

# Cummins USB-Link™ 3 Installation and Setup Manual



**Wireless Edition**  
PN 121052C



**Wired Edition**  
PN 121054C



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## Cummins USB-Link™ 3: Wireless and Wired Editions

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**CE 0700**

Approved in accordance to R&TTE directive transmitter module marked by "CE product label", manufactured by MITSUMI incorporated to OEM product.

Part No. ZEESM611AWLC1    Revised 04/29/2025

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# Table of Contents

<b>Chapter 1: Using this Manual</b>	<b>1</b>
Manual Overview	2
Conventions	3
Special Messages	3
Note	3
Important	3
Caution	3
Warning	4
Troubleshooting	4
Specialized Text	4
 <b>Chapter 2: Introducing the USB-Link™ 3</b>	 <b>5</b>
Component Checklist	6
Product Specifications	7
System Requirements	8
Device Features	9
Communication Options: Wired vs Wireless	12
Wired USB Connection	12
Wireless Bluetooth Connection	13
Wireless Wi-Fi Connection	14
Mini Access Point Mode (Peer-to-Peer)	15
Infrastructure Mode (Connecting to your Company's Network)	16

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# Table of Contents

<b>Chapter 3: Installing the Drivers and Setting Up the Device</b>	<b>17</b>
Installation Process Outline	18
Step 1: Install the Drivers	19
Step 2: Connect the USB-Link™ 3 to a Vehicle	27
Making a Wired USB Connection	28
Making a Wireless Bluetooth Connection	29
Pair the Device	30
Making a Wireless Wi-Fi Connection	32
Mini Access Point Mode	32
Infrastructure Mode	35
Step 3: Test the Connection	36
Using the USB-Link™ 3 Explorer Utility	39
The Configuration Tab	41
Switching Modes: Mini Access Point and Infrastructure	42
The File Menu	44
The Tools Menu	45
Ping	45
Options	46
The Help Menu	48

# Chapter 1: Using this Manual

Manual Overview (pg. 2)

Conventions (pg. 3)

Special Messages (pg. 3)

Note (pg. 3)

Important (pg. 3)

Caution (pg. 3)

Warning (pg. 4)

Troubleshooting (pg. 4)

Specialized Text (pg. 4)

This chapter provides an overview of this manual's organization and the conventions used throughout.

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**NOTE:** Images used throughout this manual are for illustrative purposes only.

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## Manual Overview

This manual provides information to support you during installation and setup of the Cummins USB-Link™ 3 Wireless Edition and Wired Edition.

**This manual is composed of the following sections:**

- *Chapter 1: Using this Manual*—provides an overview of this user manual.
- *Chapter 2: Introducing the USB-Link™ 3 Wireless Edition and Wired Edition*—provides details on communication options, including Bluetooth®, Wi-Fi, USB, Mini Access Mode, and Infrastructure Mode.
- *Chapter 3: Installing the Drivers and Setting up the Device*—provides instructions for installing Cummins USB-Link™ 3 drivers and utilities, connecting to a vehicle, pairing the device, and testing the connection. It also provides information on using the USB-Link™ 3 Explorer.

### Conventions

This section provides descriptions of the conventions used throughout this guide.

### Special Messages

#### Note

NOTE provides an explanation, comment, or tip related to the subject matter that is being discussed.

*Example:*

---

**NOTE:** Refer to the page number indicated for further details on the described component.

---

#### Important

IMPORTANT indicates a situation which may damage the test equipment or vehicle.

*Example:*

---

**IMPORTANT:** Keep all cables clear of moving or hot engine parts.

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#### Caution

CAUTION indicates a potentially hazardous situation which may result in minor or moderate injury to the operator or bystanders.

*Example:*

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**CAUTION:** Do not use the unit to perform tests on household or industrial sources.

---

**Warning**

WARNING indicates a potentially hazardous situation which could result in serious injury or death to the operator or bystanders.

*Example:*

---

**WARNING:** All RP1210 adapters must be disconnected before proceeding with installation.

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**Troubleshooting**

Information intended to help you to address or anticipate potential issues are presented in the following manner:

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*If CUMMINS USB-Link™ 3 WVL2 drivers are installed, the WVL2 Explorer Utility must be exited before proceeding with installation.*

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**Specialized Text**

The specially formatted text is used to help you to differentiate specific elements discussed within this manual:

- **Emphasis:** Used to draw your attention to particularly important information.
- **FEATURE:** Used to highlight the name of a specific feature.  
*Example:* "Click on the **Finish** button to continue."
- **Field/Line:** Used to highlight the name of a field or a line of text from a display.  
*Example:* "A check mark is placed in the check box next to the **Total Fuel Used** parameter."
- **Menu Items:** Used to highlight a series of menu selections.  
*Example:* "From the Start menu, select **Programs > Cummins > Cummins Validation Tool.**"
- **Screen titles:** Used to highlight the title of a screen displayed.  
*Example:* "The **Installation Complete** screen is displayed."



# Chapter 2: Introducing the Cummins USB-Link™ 3

Component Checklist (pg. 6)

Product Specifications (pg. 7)

System Requirements (pg. 8)

Device Features (pg. 9)

Communication Options: Wired vs Wireless (pg. 12)

Wireless Bluetooth® Connection (pg. 13)

Wireless Wi-Fi Connection (pg. 14)

Mini Access Point Mode (Peer-to-Peer) (pg. 15)

Infrastructure Mode (Connecting to your Company's Network) (pg. 16)

The USB-Link™ 3 is a hardware device that enables service bay technicians to use personal computers or laptops to retrieve vehicle information using wireless Bluetooth® and Wi-Fi technologies, or a USB cable connection. Once configured, the USB-Link™ 3 interfaces with specific PC applications to perform vehicle diagnostics.

This chapter introduces the USB-Link™ 3 and provides details regarding the communication modes available to interface with your PC. It also introduces the features of the USB-Link™ 3 (i.e., LEDs, Pairing Button, USB port, Vehicle port).

## Component Checklist

The following components are included with your USB-Link™ 3. Confirm you have all of these items before using the device:

- USB-Link™ 3
- Latching USB Cable (see Figure 2.2)
- 6-pin and 9-pin “Y” Deutsch Adapter
- 2-pin Delphi / 3-pin Deutsch Adapter (with battery clips)
- Carrying Case
- *USB-Link™ 3 Quick Start Guide*

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**NOTE:** USB-Link™ 3 drivers and this manual are available for download at the Cummins website: <https://cumminsengines.com/inline-manuals>

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## Product Specifications

The Cummins USB-Link™ 3 is configured with the following specifications:

Feature	Data
Physical Dimensions	6.75" x 3.75" x 1.06" (171 mm x 95 mm x 27 mm)
Weight	8 oz. (0.22 kg)
Power Requirements	6 - 32 VDC @ 350 mA maximum
Operating Temperature	0 to +50 °C
API Driver	TMC RP1210A, RP1210B, and RP1210C compliant
Vehicle Protocols Supported	<ul style="list-style-type: none"> <li>• CAN FD / J1939 FD / ISO15765 FD - 250K, 500K, 1M b/s with auto baud detection</li> <li>• Single-wire CAN (SWCAN)</li> <li>• ISO 11898-3 Fault Tolerant CAN (FTCAN)</li> <li>• DOIP</li> <li>• J1708</li> <li>• J1850 VPW (Class 2)</li> <li>• ISO PWM (SCP)</li> <li>• ISO 9141 / KWP2000 (ISO 14230) K/L Line</li> <li>• ALDL 9600 and 8192 baud</li> <li>• ATEC 160 baud</li> </ul>
USB Communication	USB version 2.0
USB Connector	Latching USB Mini-B
Wired Communication	Automotive A to Mini-B USB cable 13 ft. (4 m) maximum
Wireless Communication <b>Wireless Edition only</b>	<ul style="list-style-type: none"> <li>• Bluetooth® Class 1 adapter (up to 50 ft range)</li> <li>• Dual band Wi-Fi (802.11 AC)</li> </ul>
Vehicle Connector	High Density D-sub 26-pin Male (HD26M)

## System Requirements

Confirm your PC meets the following system requirements:

Component	Requirement
IBM PC-compatible computer	<ul style="list-style-type: none"><li>• 1GHz processor or more</li><li>• RAM: 4GB or more (8GB recommended)</li><li>• USB port, version 2.0 or higher</li><li>• Wi-Fi and/or Bluetooth</li></ul>
Operating system	<ul style="list-style-type: none"><li>• Windows® 10</li><li>• Windows® 11</li></ul>
Wi-Fi wireless network	<ul style="list-style-type: none"><li>• Wi-Fi (802.11a, b, g, n, or AC)</li></ul>
Bluetooth®	<ul style="list-style-type: none"><li>• Bluetooth 2.1 or higher</li></ul>

## Device Features

The image below details the features of the USB-Link™ 3 Wireless Edition.



Figure 2.1 Cummins USB-Link™ 3 Wireless and Wired Editions

### Legend

- |                      |                       |
|----------------------|-----------------------|
| A – Vehicle Port     | E – Wireless Comm LED |
| B – Power LED        | F – Pairing Button    |
| C – Vehicle Data LED | G – USB Port          |
| D – Fault LED        |                       |

## Device Features

These features perform the same whether in Bluetooth® or Wi-Fi mode:

Feature	What It Does
Vehicle Port	Connects the USB-Link™ 3 to a vehicle/engine for power and data.
Power LED	Illuminates when the device receives power.
Vehicle Data LED	Illuminates when the device is receiving data from the vehicle.
Fault LED	Illuminates when a problem is detected.
USB Port	Connects the device to your PC (wired connection). Latching USB Mini-B Connector for connection to PC host. Not used with iOS device.

The Wireless LED and the Pairing Button perform differently depending on which mode (i.e., Bluetooth® or Wi-Fi) the device is in.

Feature	What It Does
Wireless Comm LED: <b>Bluetooth® Mode</b>	<p>If the device is <b>Discoverable</b>:</p> <ul style="list-style-type: none"> <li>• Illuminates solid blue when connected.</li> <li>• Blinks every second when not connected.</li> </ul> <p>If the device is <b>Non-Discoverable</b>:</p> <ul style="list-style-type: none"> <li>• Illuminates solid blue when connected.</li> <li>• Off when not connected.</li> </ul>
Wireless Comm LED: <b>Wi-Fi—Mini Access Point Mode</b>	<p><b>Mini Access Point Mode:</b></p> <ul style="list-style-type: none"> <li>• Illuminates solid white when a client PC connects to the device.</li> <li>• Off when no client PC is connected.</li> </ul>

## Device Features

Feature	What It Does
Wireless Comm LED: <b>Wi-Fi Infrastructure Mode</b>	<p><b>Infrastructure Mode:</b></p> <ul style="list-style-type: none"> <li>• Stays off when not associated with a network Access Point.</li> <li>• Blinks every second when associated with an access point, but no IP address assigned.</li> <li>• Illuminates solid orange when successfully assigned an IP address.</li> </ul>
Pairing Button <b>Bluetooth Mode</b>	<p>The Pairing Button is used to change the status of the device. The two status modes are:</p> <ul style="list-style-type: none"> <li>• <b>Non-Discoverable</b>—When the USB-Link™ 3 is Non-Discoverable, it will only connect to a host device with which it has previously been paired.</li> <li>• <b>Discoverable</b>—When the USB-Link™ 3 is Discoverable, a host device can detect, pair, or connect to it.</li> </ul> <p>To change the mode from Non-Discoverable to Discoverable, press and hold the Pairing button until the Wireless LED begins to flash blue (about 3 seconds).</p> <p>Once a connection is established, the LED turns solid blue. After two minutes, discover-ability will time out, and the device will go back to Non-Discoverable status.</p>
Pairing Button <b>Wi-Fi Mode</b>	<p>When using Wi-Fi, the USB-Link™ 3 can be configured for either of the following modes:</p> <ul style="list-style-type: none"> <li>• Mini-Access Point (Wi-Fi default)</li> <li>• Infrastructure</li> </ul> <p><b>Note:</b> The USB-Link™ 3 cannot be used in Infrastructure mode until it has been configured using the Explorer utility (see <i>Using the USB-Link™ 3 Explorer</i> in Chapter 3 of this manual).</p>

## Communication Options: Wired vs Wireless

Prior to using the USB-Link™ 3, choose how you want the unit to communicate with your PC. There are three options:

- Wired, USB Connection (pg. 12)
- Wireless, Bluetooth® Connection (pg. 13)
- Wireless, Wi-Fi Connection (pg. 14)

### Wired USB Connection

A wired USB connection provides the advantages of high data throughput, low latency, and a high-reliability data connection.

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**IMPORTANT:** Electronic Control Module (ECU) reprogramming requires both high throughput and critical timing, and should *a/ways* use a USB-to-PC wired connection.

---

Wired communication between the USB-Link™ 3 and your PC requires an automotive A to Mini-B USB cable (shipped with the USB-Link™ 3).



**Figure 2.2** Automotive A to Mini-B USB Cable

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**NOTE:** For detailed instructions on making a wired connection, refer to *Making a Wired USB Connection* in Chapter 3 of this manual.

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## Wireless Bluetooth Connection

The USB-Link™ 3 can be configured to use Bluetooth® wireless technology to provide communication between the USB-Link™ 3 and your PC. When two Bluetooth® devices are paired, a persistent link is created between the two devices. Once configured, future connections between the devices are authenticated automatically.

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**NOTE:** For detailed instructions on configuring the USB-Link™ 3 for Bluetooth®, refer to *Making a Bluetooth Wireless Connection*, in Chapter 3 of this manual.

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## **Wireless Wi-Fi Connection**

The USB-Link™ 3 can be configured to use Wi-Fi to provide wireless communication between the USB-Link™ 3 and your PC.

There are two network options:

- Mini Access Point Mode (pg. 15)
- Infrastructure Mode (pg. 16)

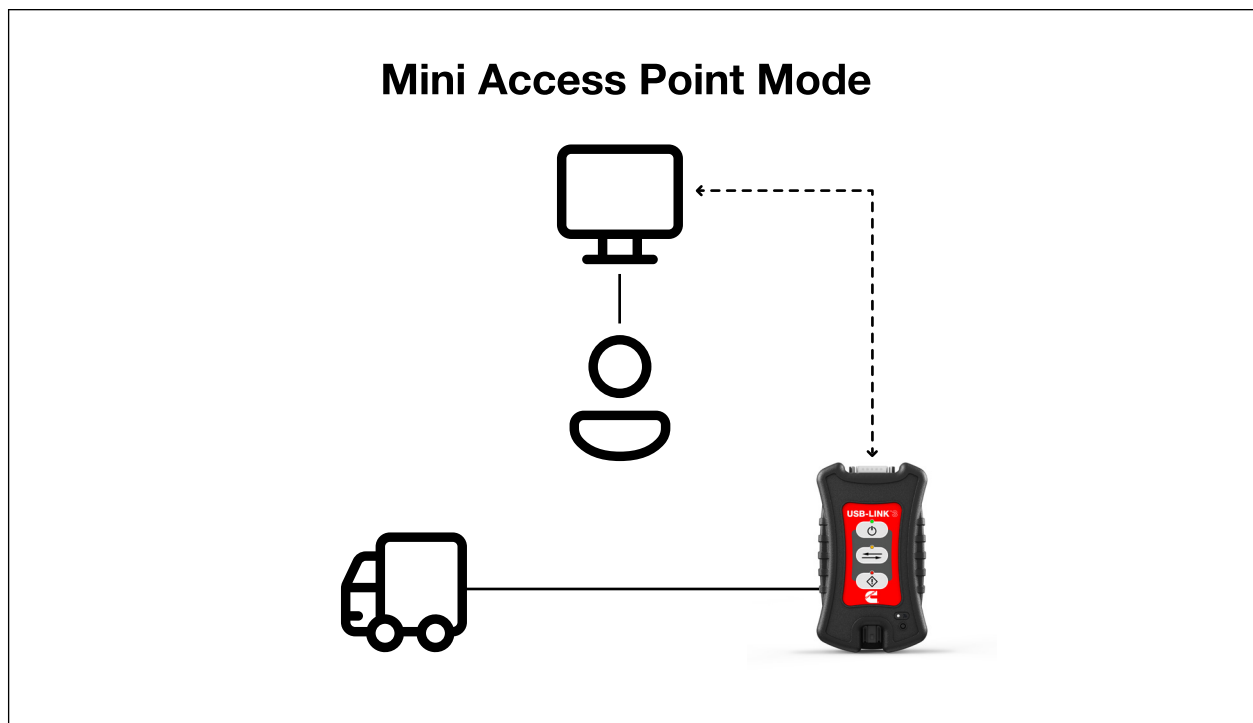
If you use your PC's internal wireless network card to connect to both your company's network and the USB-Link™ 3, you will not have access to the Internet until you have finished your session.

If you prefer to have access to the Internet while using performing diagnostics, you will need an additional wireless network card dedicated for use with the USB-Link™ 3.

Wi-Fi performance can be affected by network congestion, radio frequency interference, and too many wireless devices in the vicinity. These conditions may result in dropped messages. For this reason, wireless communication is not recommended for ECU reprogramming (i.e, reflashing).

## Mini Access Point Mode (Peer-to-Peer)

The easiest and quickest way to connect your USB-Link™ 3 to your PC is with the Mini Access Point mode. In Mini Access Point mode (also known as Access Point Emulation mode), the PC communicates directly with the device. The USB-Link™ 3 emulates the function of an access point, allowing the PC to connect directly to the USB-Link™ 3. When the PC is connected to the USB-Link™ 3 in Mini Access Point mode, neither device is connected to the company network.



**Figure 2.3** *Mini Access Point Mode*

If you use your PC's internal wireless network card to connect to both your company's network and the USB-Link™ 3, you will not have access to the Internet until you have finished your session. If you prefer to have access to the Internet while using performing diagnostics, you will need an additional wireless network card dedicated for use with the USB-Link™ 3.

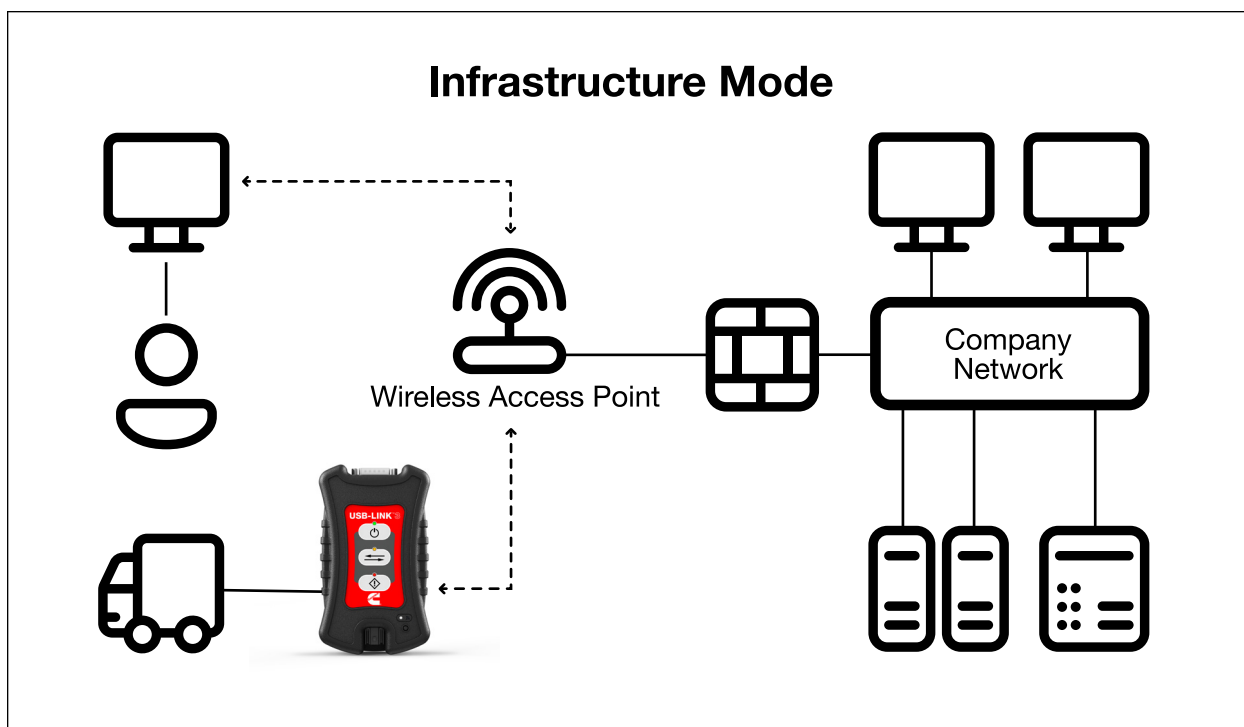
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**NOTE:** For instructions on connecting the USB-Link™ 3 and your PC using Mini Access Point Mode, see *Connect Using Wi-Fi*, in Chapter 3 of this manual.

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## Infrastructure Mode (Connecting to your Company's Network)

In Infrastructure mode, your PC communicates with your company's computer network through a Wireless Access Point (not included), which acts as a bridge between the wireless network and the wired network. In this mode, the USB-Link™ 3 is configured to communicate with the same access point. All communication between the PC and the USB-Link™ 3 passes through the access point.



**Figure 2.4** Infrastructure Mode

**NOTE:** The settings for connecting to your company network may differ from one installation to another. To ensure network security, your Information Technology (IT) administrator will need to oversee the installation and specify the appropriate configuration parameters. Your IT administrator should be able to properly configure the USB-Link™ 3 for infrastructure mode, using the USB-Link™ 3 Explorer utility (see *Switching Modes: Mini Access Point and Infrastructure* in Chapter 3 of this manual).

# Chapter 3:

## Installing the Drivers and Setting Up the Device

- Installation Process Outline (pg. 18)
  - Step 1: Install the Drivers (pg. 19)
  - Step 2: Connect the USB-Link™ 3 to a Vehicle (pg. 27)
    - Making a Wired USB Connection (pg. 28)
    - Making a Wireless Bluetooth Connection (pg. 29)
      - Pair the Device (pg. 30)
    - Making a Wireless Wi-Fi Connection (pg. 32)
      - Mini Access Point Mode (pg. 32)
      - Infrastructure Mode (pg. 35)
  - Step 3: Test the Connection (pg. 36)
    - Using the USB-Link™ 3 Explorer Utility (pg. 39)
      - The Configuration Tab (pg. 41)
    - Switching Modes: Mini Access Point and Infrastructure (pg. 42)
      - The File Menu (pg. 44)
      - The Tools Menu (pg. 45)
        - Ping (pg. 45)
        - Options (pg. 46)
      - The Help Menu (pg. 48)

This chapter provides instructions for installing USB-Link™ 3 drivers and utilities, connecting the USB-Link™ 3 to a vehicle, connecting to a wireless network, testing the connection, and using the USB-Link™ 3 Explorer utility.

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**NOTE:** Images used throughout this manual are for illustrative purposes only.

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### Installation Process Outline

**Step 1:** Install the USB-Link™ 3 drivers (pg. 19).

**Step 2:** Connect the USB-Link™ 3 to the vehicle (pg. 27).

Connect to your PC using one of the following options:

- A wired, USB connection (pg. 28)
- A wireless, Bluetooth® connection (pg. 29)
- A wireless, Wi-Fi connection

There are two options:

- Mini Access Point Mode (pg. 32)
- Infrastructure Mode (pg. 35)

**Step 3:** Test the connection between the USB-Link™ 3 and the vehicle using the Cummins Validation Tool (pg. 36).

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**NOTE:** Images used throughout this manual are for illustrative purposes only.

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## Step 1: Install the Drivers

Prior to using the USB-Link™ 3, you will need to install the necessary USB-Link™ 3 drivers. The USB-Link™ 3 drivers are compatible with Microsoft®, Windows® 10, and Windows® 11.

---

**IMPORTANT:** Remember, you *must* have Administrator security rights *and* be logged in as “Admin” to successfully complete the installation process outlined in this manual.

---

The following procedure requires that you have Internet access.

### To install the drivers on your laptop or PC:

1 On your laptop or PC, navigate to the following website:

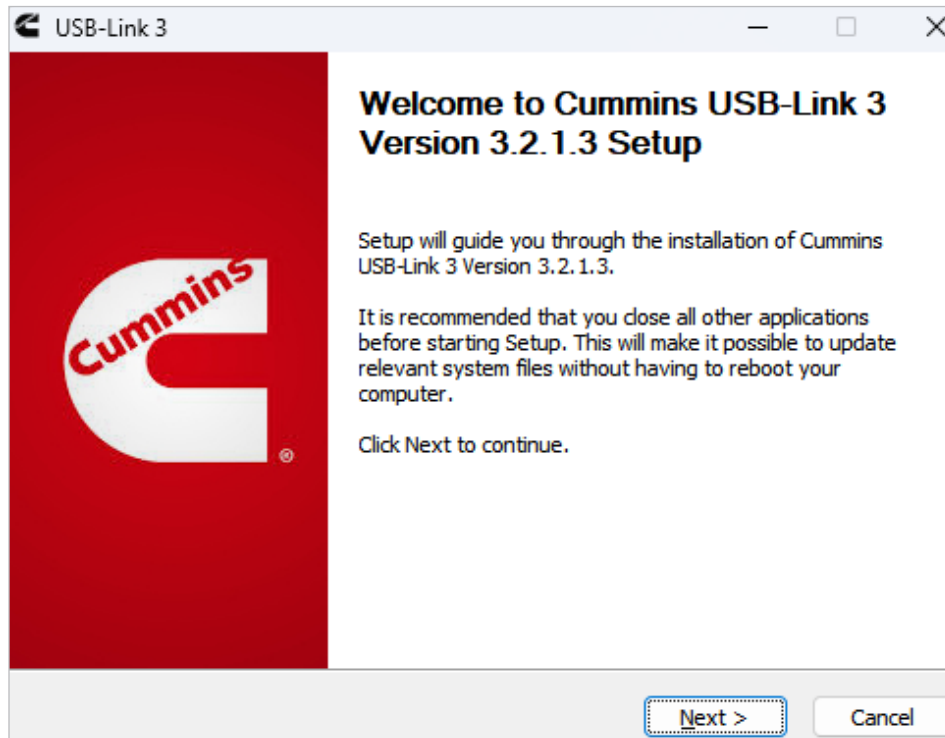
<https://cumminsengines.com/inline-downloads>

2 Select the latest version of the USB-Link™ 3 drivers.

3 Click **Download**.

4 Click **Open** to open the downloaded file.

The **Welcome to Cummins USB-Link™ 3 Setup** screen is displayed.



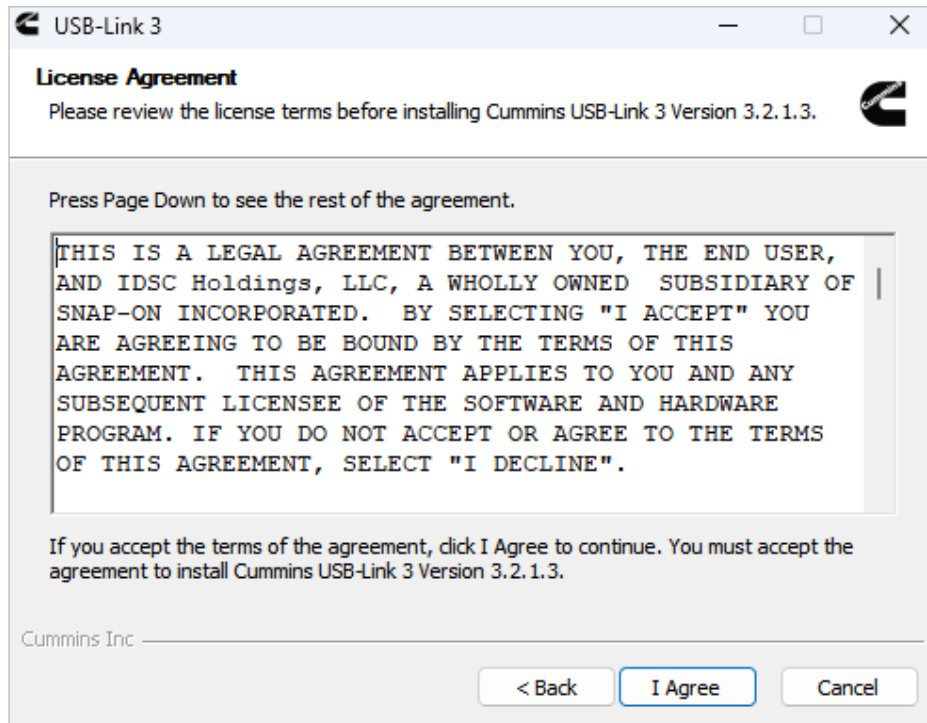
**Figure 3.2** *Welcome to Cummins USB-Link™ 3 Setup Screen*

5 Carefully read the information displayed on the screen and follow the recommendations.

6 Click **Next**.



The **License Agreement** screen is displayed.



**Figure 3.3** License Agreement Screen

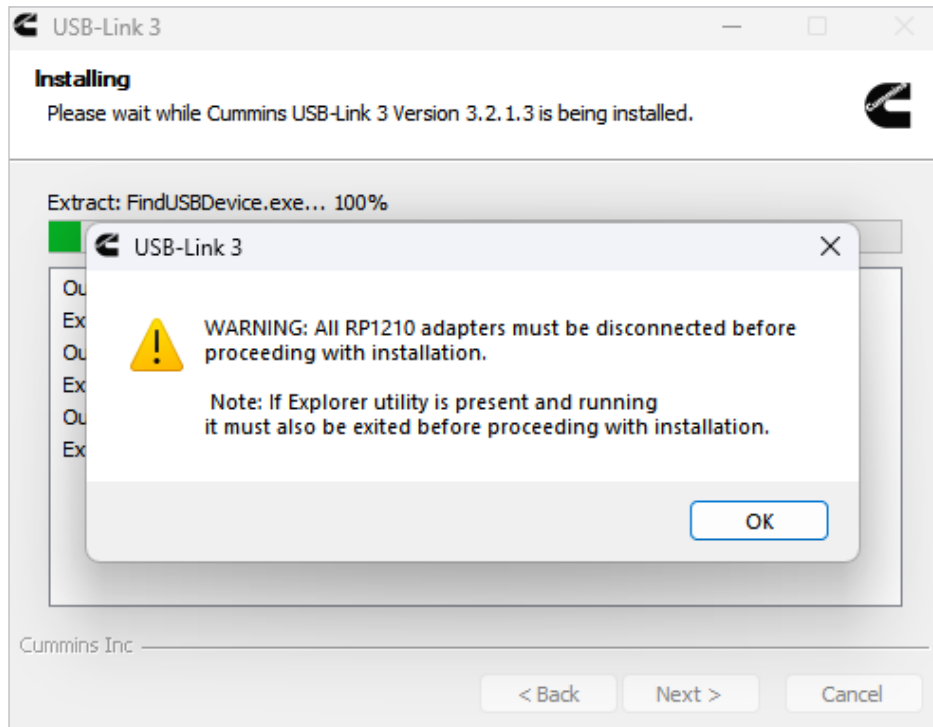
**7** Read all the information on this screen, then click **I Agree**.

---

**NOTE:** If you do not agree to the terms, click **Cancel**. A message is displayed prompting you to quit the USB-Link™ 3 Setup. Click **Yes** to quit.

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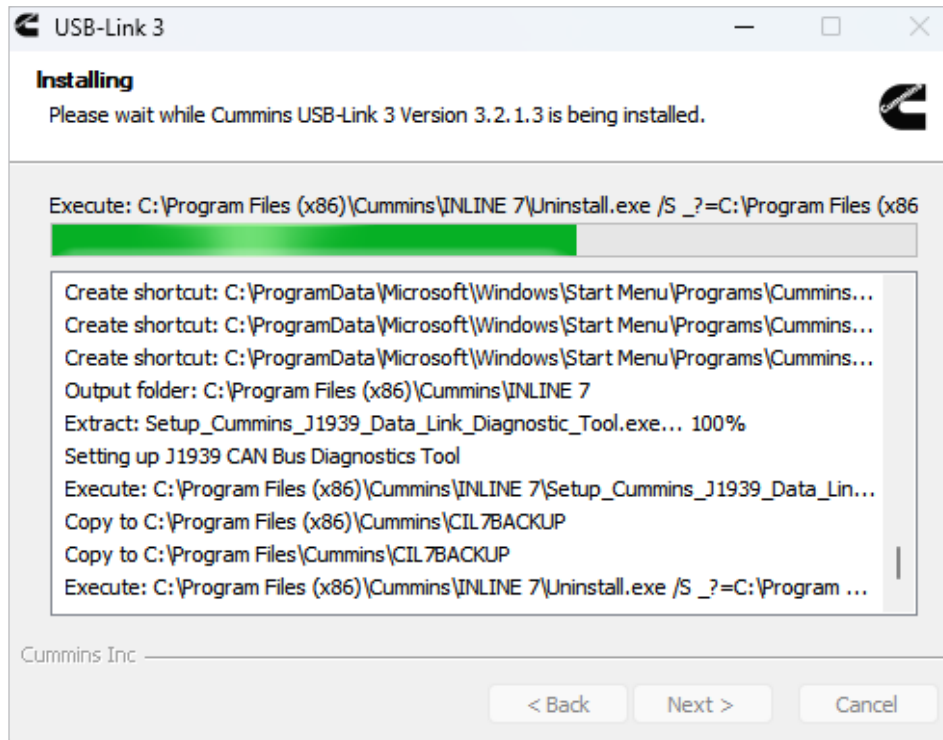
The following warning message is displayed.



**Figure 3.4** Warning Message

- 8** Carefully read the warning message. Disconnect all RP1210 adapters connected to your laptop or PC prior to proceeding with the installation.
- 9** Once you have complied with the requirements of the warning message, click **OK**.

When the installation begins, the following screen is displayed.

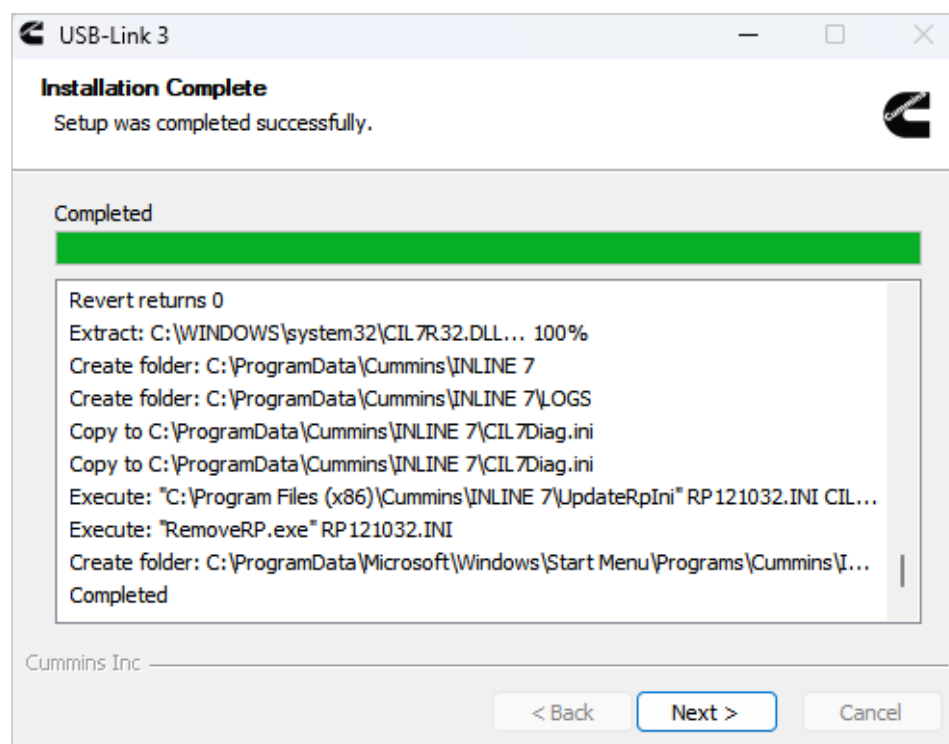


**Figure 3.5** *Installation Screen*

**10** Click **Install** to continue.

**11** Wait briefly while the installation continues.

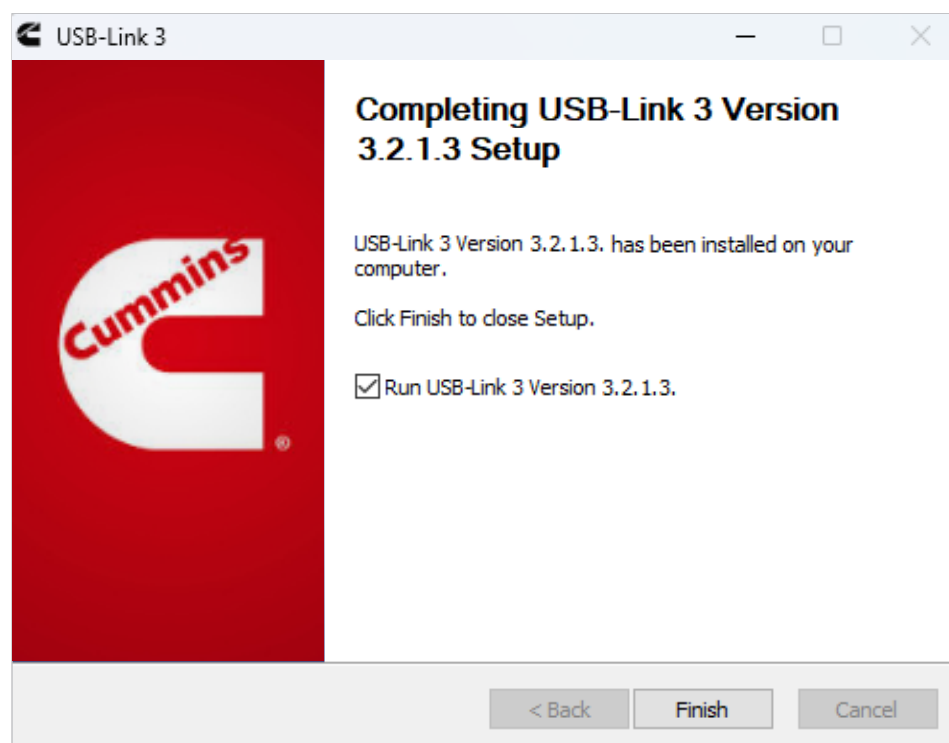
The **Installation Complete** screen is displayed.



**Figure 3.6** *Installation Complete Screen*

**12** Click **Next**.

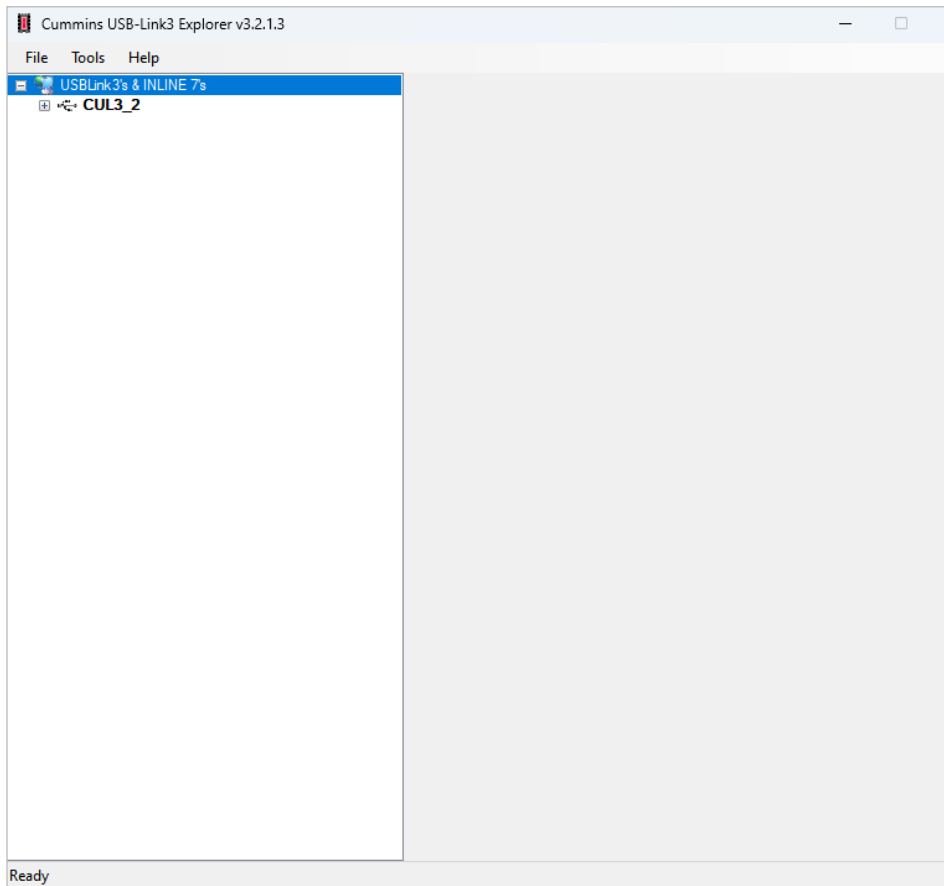
The following completion screen is displayed.



**Figure 3.7** Completion Screen

**13** Click **Finish**.

The **USB-Link™ 3 Explorer** utility opens.



**Figure 3.8** *USB-Link™ 3 Explorer Utility*

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**NOTE:** For information on using the USB-Link™ 3 Explorer, see *Using the USB-Link™ 3 Explorer Utility* on page 40 of this manual.

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**14** Proceed to **Step 2: Connect the USB-Link™ 3 to a Vehicle** (pg. 27)

## Step 2: Connect the USB-Link™ 3 to a Vehicle

Once you have installed the USB-Link™ 3 drivers, you are ready to connect the USB-Link™ 3 to a vehicle using an adapter cable. The following adapters are included in the USB-Link™ 3 kit:

- 6-pin and 9-pin “Y” Deutsch Adapter
- 2-pin Delphi / 3-pin Deutsch Adapter (with battery clips)

Connect the USB-Link™ 3 to your PC using one of the following options:

- **A wired, USB connection** (pg. 28)
- **A wireless, Bluetooth® connection** (pg. 29)
- **A wireless Wi-Fi connection** (pg. 32)
  - Mini Access Point Mode (pg. 32)
  - or
  - Infrastructure Mode (pg. 35)

\*Wireless Edition only

## Making a Wired USB Connection

To connect the USB-Link™ 3 to your PC using a USB cable:

- 1 Connect the USB cable (i.e., an automotive A to Mini-B USB cable) to the USB port of the PC or laptop.
- 2 Connect the other end of the cable to the port on the bottom of the USB-Link™ 3.
- 3 Connect the DB26 female end of the appropriate adapter cable to the USB-Link™ 3.
- 4 Attach the other end of the adapter cable (i.e., Deutsch connector) to the vehicle's diagnostic connector.

---

**NOTE:** The vehicle's diagnostic connector is typically located under the dashboard on the driver's side, or beside the driver's seat. It can also be located in the engine compartment near the electronic control module (ECM).

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- 5 Proceed to **Step 3: Test the Connection** (pg. 36).



## Making a Wireless Bluetooth Connection – Wireless Edition only

When two Bluetooth devices are paired, a persistent link is created between the two devices. After the devices are paired, future connections are authenticated automatically.

### To connect via Bluetooth:

- 1 Connect the DB26 female end of the appropriate adapter cable to the USB-Link™ 3.
- 2 Attach the other end of the adapter cable (i.e., Deutsch connector) to the vehicle's diagnostic connector.

---

**NOTE:** The vehicle's diagnostic connector is typically located under the dashboard on the driver's side, or beside the driver's seat. It can also be located in the engine compartment near the electronic control module (ECM).

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- When connected, the **Power LED** (green) on the USB-Link™ 3 should be illuminated (on).
- If the **Power LED** is not illuminated, turn the vehicle's key to the ON position, leaving the engine off.

- 3 Press and hold the **Pairing Button** until the Wireless LED begins to flash blue (about 3 seconds).

This will put the USB-Link™ 3 in Discoverable Mode. When the USB-Link™ 3 is Discoverable, a host device can detect, pair, or connect to it. Once a connection with the ECM is established, the LED will be solid blue. After two minutes, discoverability will time out, and the device will return to Non-Discoverable status.

---

**NOTE:** See **Device Features** in Chapter 2 for a detailed discussion of the Pairing Button.

---

- 4 Proceed to **Pair the Device** (pg. 30)

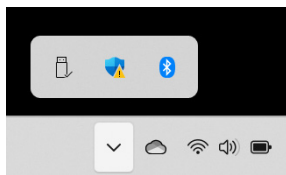
## Pair the Device

Use the Windows® utility to pair the device (i.e., the Cummins USB-Link™ 3 with your PC).

**To pair the device:**

**1** Click on the **Show Hidden Icons** arrow in your PC's System Tray.

The hidden icons are displayed.

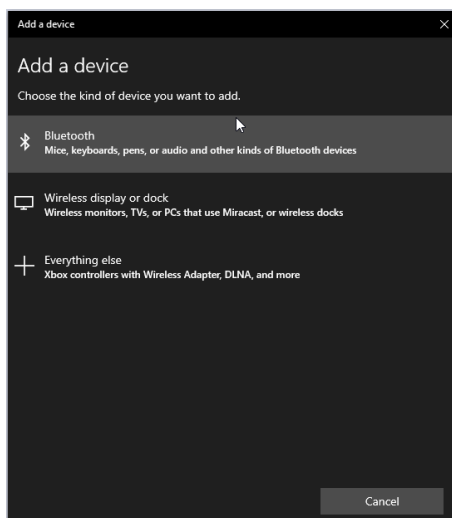


**Figure 3.9** *Hidden Icons*

**2** Right-click on the Bluetooth® icon.

**3** Click **Add a Bluetooth® Device**.

The **Add a device** screen is displayed.



**Figure 3.10** *Add a Device Screen*

**4** Select the device displayed that matches the serial number on the back of your Cummins USB-Link™ 3 (e.g., **CUL3\_XXXXXX**).

## Pair the Device

5 Click **Connect**.

6 Click **Done**.

7 Proceed to **Step 3: Test the Connection** (pg. 36)

## Making a Wireless Wi-Fi Connection – Wireless Edition only

When using Wi-Fi, the USB-Link™ 3 can be configured for either of the following modes:

- Mini Access Point, the Wi-Fi default (pg. 32)
- Infrastructure (pg. 35)

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**NOTE:** The USB-Link™ 3 cannot be used in Infrastructure mode until it has been configured using the Explorer utility (see *Using the USB-Link™ 3 Explorer Utility* on page 40 of this chapter).

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### Mini Access Point Mode

The easiest and quickest way to connect your USB-Link™ 3 to your PC is with the Mini Access Point mode. In Mini Access Point mode (also known as Access Point Emulation mode), the PC communicates directly with the USB-Link™ 3. The USB-Link™ 3 emulates the function of an access point, allowing the PC to connect directly to the USB-Link™ 3. When the PC is connected to the USB-Link™ 3 in Mini Access Point mode, neither device is connected to the company network.

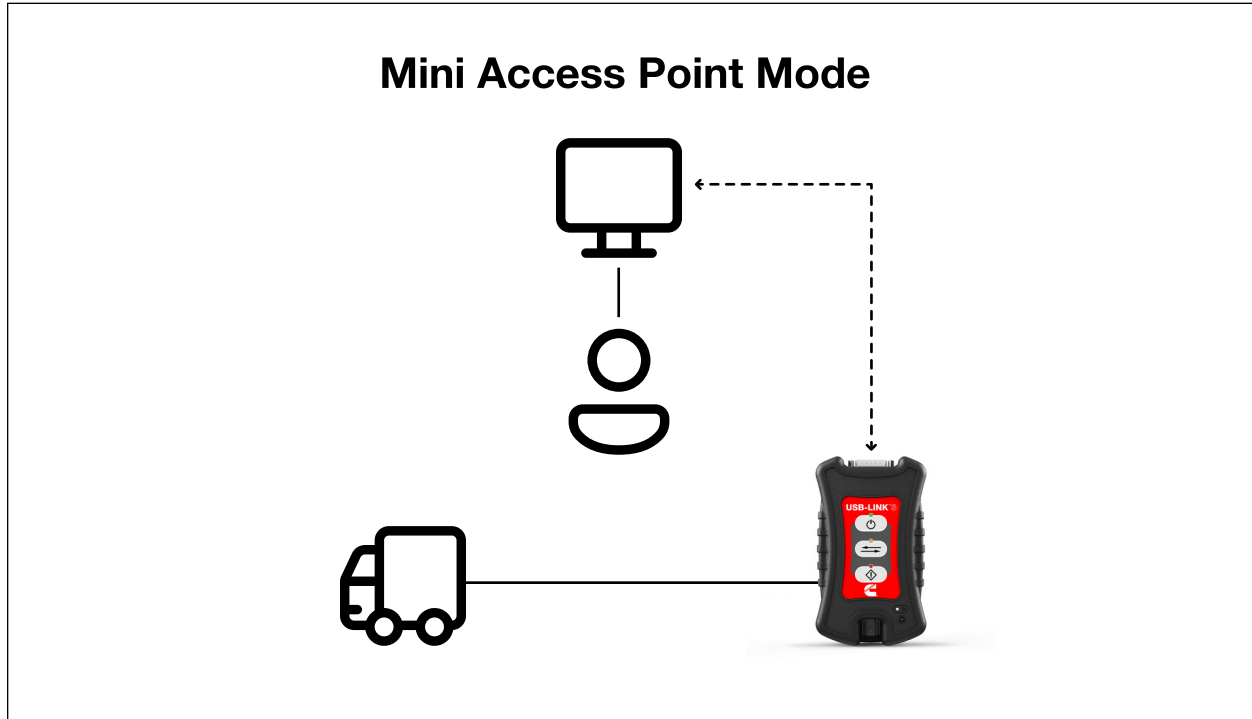


Figure 3.11 Mini Access Point Mode

**To connect the USB-Link™ 3 to your PC using Mini Access Point Mode:**

- 1** Connect the DB26 female end of the appropriate adapter cable to the connector on the top of the USB-Link™ 3.
- 2** Attach the other end of the adapter cable (i.e., Deutsch connector) to the vehicle's diagnostic connector.

---

**NOTE:** The vehicle's diagnostic connector is typically located under the dashboard on the driver's side, or beside the driver's seat. It can also be located in the engine compartment near the electronic control module (ECM).

---

- When connected, the **Power LED** (green) on the USB-Link™ 3 should be illuminated (On).
- If the **Power LED** is not illuminated, turn the vehicle's key to the ON position, leaving the engine Off.

- 3** Navigate to the **System Tray** on your PC.



**Figure 3.12** Windows® System Tray

- 4** Click on the Network icon in the System Tray.

The Network Selection screen is displayed.

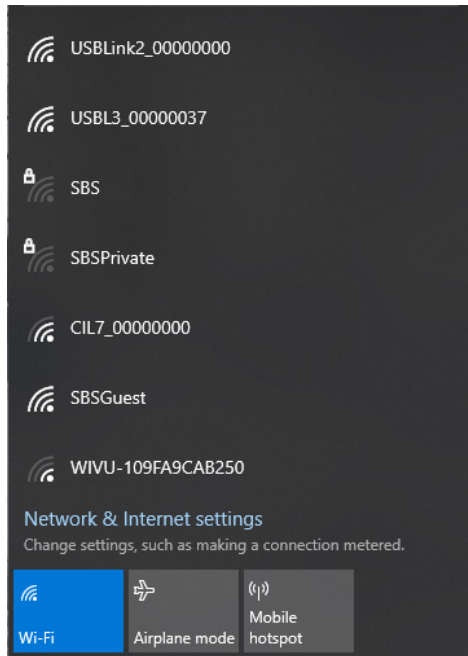


Figure 3.13 Network Selection Screen

5 Select **CUL3\_XXXXXX** from the list (XXXXXX represents the serial number of the USB-Link™ 3).

---

**NOTE:** If CUL3\_XXXXXX is not displayed, make sure you are connected to the vehicle and are within range (i.e., within 50 ft.). You may need to move your PC closer to the vehicle.

---

6 Click **Connect**.

The device is now connected and ready to use.

7 Proceed to **Step 3: Test the Connection** (pg. 36)

## Infrastructure Mode

In Infrastructure mode, your PC communicates with your company's computer network through a Wireless Access Point (not included), which acts as a bridge between the wireless network and the wired network. In this mode, the USB-Link™ 3 is configured to communicate with the same access point. All communication between the PC and the USB-Link™ 3 passes through the access point.

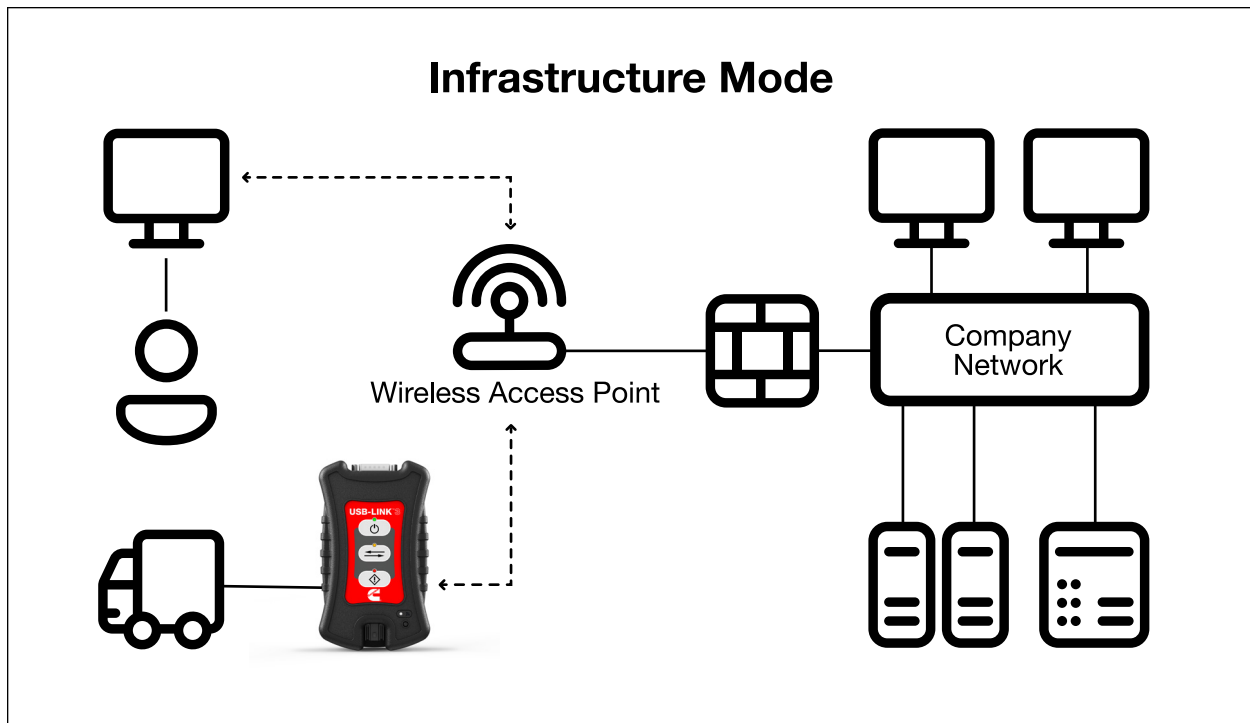


Figure 3.14 Infrastructure Mode

**NOTE:** The settings for connecting to your company network may differ from one installation to another. To ensure network security, your Information Technology (IT) administrator will need to oversee the installation and specify the appropriate configuration parameters. Your IT administrator should be able to properly configure the USB-Link™ 3 for infrastructure mode, using the USB-Link™ 3 Explorer utility (see *Switching Modes: Mini Access Point and Infrastructure* on page 43).

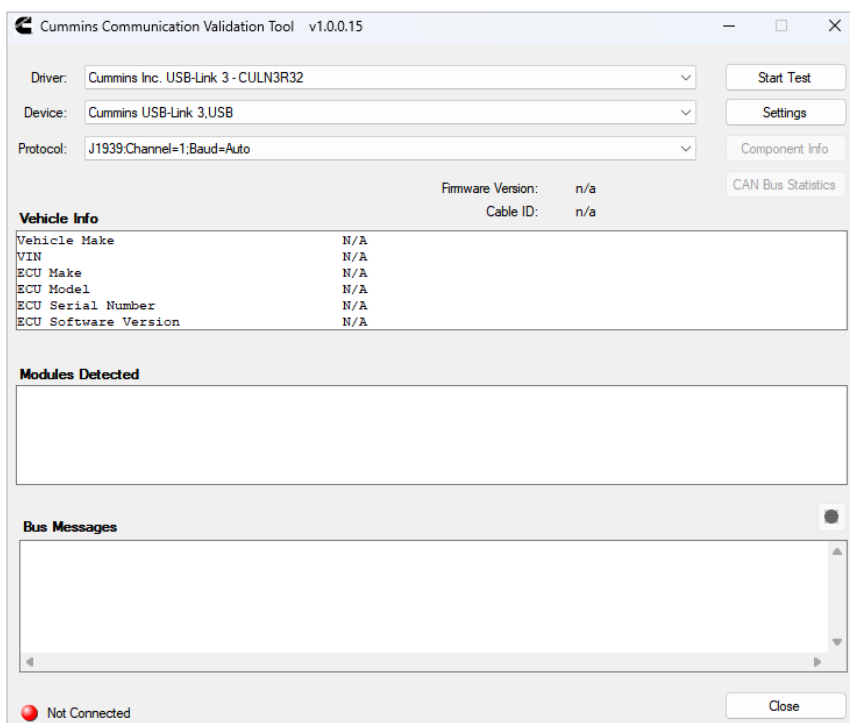
## Step 3: Test the Connection

Use the Cummins Validation Tool to test the connection between the USB-Link™ 3 and the vehicle. At startup, the Cummins Validation Tool checks for any USB-Link™ 3 drivers installed on the PC.

**To test the connection between the USB-Link™ 3 and the vehicle:**

**1** Click **Start** and then select **All Programs > CUMMINS > Cummins Validation Tool**.

The application is started and the **Cummins Validation Tool** screen is displayed.



**Figure 3.15** Cummins Validation Tool: Status Not Connected

**2** Use the button in the Driver box to select the appropriate driver (i.e., **Cummins USB-Link™ 3**).

**3** Use the button in the **Device** box to select the appropriate device (for example, Cummins USB-Link™ 3, Bluetooth®).

- The **Device** box lists all the devices supported by the Cummins USB-Link™ 3 drivers installed on the PC.



4 Use the button in the **Protocol** box to select the appropriate protocol (e.g., J1939, CAN, ISO 15365, J1708).

- The **Protocol** box lists only the protocols supported by the device selected in the **Device** box.

5 Press the **Start Test** button.

The **Cummins Communication Validation Tool** screen is refreshed and the Connection Indicator button (located in the bottom left corner of the display) changes from Not Connected (red) to Connected (green).

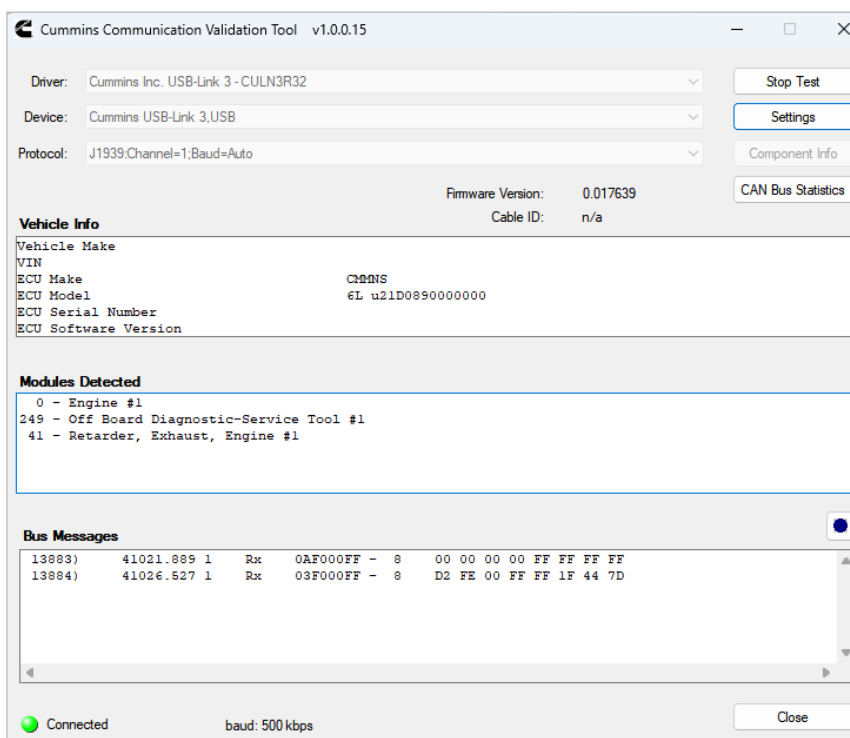


Figure 3.16 Communication Validation Tool: Status Connected

The **Vehicle Info** window displays information about the vehicle to which you are connected (depending on the protocol selected).

The **Modules Detected** window in the middle of the screen displays a list of all systems seen on the bus. It is used for J1708 and J1939 only. For all other protocols this window will be unavailable (i.e., NOT USED).

The **Bus Messages** window at the bottom of the screen displays data received from the vehicle bus.

If the Connection Indicator button is red (i.e., **Not Connected**), do one of the following:

**For a wireless connection:**

- In the **Device** list, make sure that the appropriate device is selected, for example:
  - USB-Link3, Bluetooth or
  - USB-Link3, WiFi
- In the **Protocol** list, make sure that the appropriate protocol is selected, for example SAE J1939 Protocol.
- Check to ensure that the connections between the USB-Link™ 3 and the vehicle are secure (i.e., the Diagnostic Connector).
- Check to make certain that the Power LED on the USB-Link™ 3 is illuminated.

**For a wired connection using a USB cable:**

- In the **Device** list, make sure that the appropriate device is selected, for example **USB-Link3, USB**.
- In the **Protocol** list, make sure the appropriate protocol is selected, for example SAE J1939 Protocol.
- Check to ensure that the connections between the USB-Link™ 3 and the PC are secure (i.e., the USB cable).
- Check the connections between the USB-Link™ 3 and the vehicle (i.e., the Diagnostic Connector).
- Check to make certain that the Power LED on the USB-Link™ 3 is illuminated.

**6** Click **Stop Test** to end the test, or select another device to test.

---

**NOTE:** For additional information, refer to *Step 2: Connect the USB-Link™ 3 to a Vehicle* (pg. 27)

---

## Using the USB-Link™ 3 Explorer Utility

The USB-Link™ 3 Explorer utility opened automatically when you installed the USB-Link™ 3 drivers and utilities (see Figure 3.8, on page 26).

To re-open the USB-Link™ 3 Explorer once it has been closed, click on the **Show Hidden Icons** arrow in your PC's System Tray.



**Figure 3.18** *Hidden Icons*

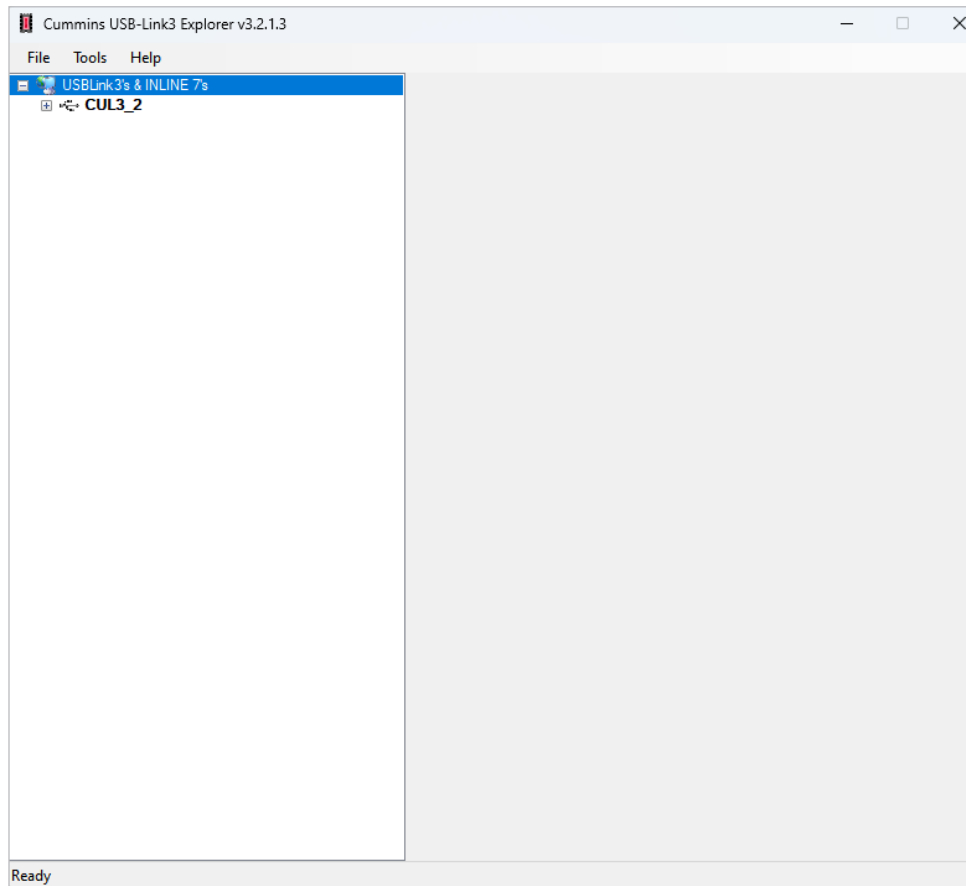
Double-click on the USB-Link™ 3 icon 3.

---

**NOTE:** You can also access the USB-Link™ 3 Explorer from your PC's Start menu. Click **Start** and then select **All Programs > Cummins > USB-Link™ 3 Explorer**.

---

The **USB-Link™ 3 Explorer** opens.



The following menu options are provided:

- File (pg. 44)
- Tools (pg. 45)
- Help (pg. 48)

Each menu option includes a number of features. Menu options are discussed in the following sub-sections.

When you click on a USB-Link™ 3 in the list, the Configuration tab is displayed (Figure 3.20).

## The Configuration Tab

The **Configuration** tab provides the following information:

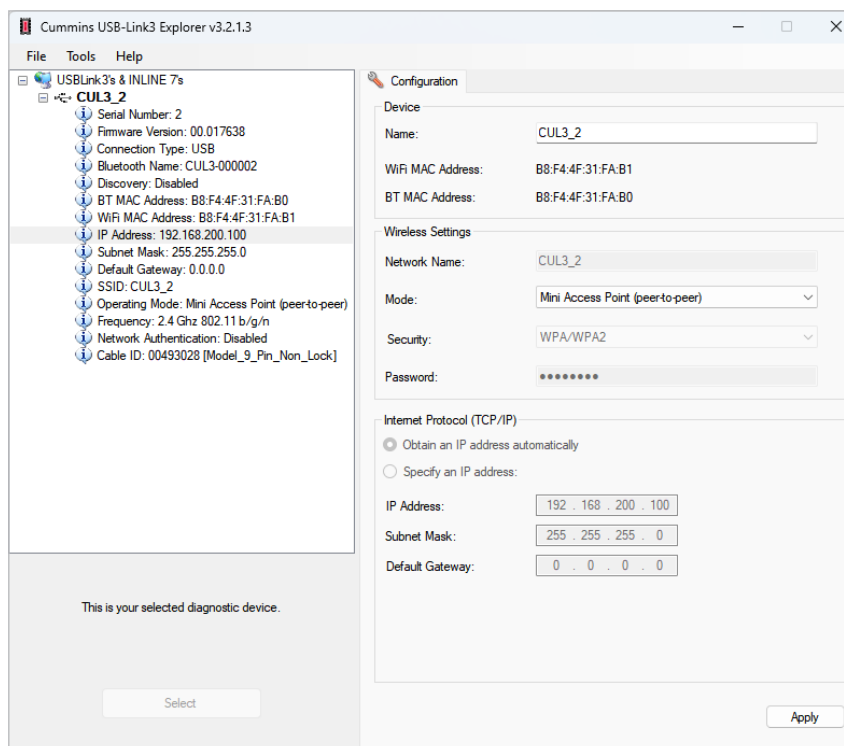
- Device
  - Name
  - MAC Address
- Wireless Settings
- Internet Protocol (TCP/IP) Settings

This information can be useful when troubleshooting network connection problems.

Use the Configuration tab when switching between Mini Access Point and Infrastructure.

**To access the Configuration tab:**

- 1 Click on a **CUL3\_XXXXXX** in the list in the left pane of the Explorer.

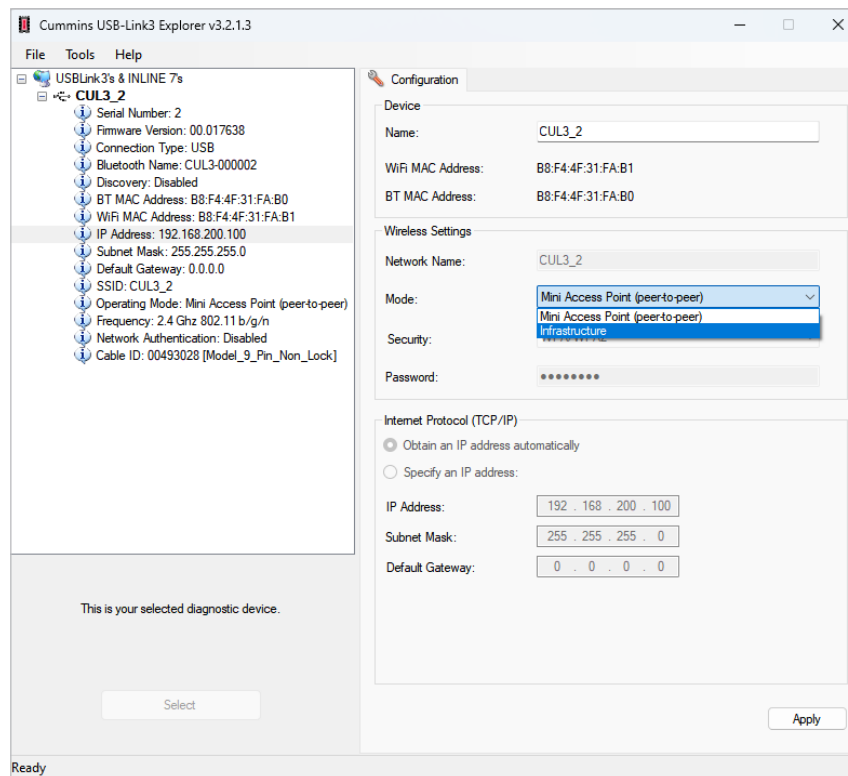


**Figure 3.20** Configuration Tab

## Switching Modes: Mini Access Point and Infrastructure

From the USB-Link™ 3 Explorer Configuration tab, use the **Mode** drop-down menu under Wireless Settings to switch between Mini Access Point and Infrastructure modes.

**NOTE:** For a graphic depiction of a typical Infrastructure Mode setup, see Figure 3.14 (pg. 35)



**Figure 3.21** Wireless Settings: Mode Drop-down Menu

Once you have selected **Infrastructure** from the drop-down menu, additional fields in the Wireless Settings portion of the screen are available.

The following **Wireless Settings** fields are available:

- Network Name
- Security (WPA/WPA2)
- Password

---

**NOTE:** The settings for connecting to your company network may differ from one installation to another. To ensure network security, your Information Technology (IT) administrator will need to oversee the installation and specify the appropriate configuration parameters.

---

The **Internet Protocol (TCP/IP)** portion of the screen is also available to enter the required settings. There are two options:

- Obtain an IP address automatically (i.e., a dynamic IP address)
- Specify an IP address (i.e., a static IP address that does not change)
  - IP Address
  - Subnet Mask
  - Default Gateway

---

**NOTE:** You will need to obtain this information (i.e., IP Address, Subnet Mask) from the designated IT person or network administrator for your location. Depending on how your local network is configured, you may also need to enter Default Gateway information.

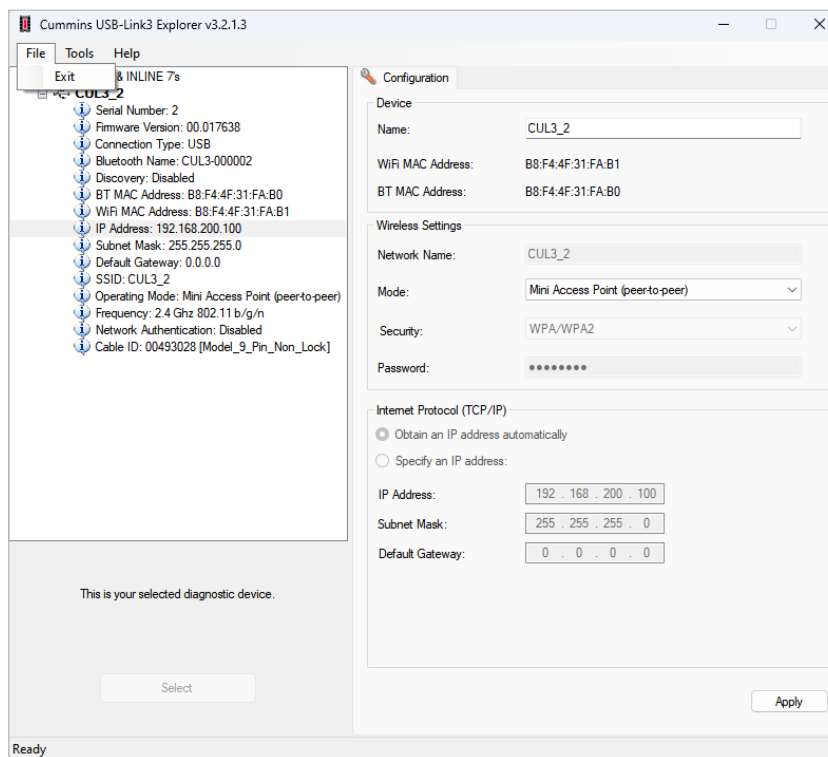
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## The File Menu

The File menu has one feature, Exit. Use the Exit feature to close the USB-Link™ 3 Explorer.

**To exit the USB-Link™ 3 Explorer:**

**1** Select **File** from the USB-Link™ 3 Explorer menu bar.



**Figure 3.22** Exit Selected

**2** Select **Exit**.

The **USB-Link™ 3 Explorer** closes.



## The Tools Menu

The Tools menu provides the following features:

- Ping
- Options

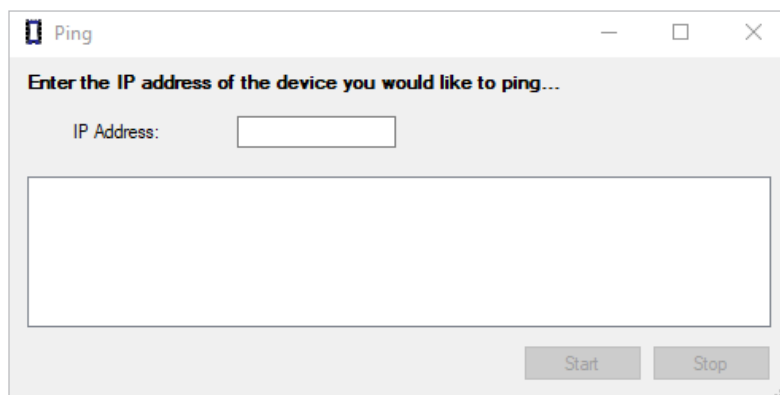
## Ping

The Ping feature uses the PING command to check for the presence of a device on the network.

**To check for a device:**

**1** Select **Tools** from the USB-Link™ 3 Explorer menu bar.

**2** Select **Ping**.



**Figure 3.23** Ping Dialog Box

**3** Enter the IP address of the device you want to locate (e.g., 192.168.123.103).

**4** Click **Start**.

The USB-Link™ 3 Explorer searches for the device and, if found, displays the reply.

**5** Click **Stop**.

**6** Click the **Close** button on the dialog box.

## Options

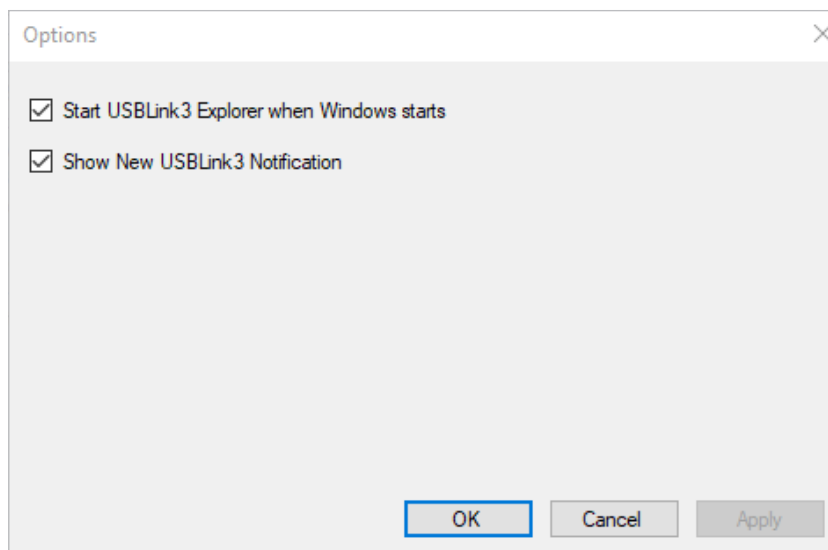
The Options feature provides the following features which are presented as check boxes:

- Start USB-Link™ 3 Explorer when Windows starts (pg. 46)
- Show New USB-Link™ 3 Notification (pg. 47)

## Start USB-Link™ 3 Explorer when Windows Starts

Use this feature to set when the USB-Link™ 3 Explorer opens.

The default setting opens the USB-Link™ 3 Explorer when Windows starts.



**Figure 3.24** Options Menu

To change the default, click on the check box to remove the check mark.

Click **OK**.

## Show New USB-Link™ 3 Notification

Use this feature to set when the New USB-Link™ 3 notification message box displays.

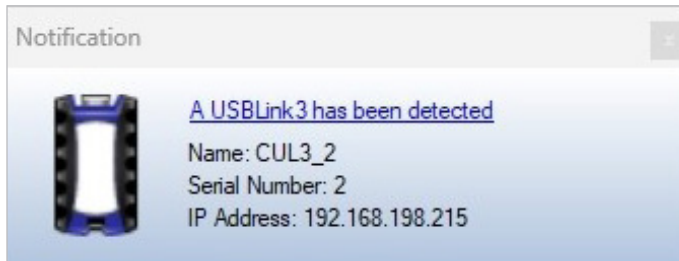


Figure 3.25 Notification Box

The default is set to display the notification message box whenever a new Cummins USB-Link™ 3 is detected.

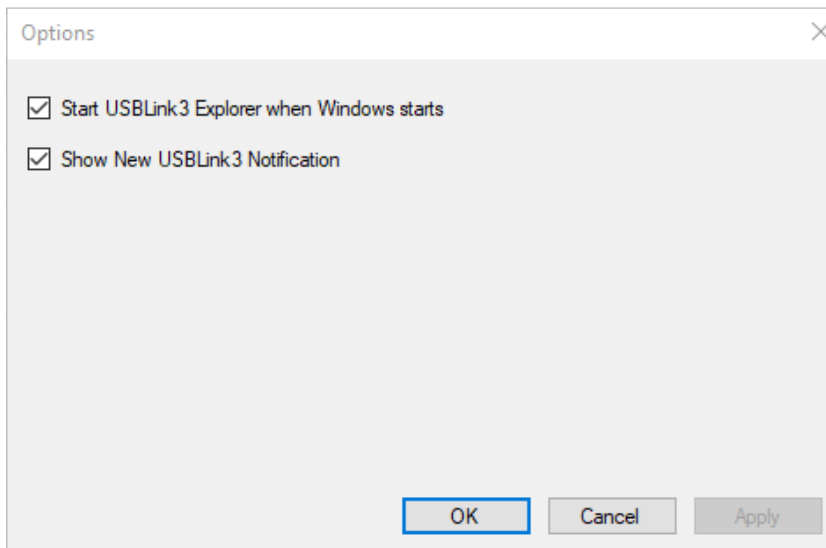


Figure 3.26 Options Menu

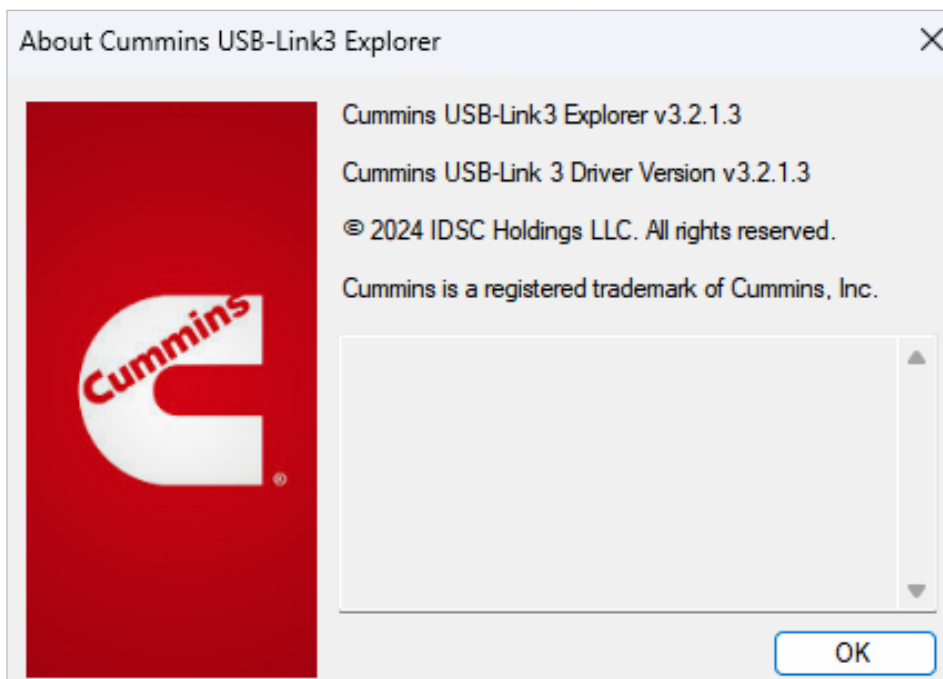
To change the default, click the box to remove the check mark. Then click **OK**.

## The Help Menu

The Help menu has one feature, About. Use the About feature to display information about the Cummins USB-Link™ 3 Explorer.

**To access the Help menu:**

- 1 Select **Help** from the USB-Link™ 3 Explorer menu bar.
- 2 Select **About**.



**Figure 3.27** About Cummins USB-Link™ 3 Explorer

- 3 When you are finished reviewing the information, click **OK** to close the dialog box.