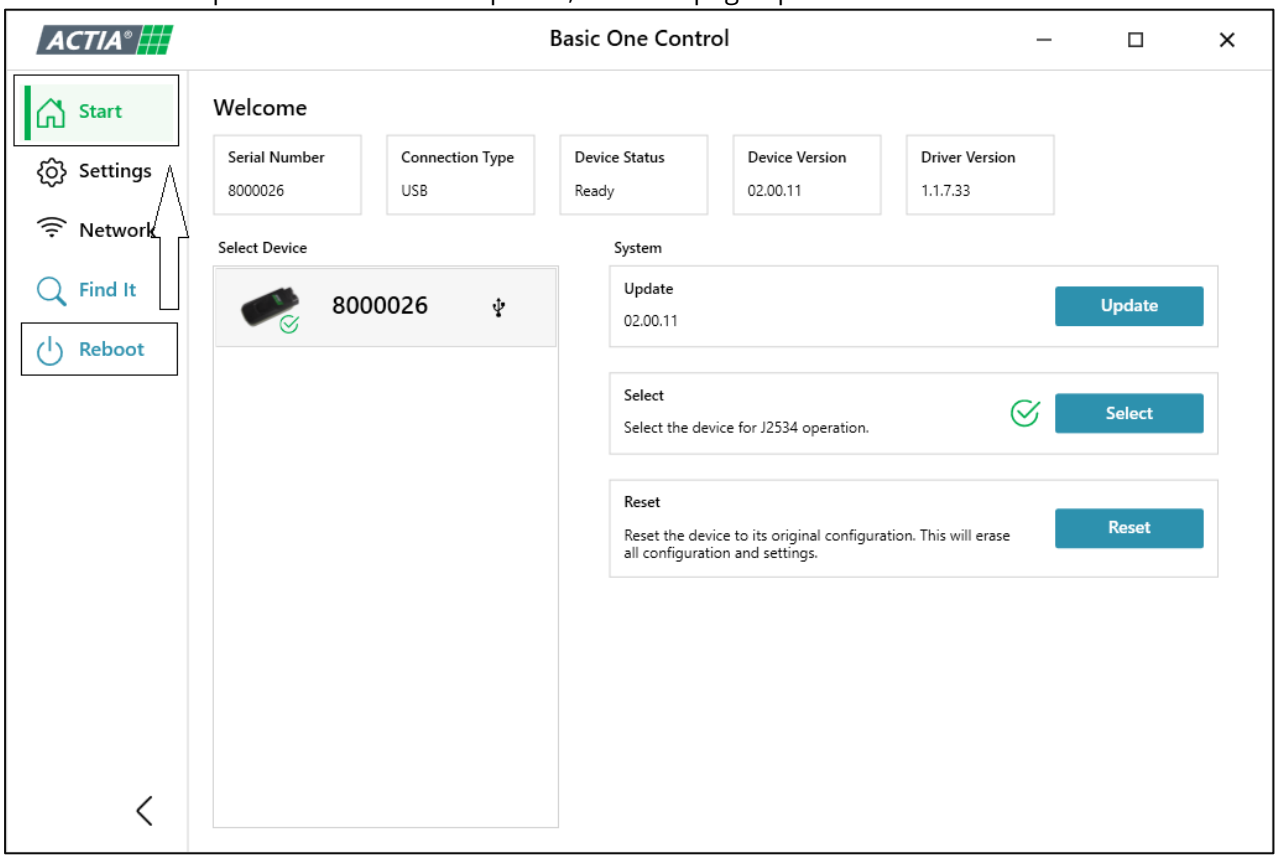

Figure 38) Reboot – Start

7.4.5 WiFi disabled

If the WiFi does not work on a device, change the setting using the
'Basic-One-WiFi-Activation-n.n.n.exe'.
The prerequisite is that the WLAN router must be accessible.

Before the first restart, check whether the keys are on the source and reset them if necessary.

Computer\HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\ACTIA IME GmbH\Basic One\Parameter

- „Connection Type" is empty
- „Ignore Interface" is 0x00000000
- „Serial Number" is 0x00000000

7.4.5.1 Multiple devices are connected

1. Open the start page.
2. . Check whether an update works. Proceed as follow:
   - Install earlier version (1.1.3)
   - Update current version
   - Install current version

A warning triangle appears next to the update button; the difference between the versions is between 'Device Version' and 'Update'.

- Press the Update button

A dialogue box opens.

- Cancel – it continues to work normally
  Press the Update button again
- Update – the firmware is updated

The firmware is updated, and the device is rebooted.

3. Press the „Settings" button.
   - The selected language is displayed.
   - Switching the language immediately changes the language.

No device is connected, and all controls show '—', except for the 'Driver Version' field, which shows the current driver, which is also the version in the PassThruDLL 'BOne32.dll' and is returned by the 'PassThruGetVersion' function.

Two or more devices connected via USB; the symbols on the right (USB symbols) turn red.

- All buttons are disabled.

7.4.5.2 One device is connected

Only one device is connected via USB, the symbol is displayed in black

- Press the buttons on the right.

The serial number, connection type, status, device version and driver version of the device are displayed in the controls.

1. Press the 'Settings', 'Settings' or 'Language' button

When you click on a language, all languages are switched in the VIEW:

2. A Basic One is connected via USB (WLAN is hidden)
    - The device with the serial number is displayed
    - The USB symbol is displayed
3. Press the 'Find it' button. The device flashes in different colours during this time. After about 5 seconds, the display shows the colours that indicate that the device has been found.
4. Press the 'Restart' button to reset the device.

A security prompt will appear asking whether you really want to restart the device. The serial number of the device will also be displayed.

- Cancel – The dialogue will be closed and you can continue working.
- Restart – Among other things, the device will be restarted and will no longer be visible for a short time.

Selecting the device for J2534

5. Press the 'Select' button.

A green circle with a check mark appears next to the button and next to the icon, indicating that the device has been selected.

- Resetting the device
- Press the 'Reset' button.

A dialogue box with a confirmation prompt appears.

- Cancel – the device continues to work normally.
  Press the Reset button again
- The device is reset and then rebooted

7.4.5.3 Network setting

The 'Network' button is greyed out.

Basic One Wifi Activation (external tool)

- Enable - JPN Enable
- Enable – WiFi Enable
- Program Devices

1. Press the 'Network' button.

2. Select the country.

3. Select the SSID of your Network, for example ASUS.

- Encryption: for example WPA3/WPA2
- PSK: your WIFI password

4. Press ‘Save & Reboot’. The device will restart.

Please disconnect the USB cable from the device and then disconnect the device from the power supply once. After that, the device must be reconnected to OBD power.

17. Connect a second device with USB.

One device is connected via USB, and the other is connected via Wi-Fi. This can be seen from the icons.

18. Now connect both devices via USB.

- Both icons are now USB/red
- Again, one device is connected via USB, and the other is connected via Wi-Fi.

The top line, under the welcome message, shows the serial number, connection type, device status and device version of the selected device.

8 Error description & handling (FAQ)

The following list gives a general procedure how to solve a faulty behaviour of the Basic One.

1. Make sure the product is powered on.
2. Make sure that the battery voltage is correct.
3. Make sure that the LED status is as per description (chap.5.3 Display elements and control elements),
4. Narrow down the problem
   - Try with another working communication unit.
   - Try to connect WiFi again.
   - Execute the Check-up Tool.
   - Try to perform a factory reset.

If using WLAN, check that the WLAN is working properly. Consult your local IT support for advanced checking of WLAN Application.

NOTE
If none of the above solves the problem, contact support with a description of the failure for support cases.

The table below summarises the software and hardware faults that may occur.

Problem	**Cause**	**Solution**
LEDs does not light up	Device has no power supply	Connect OBD socket with power supply. Check OBD socket and cable, if pins are damaged bend or missing.
Device is not displayed in the application or not connected to the operating system (i.e Windows)	Device has no connection.	Check if the USB and OBD cables are plugged in. Check whether the USB plug is properly inserted. Pull out the USB plug and re-insert it. Visual inspection to see whether the USB socket is damaged due to the use.
LED static red	The boot process is not working.	Factory Reset Contact your Service partner.
LED flashes green	USB connection interrupted.	USB cable not plugged in properly. Check the cable.
LED flashes blue	Cannot connect to access point.	Password entered incorrectly, check the password. Router out of range, router failed, check the connection and location.
VCI is not displayed in the device list	Incorrect firewall rules.	Check the firewall rules, contact your administrator.
Reboot process, Update version, does not start	Cannot select, Update version.	Check that the device has been selected, green tick set under the device in the ‘Select device’ list.
Reboot process, API J2534, does not start	Cannot select, API J2534.	Check that the device has been selected, green tick set under the device in the ‘Select device’ list.
Reboot process, Factory default, does not start	Cannot select, Factory default.	Check that the device has been selected, green tick set under the device in the ‘Select device’ list.

Table 6) Error description

8.1 Technical Assistance

If the errors are not described in the table above, please contact ACTIA IME GmbH directly and have the following information ready:

- Company name and address
- Telephone number
- Error description
- Your customer numbers

If you have any questions about the Basic One VCI, need information about other ACTIA IME products or simply want to find out more about us, please send us an e-mail. Your ACTIA IME contact will get back to you as soon as possible.

Opening hours:
Monday - Thursday: 09:00 - 16:00 UTC +1/+2
Friday: 09:00 - 15:00 UTC +1/+2
ACTIA IME GmbH
Dresdenstraße 17/18
D-38124 Braunschweig
Phone: +49 (0) 531 38701 - 0

E-mail: info@ime-actia.de
Internet: www.ime-actia.de

9 Maintenance

Maintenance work serves to maintain the operational readiness and prevent premature wear.
Maintenance is divided into:

- Care and cleaning
- Checks and updates
- Repairs

9.1 Care and Cleaning

NOTE
Material damage due to unsuitable cleaning agents! Incompatible and aggressive cleaning agents can damage the surface or the components. • Only use a moist cloth for cleaning the device. • Do not use hard sponges. • Only use cleaning agents which are compatible with the surfaces and the materials. • Do not clean the interior of the device.

Do not clean the VCI with acidic or solvent-based cleaners. Use a microfibre cloth for cleaning. For heavier soiling, you can use a mild soap and water on the microfibre cloth.
When cleaning the exterior of the device, proceed as follows:

- Remove dirt.
- Remove loose dirt and dust using a moist cloth.

NOTE
Dispose of the cleaning agents properly.

9.2 Checks and updates

Checks and updates are divided into:

- Regular checks
- Firmware updates

NOTE
The device is maintenance-free except for regular firmware updates

9.2.1 Regular checks

To ensure that the device is in proper operating condition, you must regularly perform Communication tests and check that the device functions properly.

- Report any defects found.
- Immediately report any defects found to the supervisor responsible. At shift change, the off-going member of staff must pass on any defects found and measures already taken.
- If there are defects that affect the operational safety, take the device out of service.

9.2.2 Firmware updates

When a new firmware update is available, you will receive a notification.

9.3 Repairs

Repair works include the replacement of the complete Basic One VCI device and are only required when components are damaged by wear or other external circumstances.

- Do not repair the Basic One VCI device yourself.

10 Decomissioning

10.1 Switch off Basic One

To switch off Basic One VCI, disconnect the device from the vehicle.
The device switched off.

10.2 Recommissioning

To switch on Basic One VCI, connect the device to the vehicle.
The device has been recommissioned.

10.3 Final decomissioning / disposal

After the end of its useful life, Basic One VCI must be properly taken out of service and disposed of.
The device contains electrical components that must be disposed of separately.

1. Ensure that the disposal is done properly and in an environmentally sound way.
2. Do not dispose Basic One VCI with household waste.
3. Bring the device to a specialist company for proper disposal.
4. Observe the national and local regulations during disposal.
5. Observe WEEE Directive 2012/19/EU.

The device has been disposed of.
Old appliances and electronic parts must be disposed of separately from household waste.

Labelling of waste equipment and electronic parts.

In accordance with European regulations and the Waste Electrical and Electronic Equipment Directive (WEEE, Number 2012/19/EU), all devices and electronic parts included in the scope of delivery must not be disposed of with household waste. Old appliances and electronic parts can be handed in at the local authority collection points after use. Since 01.01.2022, old appliances can also be disposed of directly via the manufacturer. To do this, return the old devices directly to ACTIA IME with the note "Old device for disposal".

NOTE

Improper disposal threatens the environment and prevents reuse and recycling of products and components.

- Dispose of components according to their condition.
- Immediately absorb leaked operating and auxiliary materials.
- Dispose of operating and auxiliary materials in accordance with applicable disposal regulations.

If in doubt, consult local waste disposal authorities.

11 Technical Details

Attributes	Value
Dimensions	112 x 48 x 23 mm
Weight	78 g
Housing material	ABS / PC
Colour	Black
Temperature range	-20...+50°C operational -40...+85°C storage
Protection class	IP 42
Power supply	8..32 V DC, from OBD plug. No internal battery
CPU connectivity	Dual core 32-bit
Memory	16MB Flash | 8MB RAM
WiFi	Internal single stream 802.11 b/g/n Supports 2.4 GHz operation
USB	USB-C connector
Operating system (Application/Host)	Windows 11, Windows 10
Diagnostic APIs	J2534
CAN	1 x with FD, Lowspeed and Singlewire option, switchable 120 Ω - termination
K-line	2 x independent UART with 12/24 V support
Internal multiplexer	Vehicle interface adjustment
Analog measurement	Battery voltage
Protocol support	ISO 15765 (CAN), CAN 11898, ISO 14230 (K-Line), ISO 9141 (K-Line)

Table 7) Technical data

NOTE

Due to hardware limitations, the device may lose received CAN-FD frames with a data baud rate >1 Mbit and a bus utilisation >80% for more than 14 consecutive frames.

12 Homologation

12.1 CE Declaration of Conformity

ACTIA IME GmbH

ACTIA IME GmbH
Dresdenstraße 17/18
38124 Braunschweig
Germany
Tel.: + 49 531 38701-0
www.ime-actia.de

CE

Declaration of Conformity

according to the regulation:

Radio Equipment Directive (2014/53/EU)

We, ACTIA IME GmbH, hereby confirm that the following product

Model:	**AIME040044**
Product description:	**Basic One VCI**
Brand name:	**ACTIA**

complies with the requirements and standards listed below:

Essential requirements		Specifications / Standards
Article 3.1a	Health & Safety	EN 62311:2008 EN 62368-1:2014/AC:2015/A11:2017
Article 3.1b	EMC	ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-17 V3.2.4
Article 3.2	Radio	ETSI EN 300 328 V2.2.2 ETSI EN 301 893 V2.1.1

The installation, safety and operating instructions in the product documentation must be obeyed.

Braunschweig, 23.07.2024
Place, date

ACTIA IME GmbH
Dresdenstrasse 17/18
D-38124 Braunschweig
Tel.: + 49 (0) 531 38 70 1 0
E-Mail: info@ime-actia.de

Printed Name: Maik Luschtinetz
Position: Managing Director

Figure 39) CE Declaration

12.2 Simplified CE Declarations Basic One VCI

13 EU Declarations of conformity in the respective languages.

Česky [Czech]	*ACTIA IME GmbH* tímto prohlašuje, že tento „Basic One VCI“ je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 2014/53/EU.
Dansk [Danish]	Undertegnede *ACTIA IME GmbH* erklærer herved, at følgende udstyr „ Basic One VCI “ overholder de væsentlige krav og øvrige relevante krav i direktiv 2014/53/EU.
Deutsch [German]	Hiermit erklärt ACTIA IME GmbH, dass sich das Gerät „Basic One VCI“ in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 2014/53/EU befindet.
Eesti [Estonian]	Käesolevaga kinnitab *ACTIA IME GmbH* seadme „Basic One VCI“ vastavust direktiivi 2014/53/EU põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
English	*ACTIA IME GmbH* hereby declares that this „Basic One VCI“ complies with the general requirements and other relevant provisions of Directive 2014/53/EU.
Español [Spanish]	Por medio de la presente *ACTIA IME GmbH* declara que el „Basic One VCI“ cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 2014/53/EU.
Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ *ACTIA IME GmbH* ΔΗΛΩΝΕΙ ΟΤΙ „Basic One VCI“ ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 2014/53/EU.
Français [French]	Par la présente *ACTIA IME GmbH* déclare que l'appareil „Basic One VCI“ est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 2014/53/EU.
Italiano [Italian]	Con la presente *ACTIA IME GmbH* dichiara che questo „Basic One VCI“ è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 2014/53/EU.
Latviski [Latvian]	Ar šo *ACTIA IME GmbH* deklarē, ka „Basic One VCI“ atbilst Direktīvas 2014/53/EU būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuvių [Lithuanian]	Šiuo *ACTIA IME GmbH* deklaruoja, kad šis „Basic One VCI“ atitinka esminius reikalavimus ir kitas 2014/53/EU Direktyvos nuostatas.
Nederlands [Dutch]	Hierbij verklaart *ACTIA IME GmbH* dat het toestel „Basic One VCI“ in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 2014/53/EU.
Malti [Maltese]	Hawnhekk, *ACTIA IME GmbH*, jiddikjara li dan „Basic One VCI“ jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 2014/53/EU.

Magyar [Hungarian]	Alulírott, *ACTIA IME GmbH* nyilatkozom, hogy a „Basic One VCI“ megfelel a vonatkozó alapvetõ követelményeknek és az 2014/53/EU irányelv egyéb elõírásainak.
Polski [Polish]	Niniejszym *ACTIA IME GmbH* oświadcza, że „Basic One VCI“ jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 2014/53/EU.
Português [Portuguese]	*ACTIA IME GmbH* declara que este „Basic One VCI“ está conforme com os requisitos essenciais e outras disposições da Directiva 2014/53/EU.
Slovensko [Slovenian]	*ACTIA IME GmbH* izjavlja, da je ta „Basic One VCI“ v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 2014/53/EU.
Slovensky [Slovak]	*ACTIA IME GmbH* týmto vyhlasuje, že „Basic One VCI“ “ spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 2014/53/EU.
Suomi [Finnish]	*ACTIA IME GmbH* vakuuttaa täten että „Basic One VCI“ tyyppinen laite on direktiivin 2014/53/EU oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Svenska [Swedish]	Härmed intygar *ACTIA IME GmbH* att denna „Basic One VCI“ står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 2014/53/EU.
Íslenska [Icelandic]	Hér með lýsir *ACTIA IME GmbH* yfir því að „Basic One VCI“ er í samræmi við grunnkröfur og aðrar kröfur, sem gerðar eru í tilskipun 2014/53/EU.
Norsk [Norwegian]	*ACTIA IME GmbH* erklærer herved at utstyret „Basic One VCI“ er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 2014/53/EU.

Table 8) Simplified CE Declarations

13.1 Regulatory Information Basic One

Canada	Contains IC 21098-ESPWROOM32D CAN ICES-3 (B) / NMB-3 (B) This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions: (1) This device may not cause interference. (2) This device must accept any interference, including interference that may cause undesired operation of the device. L'é metteur/ré cepteur exempt de licence contenu dans le pré sent appareil est conforme aux CNR d'Innovation, Sciences et Dé veloppement é conomique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisé e aux deux conditions suivantes : 1) L'appareil ne doit pas produire de brouillage; 2) L'appareil doit accepter tout brouillage radioé lectrique subi, mê me si le brouillage est susceptible d'en compromettre le fonctionnement. For licence-exempt equipment with detachable antennas only: This radio transmitter [enter the device's ISED certification number] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device. Le pré sent é metteur radio [identifier le dispositif par son numé ro de certification d'ISDE] a é té approuvé par Innovation, Sciences et Dé veloppement é conomique Canada pour fonctionner avec les types d'antenne é numé ré s ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supé rieur au gain maximal indiqué pour tout type figurant sur la liste, sont strictement interdits pour l'exploitation de l'é metteur. Immediately following the above notice, the manufacturer shall provide a list of all antenna types which can be used with the transmitter, indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna type.
Europe	CE Hereby, ATIA IME GmbH, declares that the radio equipment type [designation of type of radio equipment] is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.ime-actia.de
China	Coming soon
Japan - MIC compliance information	Contains MIC ID: 211-171102

USA	Contains FCC ID: 2AC7Z-ESPWROOM32D This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user`s authority to operate the equipment. This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
USA	 This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user`s authority to operate the equipment. Class A digital device only: Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Class B digital device only: Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: —Reorient or relocate the receiving antenna. —Increase the separation between the equipment and receiver. —Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. —Consult the dealer or an experienced radio/TV technician for help.

Table 9) Country Certification

13.2 WLAN Certifications

The use of radio channels for 2.4 GHz is regulated and differs among countries with respect to the set of allowed radio channels and maximum transmission power.
The country specific WLAN radio settings are applied in Basic One firmware and cannot be changed by user.

14 Appendix

14.1 Abbreviations

This chapter contains all abbreviations and acronyms used in this document. No translation is given for terms that are native to English but typically not translated in the environment of the addressed readership.

Abbreviation	Meaning
API	Application Programming Interface
AP	Access Point
CAN	Controller Area Network
CE	CE marking
CPU	Central Processing Unit
DHCP	Dynamic Host Configuration Protocol
DoIP	Diagnostic over IP
ECC	Error-Correction Code
ECU	Electronic Control Unit
HMI	Human Machine Interface
HW	Hardware
IP	Internet Protocol
IPv4	IP address format, version 4
IPv6	IP address format, version 6
IO	Input/ Output
ISO	International Organization for Standardization
LED	Light Emitting Diode
MMI	Man Machine Interface
OBD	On-board Diagnostic standard
PCB	Printed Circuit Board
RAM	Random Access Memory
RSSI	Received Signal Strength Indicator
SW	Software
TCP	Transmission Control Protocol

Abbreviation	Meaning
UDP	User Datagram Protocol
USB	Universal Serial Bus
VBAT	Vehicle Battery Voltage
VCI	Vehicle Communication Interface
WiFi	Trademark of WiFi- Alliance, WiFi: “Wireless Fidelity”
WiFi	Wireless LAN
WPA	WiFi Protected Access

Table 10) Abbreviations

14.2 List of figures

14.3 List of tables