



# **Accelerera Diagnostics**

## **User Guide**

UPDATED 2025

# Accelerera Diagnostics

## GET THE SOFTWARE

Download the latest software version here:

**CUMMINS.COM**

- SOFTWARE SUPPORT PAGE -

Scroll down near the bottom of page  
and click on the "Download" option

### **CUMMINS EMPLOYEES**

- Go to Answers
- Request the software be installed on your computer

### **[ANSWERS SOFTWARE REQUEST](#)**

- Search for "Accelerera Diagnostics"
- Follow the onscreen instructions to install the software



# Accelera Diagnostics

## PRODUCT KEY – SNAP ON ACCOUNT

Accelera Diagnostics requires the purchase of a product key. Once the software is installed on your computer, logon to the Snap-on website and purchase a product key. If you are a new user, create a new user account.

**PURCHASE ACCELERA  
PRODUCT KEY**

accelera.  
by Cummins

You are not logged in.

Home Contact Register Login

Home / Login

**Registered Users**

Returning users can log on using the controls below. New users must register using one of the options in the New Users panel.

Username\*

[Forgot Username?](#)

Password\*

[Forgot Password?](#)

I'm not a robot

reCAPTCHA  
Privacy - Terms

Sign In

**New Users**

You need to create a user account before you can place an order.

[Create a new user account](#)

\* denotes required field  
Page accepts ASCII characters only

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28.0.2.3



# Accelerera Diagnostics

## PRODUCT KEY - PURCHASING

Logon with your username and password.

Select **SOFTWARE** and then select **ADD TO SHOPPING CART**.

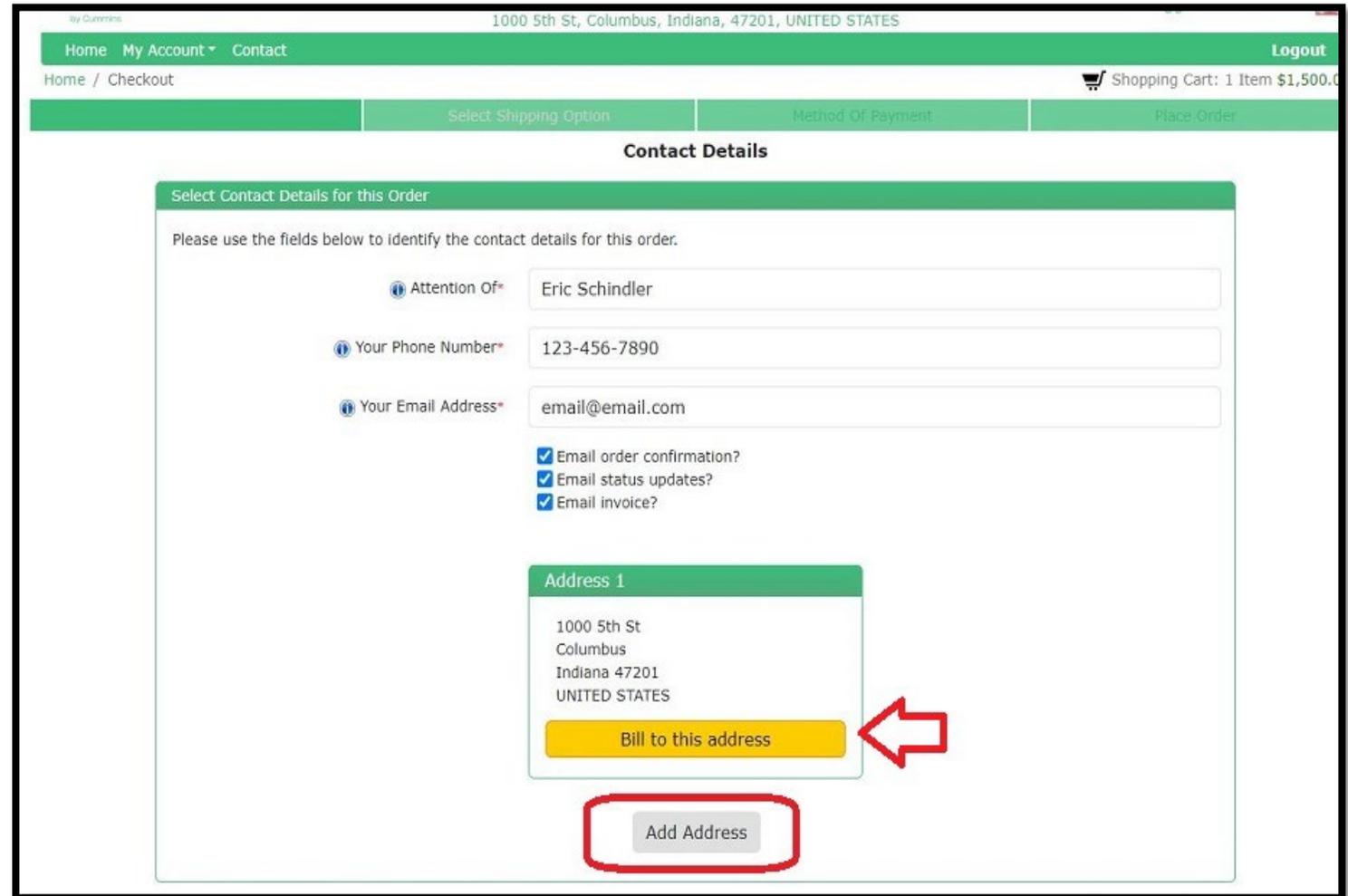
The screenshot shows the Accelerera Diagnostics website interface. At the top left is the Accelerera by Cummins logo. The top right shows a search bar and the user is logged in as 'ow784'. A green navigation bar contains 'Home', 'My Account', and 'Contact', with a 'Logout' button on the right. Below this, the breadcrumb 'Home / Catalog' is visible. On the left, a 'Categories' sidebar lists 'Software' (highlighted with a red box) and 'Accessories'. The main content area is titled 'SOFTWARE' and displays a product card for '6511298 Accelerera™ Diagnostics 1 Year Subscription'. The product description states it is a Windows-based software application for diagnosing, repairing, and maintaining Accelerera™ xEV products. The price is listed as '\$1,500.00\*'. A yellow 'Add to shopping cart' button is highlighted with a red box. At the bottom, there is a disclaimer: 'Page accepts ASCII characters only', followed by trademark information for NEXIQ Technologies, a copyright notice for IDSC Holdings LLC (©2023), and links for 'Terms and Conditions', 'Cookie Policy', and 'Privacy Policy'. The footer also includes 'All prices in USD' and the version number '28.0.2.3'.

# Accelera Diagnostics

## ADD BILLING ADDRESS

Before you can check out, the system requires that your billing address is on file.

Click on the **ADD ADDRESS** button and add your billing address. Once the address is added, click on **BILL TO THIS ADDRESS** to proceed and check out.



1000 5th St, Columbus, Indiana, 47201, UNITED STATES

Home My Account Contact Logout

Home / Checkout Shopping Cart: 1 Item \$1,500.00

Select Shipping Option Method Of Payment Place Order

### Contact Details

Select Contact Details for this Order

Please use the fields below to identify the contact details for this order.

Attention Of\* Eric Schindler

Your Phone Number\* 123-456-7890

Your Email Address\* email@email.com

Email order confirmation?  
 Email status updates?  
 Email invoice?

**Address 1**

1000 5th St  
Columbus  
Indiana 47201  
UNITED STATES

Bill to this address

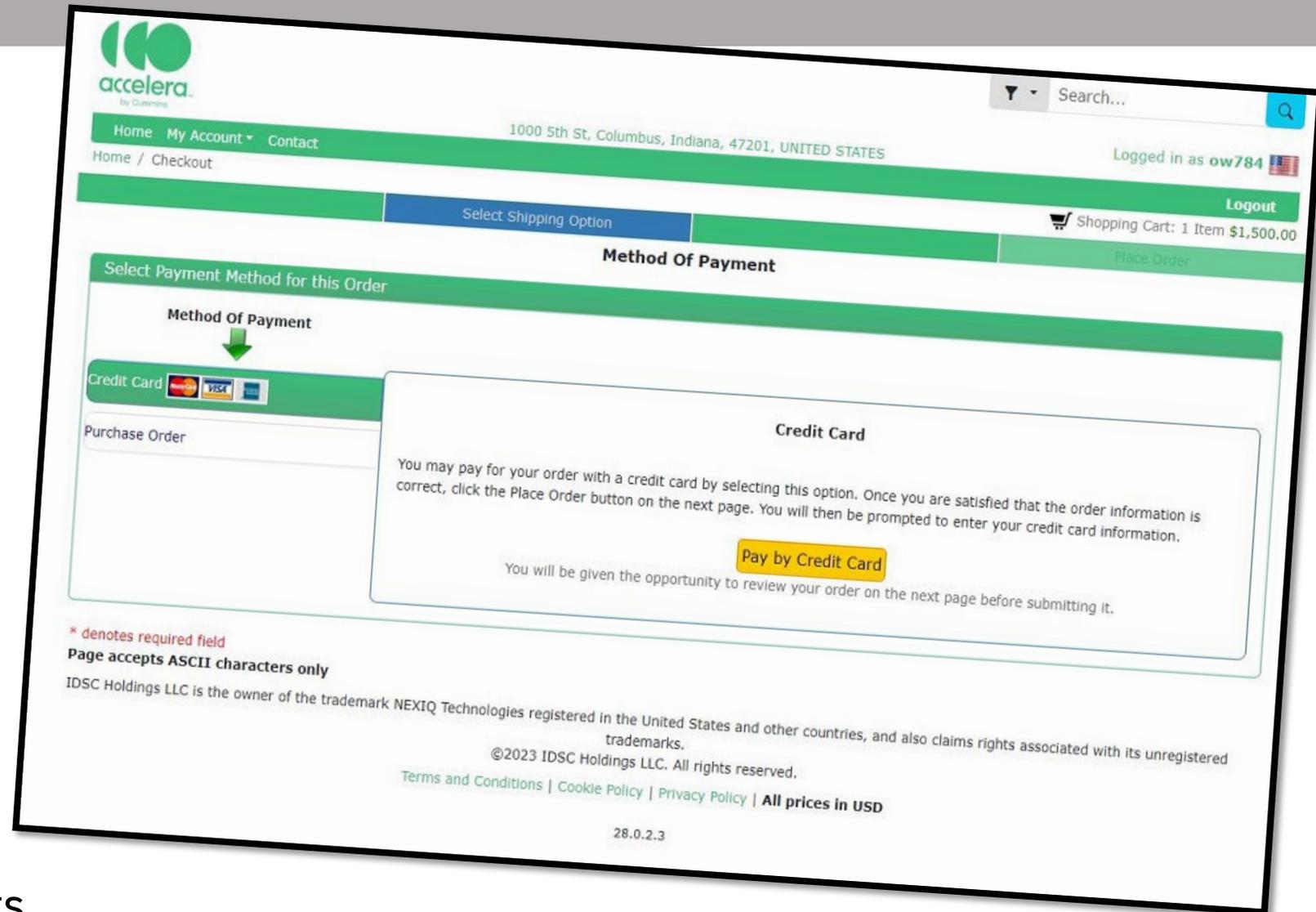
Add Address

# Accelera Diagnostics

## CREDIT CARD PAYMENT

For credit card payment, click on:

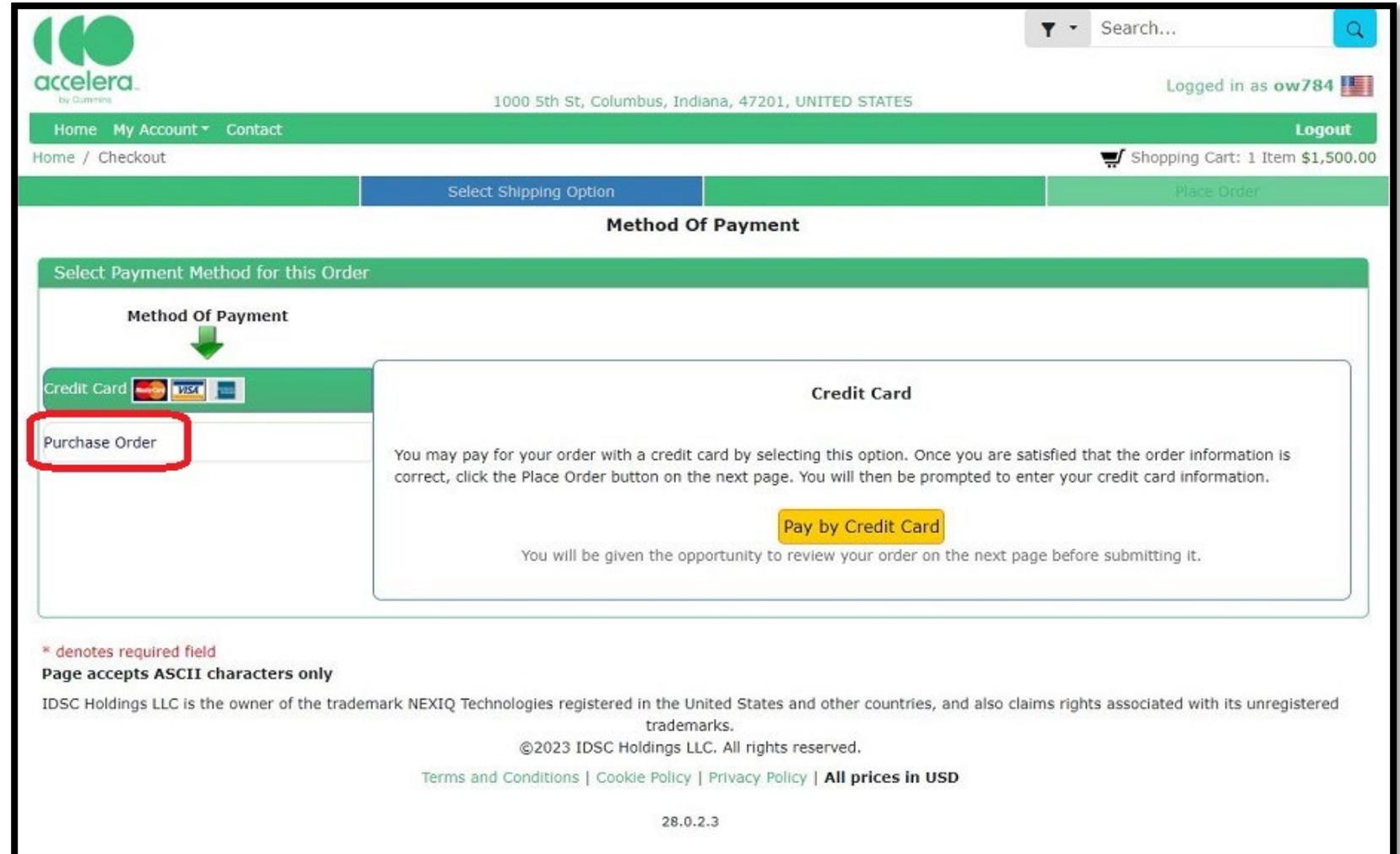
- “Pay by Credit Card”
- Follow the onscreen prompts



# Accelera Diagnostics

## PURCHASE ORDER PAYMENT

To pay by purchase order, click on the “Purchase Order” link.



The screenshot shows the Accelera website checkout process. At the top, there is a navigation bar with the Accelera logo, address (1000 5th St, Columbus, Indiana, 47201, UNITED STATES), and user information (Logged in as ow784). Below this is a secondary navigation bar with links for Home, My Account, and Contact, along with a Logout button. The main content area is titled "Method Of Payment" and contains a section for "Select Payment Method for this Order". This section has a sub-header "Method Of Payment" with a green arrow pointing down. There are two radio button options: "Credit Card" (with logos for Mastercard, Visa, and American Express) and "Purchase Order". The "Purchase Order" option is highlighted with a red rectangular box. To the right of these options is a detailed description for the "Credit Card" option, which includes a "Pay by Credit Card" button and a note that the user will be prompted to enter credit card information. At the bottom of the page, there is a footer with a disclaimer, copyright information (©2023 IDSC Holdings LLC), and links for Terms and Conditions, Cookie Policy, and Privacy Policy. The version number 28.0.2.3 is also present.

accelera  
by Cummins

1000 5th St, Columbus, Indiana, 47201, UNITED STATES

Logged in as ow784

Home My Account Contact Logout

Home / Checkout Shopping Cart: 1 Item \$1,500.00

Select Shipping Option Place Order

Method Of Payment

Select Payment Method for this Order

Method Of Payment

Credit Card

Purchase Order

Credit Card

You may pay for your order with a credit card by selecting this option. Once you are satisfied that the order information is correct, click the Place Order button on the next page. You will then be prompted to enter your credit card information.

Pay by Credit Card

You will be given the opportunity to review your order on the next page before submitting it.

\* denotes required field

Page accepts ASCII characters only

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28.0.2.3



# Accelerera Diagnostics

## PURCHASE ORDER PAYMENT

Follow the instructions on screen and click on **PAY BY PURCHASE ORDER** to continue.

The screenshot shows the Accelerera website checkout process. At the top, there is a search bar and a navigation menu with links for Home, My Account, and Contact. The user is logged in as 'ow784'. The shopping cart contains 1 item for \$1,500.00. The current step is 'Method Of Payment', with a 'Select Shipping Option' button and a 'Place Order' button. The 'Select Payment Method for this Order' section has a green arrow pointing to the 'Purchase Order' option. The 'Purchase Order' section contains the following text:

**Purchase Order**

An invoice will be sent when your order is shipped. You will be required to provide a purchase order document at time of order and to pay the invoice within 30 days of the date of shipment.

Snap-on requires the following information on all purchase orders with credit terms:

1. Our company name: Snap-on Business Solutions.
2. Bill to Address: Where should we send the invoice?
3. Ship to Address, if different from the Bill to Address.
4. Order contents including Product Numbers, Names, Quantities, Prices and Freight - details of which are shown below.
5. Applicable tax, which will be shown as an estimation on the next page.
6. Customer signature and date.

Failure to provide all required information may delay your order!

Notes:

- Any subscriptions associated with this order will have their Product Keys released AFTER we have validated the Purchase Order. You will be notified by email when this occurs.
- ALL PRICING IS IN USD

| Product Number | Product Name                                | Quantity | Subtotal   |
|----------------|---|----------|------------|
| 6511298        | Accelerera™ Diagnostics 1 Year Subscription | 1        | \$1,500.00 |

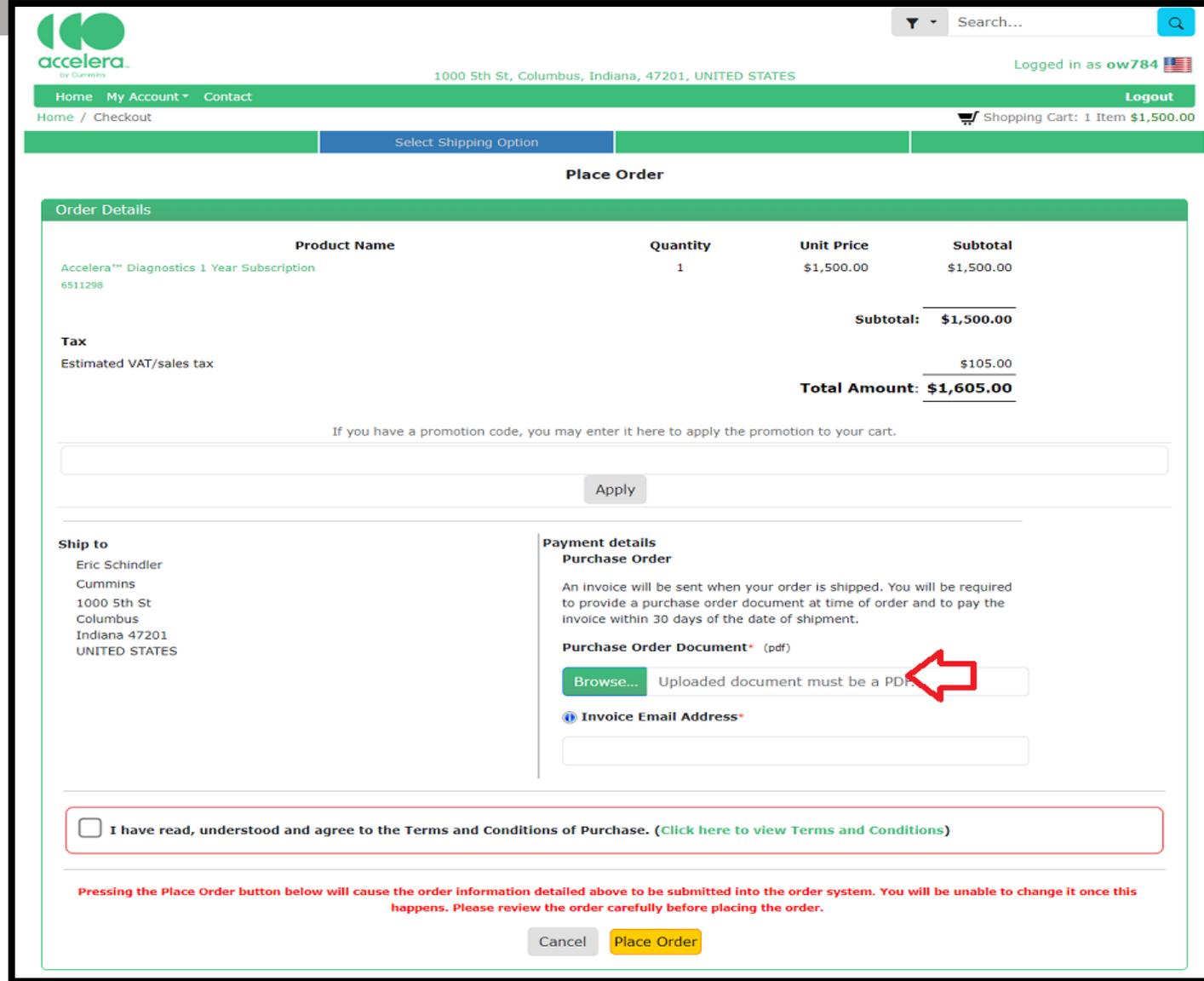
**Pay by Purchase Order**

You will be given the opportunity to review your order on the next page before submitting it.

# Accelera Diagnostics

## PURCHASE ORDER PAYMENT

- Attach the Purchase Order document
- Add your email address
- Check the box indicating that you have read, understood, and agree to the terms and conditions of the purchase
- Click the **PLACE ORDER** button



accelera.  
by Cummins

1000 5th St, Columbus, Indiana, 47201, UNITED STATES

Logged in as ow784

Home My Account Contact Logout

Home / Checkout Shopping Cart: 1 Item \$1,500.00

Select Shipping Option

### Place Order

#### Order Details

| Product Name   | Quantity | Unit Price | Subtotal   |
|--|----------|------------|------------|
| Accelera™ Diagnostics 1 Year Subscription<br>6511298 | 1        | \$1,500.00 | \$1,500.00 |
| Subtotal:  |          |            | \$1,500.00 |
| Tax  |          |            |            |
| Estimated VAT/sales tax                              |          |            | \$105.00   |
| Total Amount:  |          |            | \$1,605.00 |

If you have a promotion code, you may enter it here to apply the promotion to your cart.

Apply

#### Ship to

Eric Schindler  
Cummins  
1000 5th St  
Columbus  
Indiana 47201  
UNITED STATES

#### Payment details

##### Purchase Order

An invoice will be sent when your order is shipped. You will be required to provide a purchase order document at time of order and to pay the invoice within 30 days of the date of shipment.

**Purchase Order Document\*** (pdf)

Browse... Uploaded document must be a PDF.

**Invoice Email Address\***

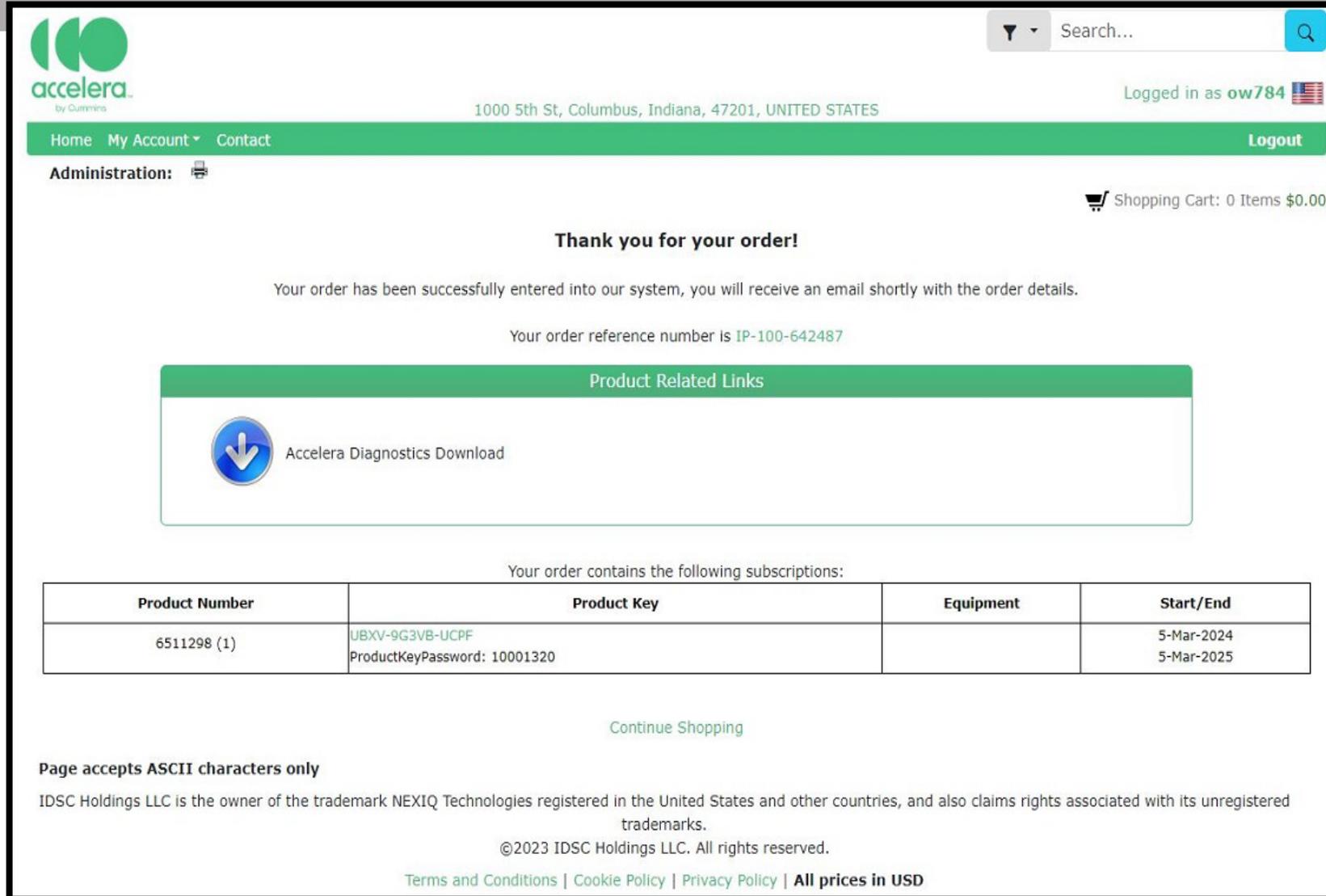
I have read, understood and agree to the Terms and Conditions of Purchase. ([Click here to view Terms and Conditions](#))

Pressing the Place Order button below will cause the order information detailed above to be submitted into the order system. You will be unable to change it once this happens. Please review the order carefully before placing the order.

Cancel Place Order

# Accelera Diagnostics

## COMPLETED PAYMENT



The screenshot shows the Accelera Diagnostics website's payment confirmation page. At the top, there is a search bar and a navigation menu with links for Home, My Account, and Contact. The user is logged in as 'ow784'. The page displays a 'Thank you for your order!' message, stating that the order has been successfully entered into the system and that an email with order details will be sent shortly. The order reference number is IP-100-642487. A 'Product Related Links' section contains a download icon and the text 'Accelera Diagnostics Download'. Below this, a table lists the subscriptions included in the order. At the bottom, there is a 'Continue Shopping' link and a footer with legal notices and copyright information.

1000 5th St, Columbus, Indiana, 47201, UNITED STATES

Logged in as ow784

Home My Account Contact Logout

Administration: Administration icon

Shopping Cart: 0 Items \$0.00

**Thank you for your order!**

Your order has been successfully entered into our system, you will receive an email shortly with the order details.

Your order reference number is IP-100-642487

**Product Related Links**

Accelera Diagnostics Download

Your order contains the following subscriptions:

| Product Number | Product Key                                     | Equipment | Start/End                |
|----------------|---|-----------|--------------------------|
| 6511298 (1)    | UBXV-9G3VB-UCPF<br>ProductKeyPassword: 10001320 |           | 5-Mar-2024<br>5-Mar-2025 |

[Continue Shopping](#)

Page accepts ASCII characters only

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Once the payment is verified, the product key and serial number are displayed on the screen.

*The information is also emailed to you.*

# Accelera Diagnostics

## ACTIVATE LICENSE

Once the Accelera product key is purchased, it will need to be registered and activated with NEXIQ Technologies.

Click on the SIGN UP button to create a new user profile. <https://registration.nexiq.com/>

The username and password created on the NEXIQ registration page will be used to logon to the Accelera software.



**NEXIQ** TECHNOLOGIES® Products FAQ Log In **Sign Up**

## USB-Link™ 3 | VEHICLE INTERFACE

**MAKE THE CONNECTION ANY WAY YOU LIKE. BLUETOOTH. WI-FI. USB.**

Built to support the latest protocols (CAN FD, DoIP), and with the compatibility for a wide range of OEM diagnostics software, this is our most advanced VCI to date.

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Rochester Hills, MI 48309

**Customer Support:**  
800.639.6774

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v1.1.40.45326

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# Accelerera Diagnostics

## ACTIVATE LICENSE

When you are completing the new user registration page for NEXIQ, the “org reference” is not used and should default to NO.

If you are a Cummins employee, use “Cummins” for company name.

### Company details

---

Have org reference (XX-XXXXX)?  Yes  No

Company name

Country



# Accelerera Diagnostics

## ACTIVATE LICENSE

Once the registration is completed, an email is sent to activate your user account.

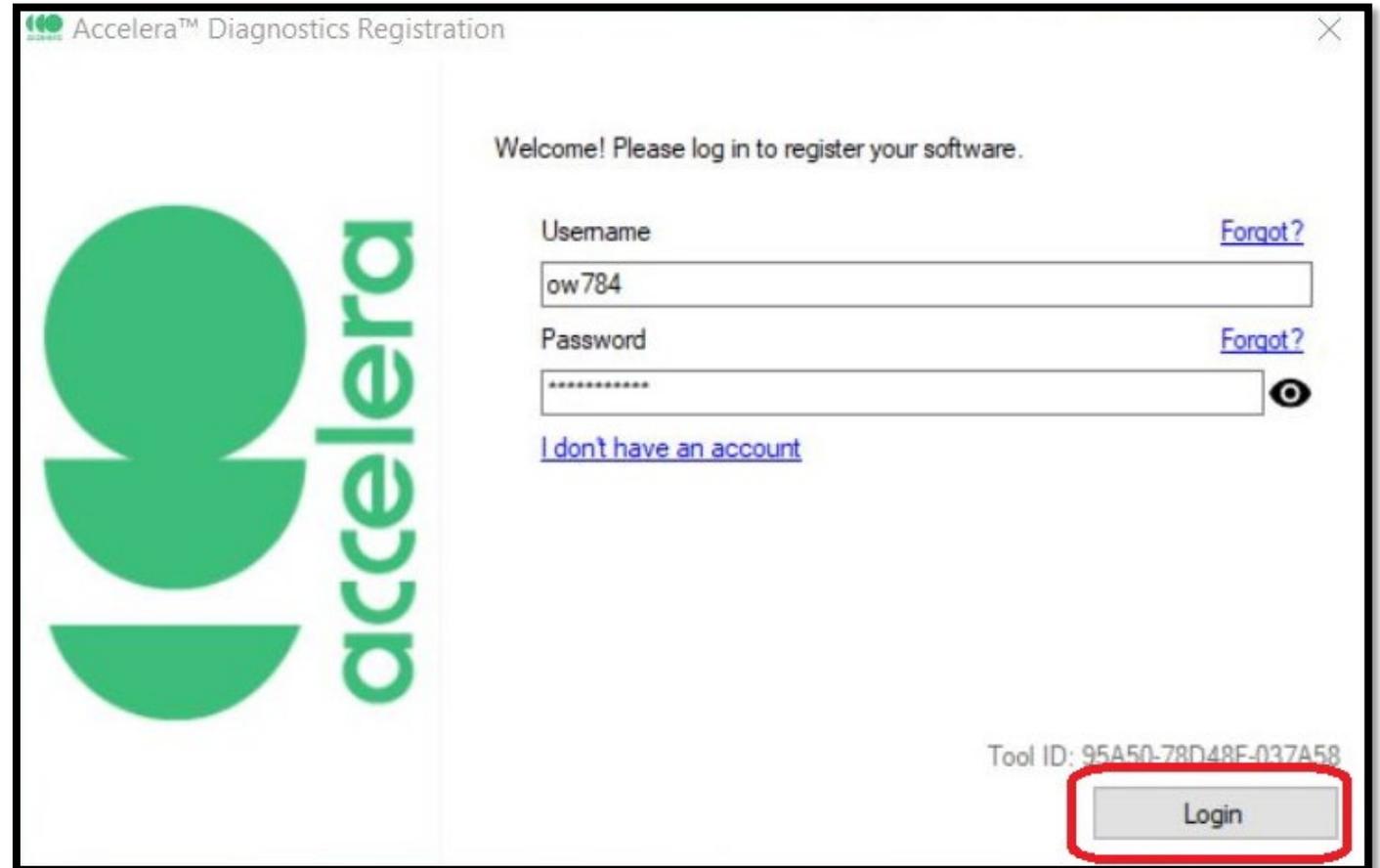
Click on the link to “activate your account”.

The screenshot shows an email from NEXIQ Technologies. At the top is the NEXIQ TECHNOLOGIES logo. Below it, the text reads "Hello Eric Schindler!" followed by "Thank you for creating a registration account with NEXIQ." A prominent blue button labeled "Activate Your Account" is centered. Below the button, a white box contains the heading "Issues or Questions?" and provides contact information: "Email: [customer.service@nexiq.com](mailto:customer.service@nexiq.com)" and "Toll Free: [\(800\) 639-6774](tel:(800)639-6774)". At the bottom of the email, the URL [universalregistration.nexiq.com](http://universalregistration.nexiq.com) and the copyright notice "Copyright © 2022 IDSC Holdings LLC. All Rights Reserved." are visible.

# Accelera Diagnostics

## ACTIVATE LICENSE

1. Once the registration is complete and your user profile is created, launch the Accelera diagnostics software.
2. Logon with the username and password created on the NEXIQ registration page.



The screenshot shows the 'Accelera™ Diagnostics Registration' window. On the left is the Accelera logo, consisting of three green circles stacked vertically and the word 'accelera' in green lowercase letters. The main content area has a white background with the text 'Welcome! Please log in to register your software.' Below this are two input fields: 'Username' with the value 'ow784' and 'Password' with masked characters. Both fields have a 'Forgot?' link to their right. Below the password field is a 'I don't have an account' link. At the bottom right, the 'Tool ID: 95A50-78D48E-037A58' is displayed, and a 'Login' button is highlighted with a red rectangular border.

Accelera™ Diagnostics Registration

Welcome! Please log in to register your software.

Username [Forgot?](#)  
ow784

Password [Forgot?](#)  
\*\*\*\*\*

[I don't have an account](#)

Tool ID: 95A50-78D48E-037A58

Login



# Accelerera Diagnostics

## ACTIVATE YOUR LICENSE

After logging in, you will be prompted to enter the product key and serial number (it was provided on the completed order page and emailed to you).

Fill in the information and click on REGISTER.

Accelerera™ Diagnostics Registration

Please enter your Product Key:

-  -

Product Serial Number:

Give your computer a name:

Tool ID: 36F8D-6AFD3C-2A8955

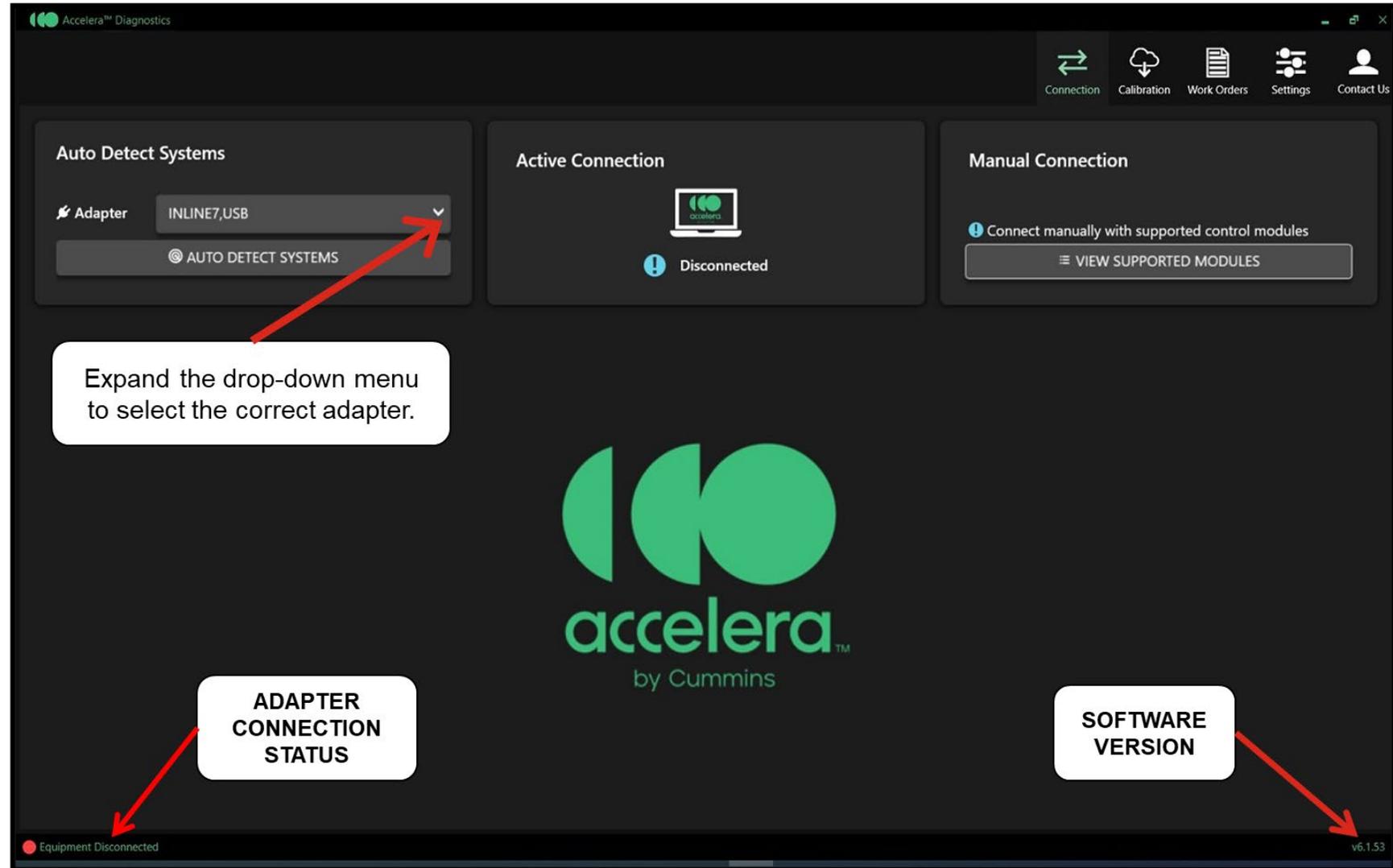
# Accelerera Diagnostics

## HOME PAGE

From the Home page, click the drop-down menu and select the adapter you are using.

Only adapters that have the driver file installed will show up in this list.

- **bottom left corner** shows Adapter connection status.
- **bottom right corner** shows the software version.



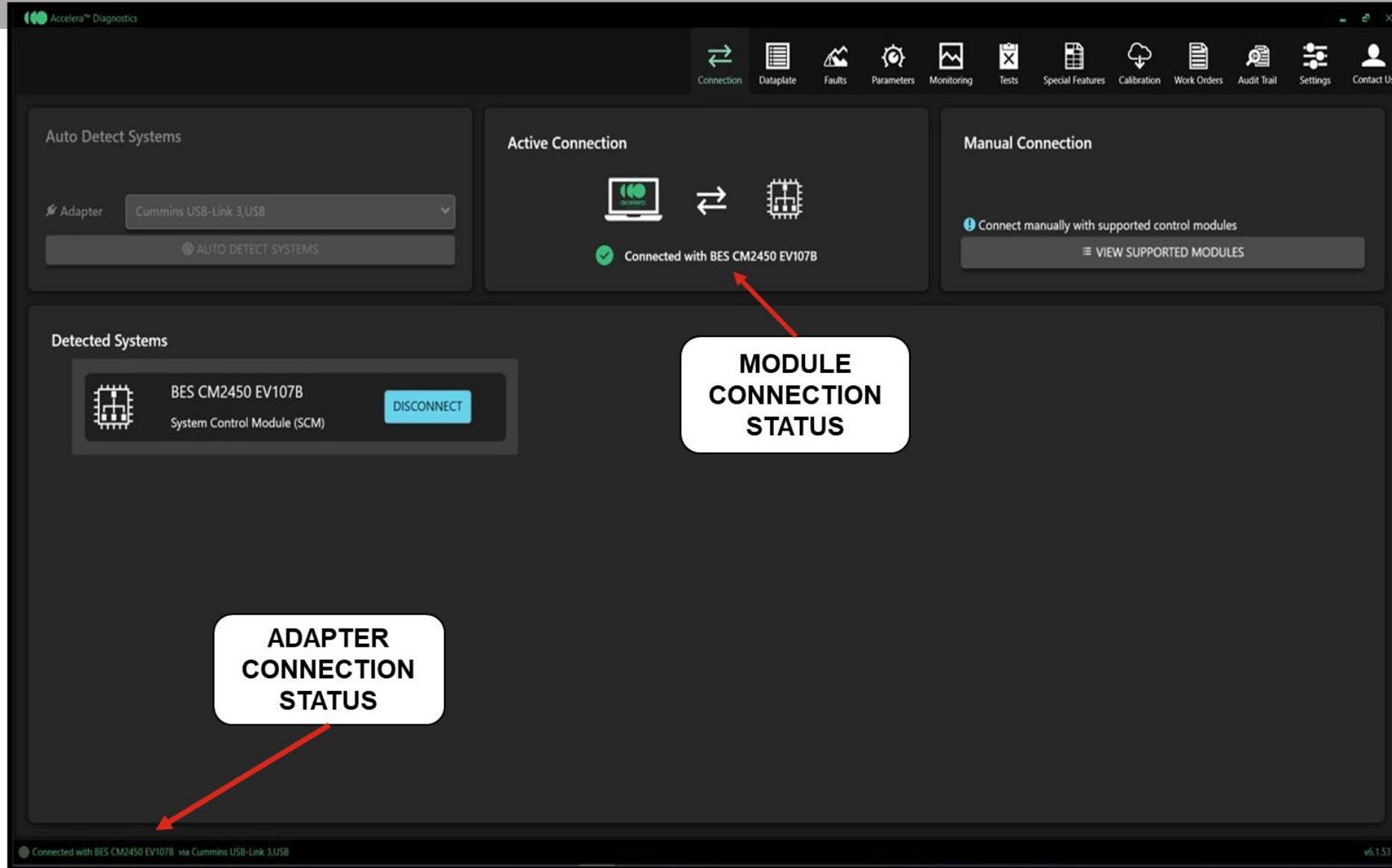
The screenshot shows the Accelerera Diagnostics Home Page interface. At the top right, there are navigation icons for Connection, Calibration, Work Orders, Settings, and Contact Us. The main content area is divided into three panels: 'Auto Detect Systems' with a drop-down menu for 'Adapter' (currently showing 'INLINE7,USB') and a button for 'AUTO DETECT SYSTEMS'; 'Active Connection' showing a disconnected status; and 'Manual Connection' with a button for 'VIEW SUPPORTED MODULES'. A red arrow points to the drop-down menu in the 'Auto Detect Systems' panel, with a callout box stating: 'Expand the drop-down menu to select the correct adapter.' At the bottom left, a red arrow points to the 'Equipment Disconnected' status indicator, with a callout box labeled 'ADAPTER CONNECTION STATUS'. At the bottom right, a red arrow points to the version number 'v6.1.53', with a callout box labeled 'SOFTWARE VERSION'. The Accelerera by Cummins logo is centered at the bottom of the interface.

# Accelerera Diagnostics

## CONNECTION SCREEN/TAB | AUTO DETECT

Using the **AUTO DETECT** option, Accelerera searches all compatible systems and modules.

This can take up to 2 minutes.



The screenshot displays the Accelerera Diagnostics software interface. The top navigation bar includes icons for Connection, Dataplate, Faults, Parameters, Monitoring, Tests, Special Features, Calibration, Work Orders, Audit Trail, Settings, and Contact Us. The main interface is divided into three primary sections: 'Auto Detect Systems', 'Active Connection', and 'Manual Connection'. The 'Auto Detect Systems' section shows the selected adapter as 'Cummins USB-Link 3,USB' and a button for 'AUTO DETECT SYSTEMS'. The 'Active Connection' section displays a green checkmark and the text 'Connected with BES CM2450 EV107B'. The 'Manual Connection' section provides instructions to connect manually with supported control modules and a button for 'VIEW SUPPORTED MODULES'. Below these sections is the 'Detected Systems' area, which lists the detected module 'BES CM2450 EV107B System Control Module (SCM)' with a 'DISCONNECT' button. Two white callout boxes with red arrows point to the 'Active Connection' status and the 'Detected Systems' list. The bottom status bar indicates 'Connected with BES CM2450 EV107B via Cummins USB-Link 3,USB' and the version 'v6.1.53'.

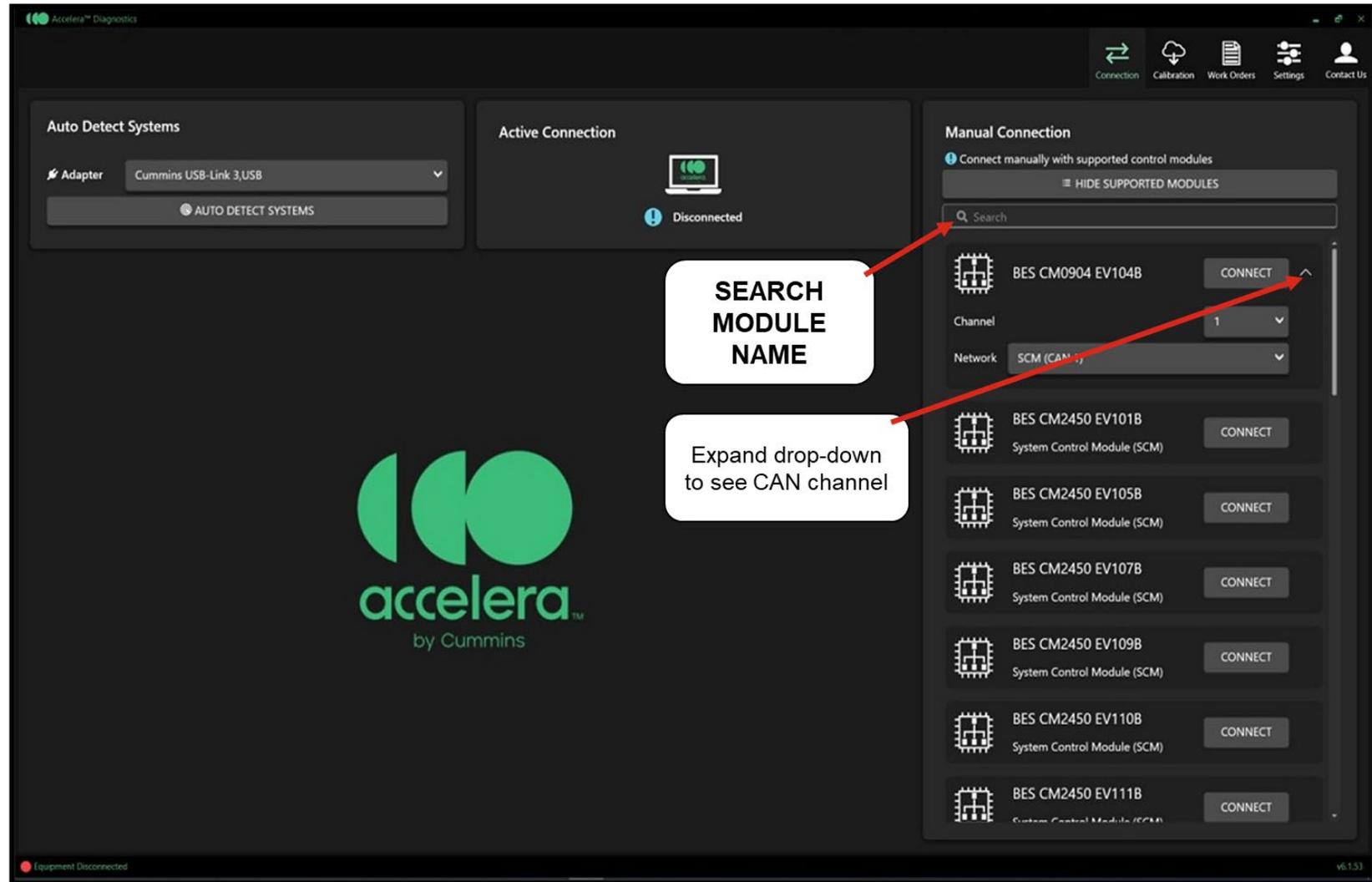
**MODULE CONNECTION STATUS**

**ADAPTER CONNECTION STATUS**

Using the **MANUAL CONNECTION** option, select the correct module and click **CONNECT**.

Utilize the search bar to find the desired module

On Legacy products, use the drop-down arrow to expand the menu and select the appropriate CAN channel.



SEARCH MODULE NAME

Expand drop-down to see CAN channel

Equipment Disconnected

v6.1.53



# Accelerera Diagnostics

## DATAPLATE SCREEN/TAB

Once successfully connected, the dataplate screen automatically opens. The SCM calibration version and serial number are displayed on this page.

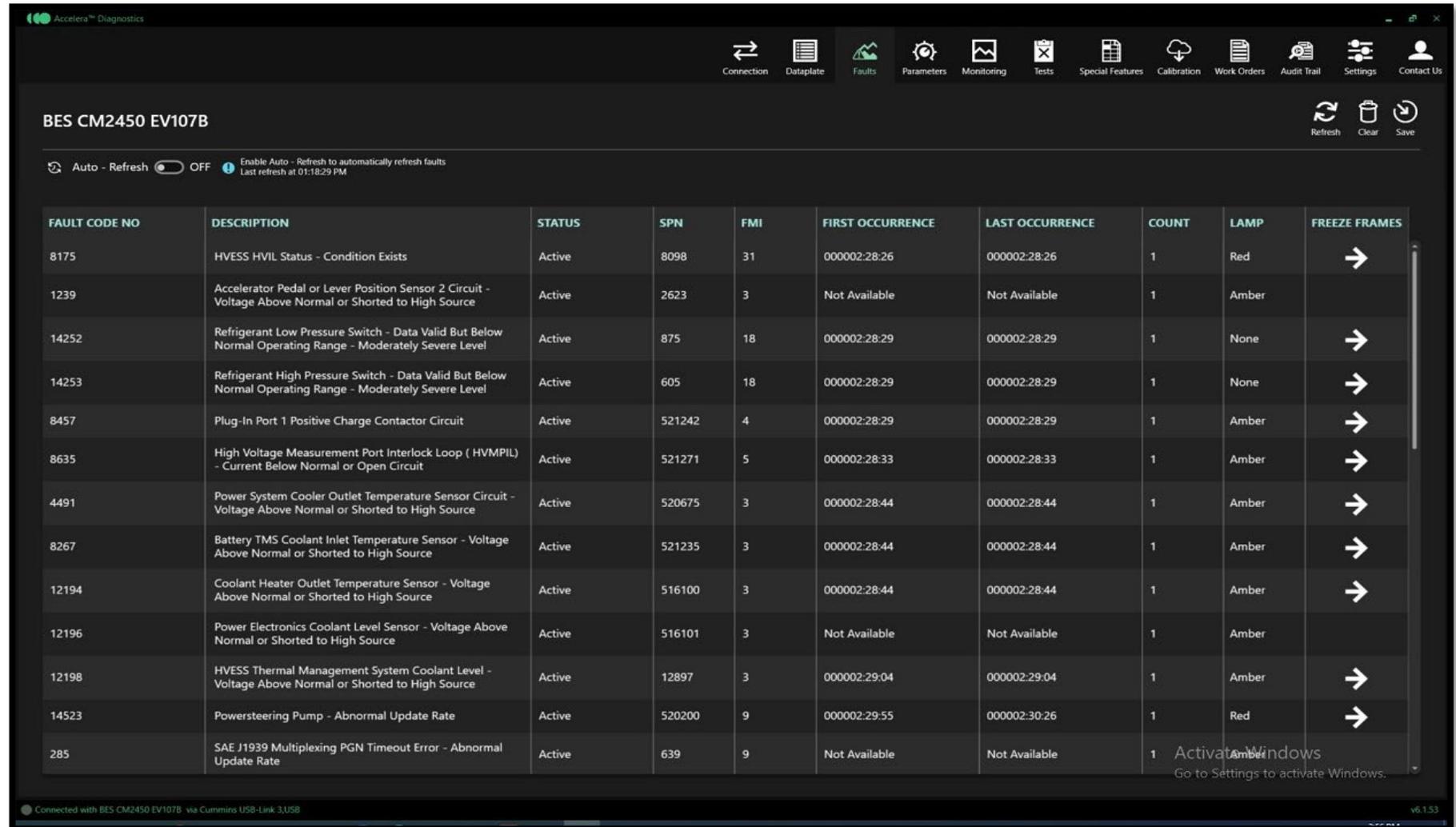
The screenshot shows the Accelerera Diagnostics interface. At the top, there is a navigation bar with icons for Connection, Dataplate (selected), Faults, Parameters, Monitoring, Tests, Special Features, Calibration, Work Orders, Audit Trail, Settings, and Contact Us. Below the navigation bar, the device ID "BES CM2450 EV107B" is displayed. To the right of the device ID are "Refresh" and "Save" buttons. The main content area contains a table with the following data:

| DESCRIPTION                 | VALUE             |
|-----------------------------|-------------------|
| ECM Name                    | CM2450A           |
| ECM Part Number             | 5572391           |
| Calibration Software Phase  | 456267278         |
| Calibration Time/Date Stamp | 1264255328        |
| System Serial Number        | 0                 |
| Engine Model                | pP7u22b1260000000 |
| ECM Serial Number           | 3205798           |
| ECM Code                    | OA10005.10        |

# Accelerera Diagnostics

## FAULTS SCREEN/TAB

Use the Faults screen to read fault codes, fault description, status and lamp color.



BES CM2450 EV107B

Auto - Refresh  OFF Enable Auto - Refresh to automatically refresh faults. Last refresh at 01:18:23 PM

| FAULT CODE NO | DESCRIPTION  | STATUS | SPN    | FMI | FIRST OCCURRENCE | LAST OCCURRENCE | COUNT | LAMP  | FREEZE FRAMES |
|---------------|--|--------|--------|-----|------------------|-----------------|-------|-------|---------------|
| 8175          | HVESS HVIL Status - Condition Exists   | Active | 8098   | 31  | 000002:28:26     | 000002:28:26    | 1     | Red   | ➔             |
| 1239          | Accelerator Pedal or Lever Position Sensor 2 Circuit - Voltage Above Normal or Shorted to High Source    | Active | 2623   | 3   | Not Available    | Not Available   | 1     | Amber |               |
| 14252         | Refrigerant Low Pressure Switch - Data Valid But Below Normal Operating Range - Moderately Severe Level  | Active | 875    | 18  | 000002:28:29     | 000002:28:29    | 1     | None  | ➔             |
| 14253         | Refrigerant High Pressure Switch - Data Valid But Below Normal Operating Range - Moderately Severe Level | Active | 605    | 18  | 000002:28:29     | 000002:28:29    | 1     | None  | ➔             |
| 8457          | Plug-In Port 1 Positive Charge Contactor Circuit   | Active | 521242 | 4   | 000002:28:29     | 000002:28:29    | 1     | Amber | ➔             |
| 8635          | High Voltage Measurement Port Interlock Loop ( HVMPIL) - Current Below Normal or Open Circuit            | Active | 521271 | 5   | 000002:28:33     | 000002:28:33    | 1     | Amber | ➔             |
| 4491          | Power System Cooler Outlet Temperature Sensor Circuit - Voltage Above Normal or Shorted to High Source   | Active | 520675 | 3   | 000002:28:44     | 000002:28:44    | 1     | Amber | ➔             |
| 8267          | Battery TMS Coolant Inlet Temperature Sensor - Voltage Above Normal or Shorted to High Source            | Active | 521235 | 3   | 000002:28:44     | 000002:28:44    | 1     | Amber | ➔             |
| 12194         | Coolant Heater Outlet Temperature Sensor - Voltage Above Normal or Shorted to High Source                | Active | 516100 | 3   | 000002:28:44     | 000002:28:44    | 1     | Amber | ➔             |
| 12196         | Power Electronics Coolant Level Sensor - Voltage Above Normal or Shorted to High Source                  | Active | 516101 | 3   | Not Available    | Not Available   | 1     | Amber |               |
| 12198         | HVESS Thermal Management System Coolant Level - Voltage Above Normal or Shorted to High Source           | Active | 12897  | 3   | 000002:29:04     | 000002:29:04    | 1     | Amber | ➔             |
| 14523         | Powersteering Pump - Abnormal Update Rate  | Active | 520200 | 9   | 000002:29:55     | 000002:30:26    | 1     | Red   | ➔             |
| 285           | SAE J1939 Multiplexing PGN Timeout Error - Abnormal Update Rate  | Active | 639    | 9   | Not Available    | Not Available   | 1     | Amber |               |

Connected with BES CM2450 EV107B via Cummins USB-Link 3.USB v6.1.53

# Accelerera Diagnostics

## FREEZE FRAME DATA

To view more detailed information about a specific fault, click on the arrow in the freeze frame box.

The screenshot displays the Accelerera Diagnostics software interface for a BES CM2450 EV107B. The main window shows a list of faults, with fault 14252 highlighted. A 'Faults Data' window is open, providing detailed information for this specific fault.

**FAULT CODE NO** | **DESCRIPTION**

|       |  |
|-------|--|
| 8175  | HVESS HVIL Status - Condition Exists   |
| 1239  | Accelerator Pedal or Lever Position Sensor Voltage Above Normal or Shorted to High                 |
| 14252 | Refrigerant Low Pressure Switch - Data Valid But Below Normal Operating Range - Moderately Severe  |
| 14253 | Refrigerant High Pressure Switch - Data Valid But Below Normal Operating Range - Moderately Severe |
| 8457  | Plug-In Port 1 Positive Charge Contactor Current Above Normal or Shorted to High                   |
| 8635  | High Voltage Measurement Port Interlock - Current Below Normal or Open Circuit                     |
| 4491  | Power System Cooler Outlet Temperature Voltage Above Normal or Shorted to High                     |
| 8267  | Battery TMS Coolant Inlet Temperature Sensor Voltage Above Normal or Shorted to High Source        |
| 12194 | Coolant Heater Outlet Temperature Sensor Voltage Above Normal or Shorted to High Source            |
| 12196 | Power Electronics Coolant Level Sensor - Voltage Above Normal or Shorted to High Source            |
| 12198 | HVESS Thermal Management System Coolant Voltage Above Normal or Shorted to High                    |
| 14523 | Powersteering Pump - Abnormal Update Rate  |
| 285   | SAE J1939 Multiplexing PGN Timeout Error - Abnormal Update Rate                                    |

**Faults Data**

14252 Refrigerant Low Pressure Switch - Data Valid But Below Normal Operating Range - Moderately Severe Level

| DESCRIPTION                                 | FIRST OCCURRENCE | LAST OCCURRENCE | UNITS    |
|---|------------------|-----------------|----------|
| Battery Voltage                             | 220.0            | 220.0           | V        |
| Percent Accelerator Pedal or Lever          | 0                | 0               | %        |
| ECM Time (Key On Time)                      | 000002:28:29     | 000002:28:29    | HH:MM:SS |
| Vehicle Speed                               | 0                | 0               | km/hr    |
| Brake Pedal Position Switch                 | On               | On              |          |
| Total Run Time                              | 000000:00:00     | 000000:00:00    | HH:MM:SS |
| Total Charge Time                           | 000000:00:00     | 000000:00:00    | HH:MM:SS |
| Parking Brake Switch State                  | Off              | Off             |          |
| Hybrid Operating State                      | Undefined        | Undefined       |          |
| Hybrid Percent Load                         | 0                | 0               | %        |
| High Voltage Battery Actual Contactor State | Open             | Open            |          |

**Freeze Frame Data**

| OCCURRENCE  | COUNT | LAMP  | FREEZE FRAMES |
|-------------|-------|-------|---------------|
| 28:26       | 1     | Red   | ➔             |
| Unavailable | 1     | Amber | ➔             |
| 28:29       | 1     | None  | ➔             |
| 28:29       | 1     | None  | ➔             |
| 28:29       | 1     | Amber | ➔             |
| 28:33       | 1     | Amber | ➔             |
| 28:44       | 1     | Amber | ➔             |
| 28:44       | 1     | Amber | ➔             |
| 28:44       | 1     | Amber | ➔             |
| Unavailable | 1     | Amber | ➔             |
| 29:04       | 1     | Amber | ➔             |
| 29:04       | 1     | Red   | ➔             |

Connected with BES CM2450 EV107B via Cummins USB-Link 3.0/USB

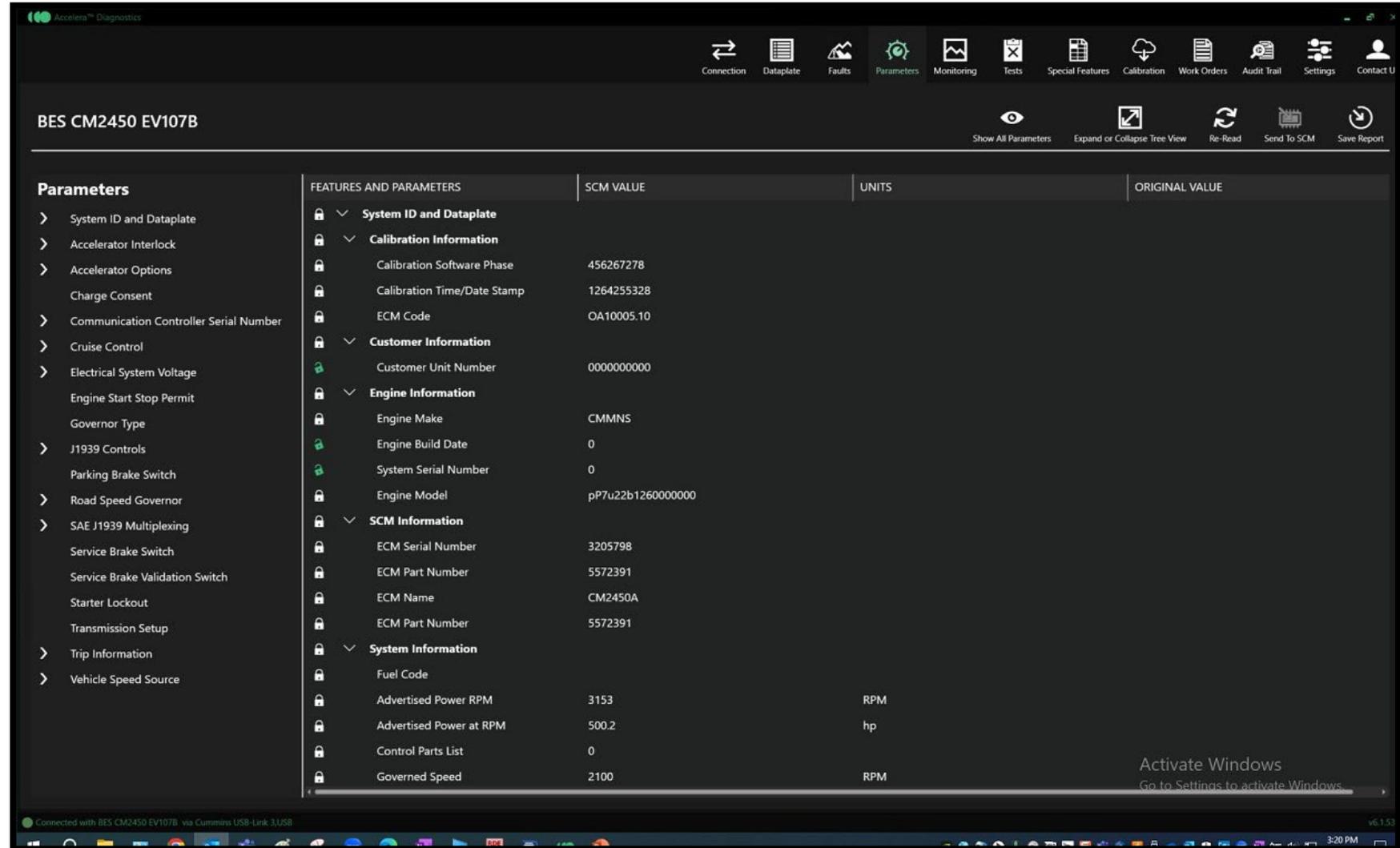
# Accelerera Diagnostics

## PARAMETERS SCREEN/TAB

Depending on the module type and calibration revision, some parameters are editable. The green unlocked icon indicates the parameter is editable.

To edit a parameter, double click on the field. Some parameters are open text fields, some are selectable drop-downs.

Click on the “Send to SCM” icon to save and write the parameter changes to the SCM/module.



The screenshot displays the Accelerera Diagnostics interface for a BES CM2450 EV107B module. The top navigation bar includes icons for Connection, Dataplate, Faults, Parameters (active), Monitoring, Tests, Special Features, Calibration, Work Orders, Audit Trail, Settings, and Contact Us. Below the navigation bar, the device name 'BES CM2450 EV107B' is shown. The main area is divided into a left sidebar with a tree view of parameters and a central table of features and parameters.

| Parameters                               | FEATURES AND PARAMETERS     | SCM VALUE         | UNITS | ORIGINAL VALUE |
|--|-----------------------------|-------------------|-------|----------------|
| > System ID and Dataplate                | System ID and Dataplate     |                   |       |                |
| > Accelerator Interlock                  | Calibration Information     |                   |       |                |
| > Accelerator Options                    | Calibration Software Phase  | 456267278         |       |                |
| Charge Consent                           | Calibration Time/Date Stamp | 1264255328        |       |                |
| > Communication Controller Serial Number | ECM Code                    | OA10005.10        |       |                |
| > Cruise Control                         | Customer Information        |                   |       |                |
| > Electrical System Voltage              | Customer Unit Number        | 0000000000        |       |                |
| Engine Start Stop Permit                 | Engine Information          |                   |       |                |
| Governor Type                            | Engine Make                 | CMMNS             |       |                |
| > J1939 Controls                         | Engine Build Date           | 0                 |       |                |
| Parking Brake Switch                     | System Serial Number        | 0                 |       |                |
| > Road Speed Governor                    | Engine Model                | pP7u22b1260000000 |       |                |
| > SAE J1939 Multiplexing                 | SCM Information             |                   |       |                |
| Service Brake Switch                     | ECM Serial Number           | 3205798           |       |                |
| Service Brake Validation Switch          | ECM Part Number             | 5572391           |       |                |
| Starter Lockout                          | ECM Name                    | CM2450A           |       |                |
| Transmission Setup                       | ECM Part Number             | 5572391           |       |                |
| > Trip Information                       | System Information          |                   |       |                |
| > Vehicle Speed Source                   | Fuel Code                   |                   |       |                |
|  | Advertised Power RPM        | 3153              | RPM   |                |
|  | Advertised Power at RPM     | 500.2             | hp    |                |
|  | Control Parts List          | 0                 |       |                |
|  | Governed Speed              | 2100              | RPM   |                |

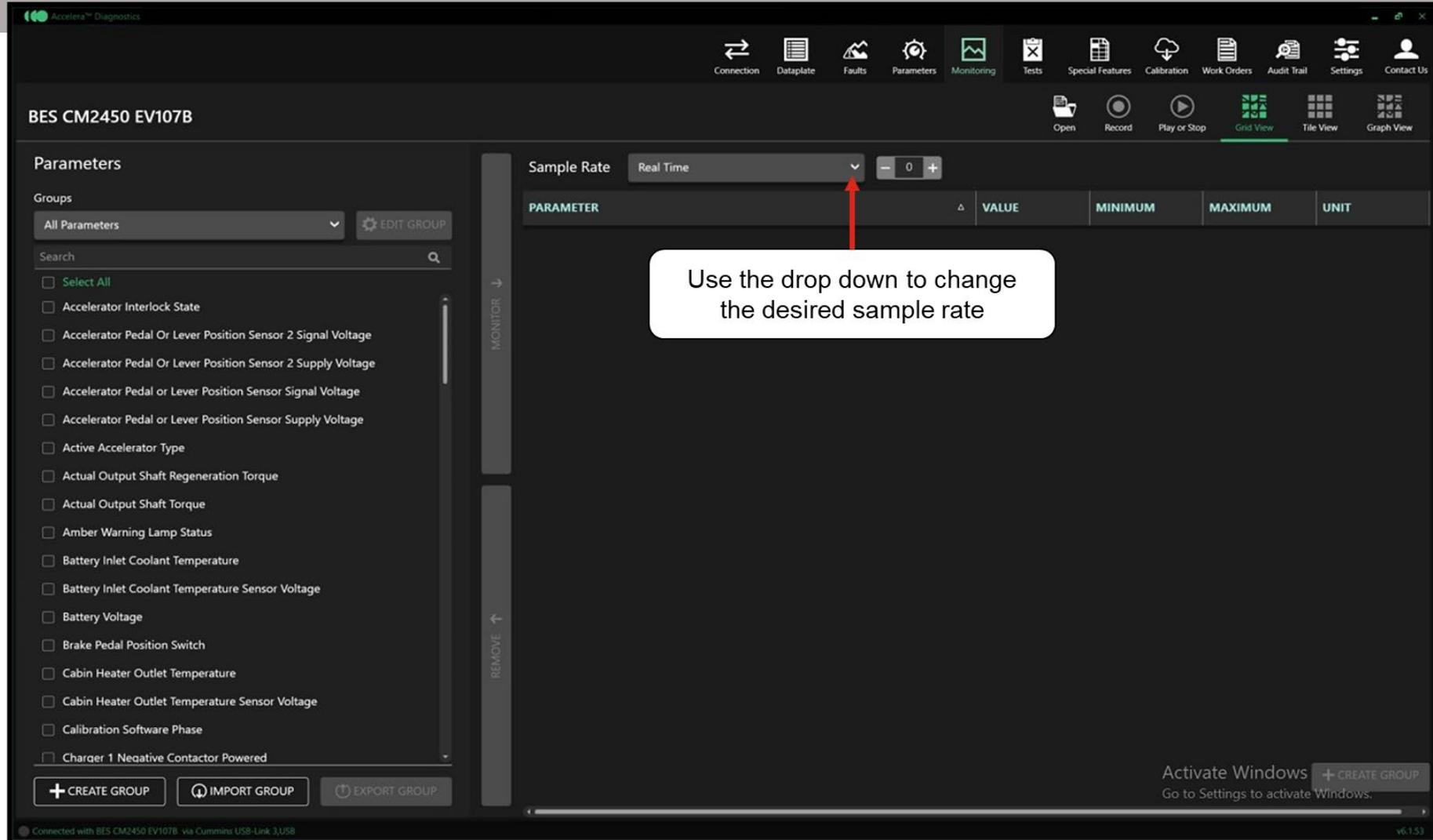
The bottom of the screen shows a Windows taskbar with the system clock at 3:20 PM and the version number v6.1.53. A watermark for 'Activate Windows' is visible in the bottom right corner.

# Accelerera Diagnostics

## MONITORING SCREEN/TAB

The Monitoring tab allows different data streams to be monitored and logged while the vehicle is in operation.

Select the inputs to be monitored and move them from left to right. Use the navigation buttons at the top right for custom configuration.



Accelerera™ Diagnostics

BES CM2450 EV107B

Parameters

Groups

All Parameters EDIT GROUP

Search

- Select All
- Accelerator Interlock State
- Accelerator Pedal Or Lever Position Sensor 2 Signal Voltage
- Accelerator Pedal Or Lever Position Sensor 2 Supply Voltage
- Accelerator Pedal or Lever Position Sensor Signal Voltage
- Accelerator Pedal or Lever Position Sensor Supply Voltage
- Active Accelerator Type
- Actual Output Shaft Regeneration Torque
- Actual Output Shaft Torque
- Amber Warning Lamp Status
- Battery Inlet Coolant Temperature
- Battery Inlet Coolant Temperature Sensor Voltage
- Battery Voltage
- Brake Pedal Position Switch
- Cabin Heater Outlet Temperature
- Cabin Heater Outlet Temperature Sensor Voltage
- Calibration Software Phase
- Charger 1 Neagative Contactor Powered

+ CREATE GROUP IMPORT GROUP EXPORT GROUP

MONITOR ↓

↑ REMOVE

Sample Rate: Real Time - 0 +

| PARAMETER | VALUE | MINIMUM | MAXIMUM | UNIT |
|-----------|-------|---------|---------|------|
|-----------|-------|---------|---------|------|

Use the drop down to change the desired sample rate

Activate Windows + CREATE GROUP  
Go to Settings to activate Windows.

Connected with BES CM2450 EV107B via Cummins USB-Link 3,USB v6.1.53

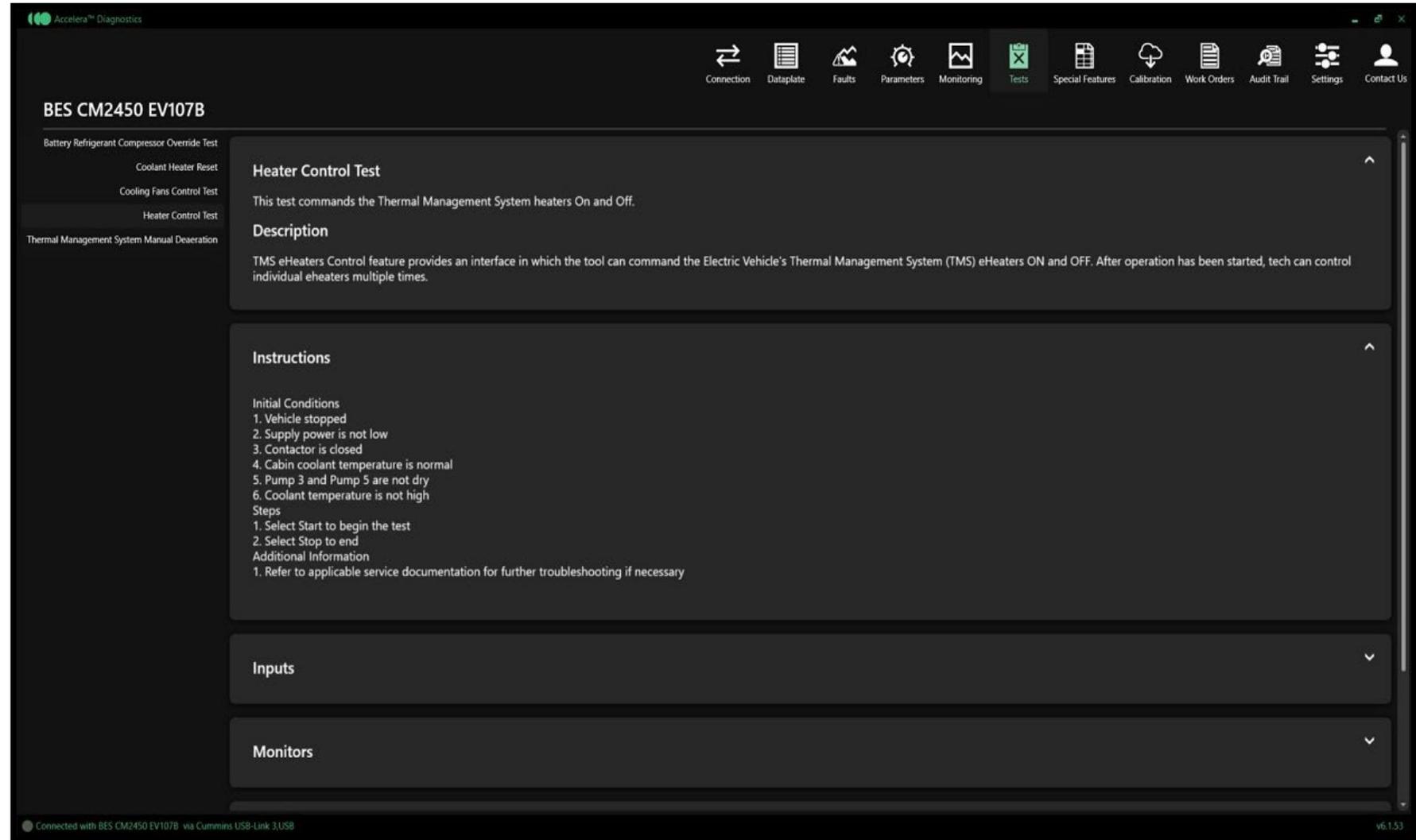
# Accelerera Diagnostics

## TESTS SCREEN/TAB

Use the Tests tab to perform system tests.

The list of Tests will vary depending on the module type and calibration version.

Select the desired test and follow the prompts or instructions on the screen.



The screenshot displays the Accelerera Diagnostics interface for a BES CM2450 EV107B module. The top navigation bar includes icons for Connection, Dataplate, Faults, Parameters, Monitoring, Tests (highlighted), Special Features, Calibration, Work Orders, Audit Trail, Settings, and Contact Us. The left sidebar lists various tests: Battery Refrigerant Compressor Override Test, Coolant Heater Reset, Cooling Fans Control Test, Heater Control Test (selected), and Thermal Management System Manual Deaeration. The main content area shows the details for the Heater Control Test, including a description, instructions (Initial Conditions and Steps), Inputs, and Monitors. The status bar at the bottom indicates the device is connected via Cummins USB-Link 3, USB, and the software version is v6.1.53.

Accelerera™ Diagnostics

Connection Dataplate Faults Parameters Monitoring Tests Special Features Calibration Work Orders Audit Trail Settings Contact Us

BES CM2450 EV107B

Battery Refrigerant Compressor Override Test  
Coolant Heater Reset  
Cooling Fans Control Test  
Heater Control Test  
Thermal Management System Manual Deaeration

### Heater Control Test

This test commands the Thermal Management System heaters On and Off.

#### Description

TMS eHeaters Control feature provides an interface in which the tool can command the Electric Vehicle's Thermal Management System (TMS) eHeaters ON and OFF. After operation has been started, tech can control individual eheaters multiple times.

#### Instructions

Initial Conditions

1. Vehicle stopped
2. Supply power is not low
3. Contactor is closed
4. Cabin coolant temperature is normal
5. Pump 3 and Pump 5 are not dry
6. Coolant temperature is not high

Steps

1. Select Start to begin the test
2. Select Stop to end

Additional Information

1. Refer to applicable service documentation for further troubleshooting if necessary

#### Inputs

#### Monitors

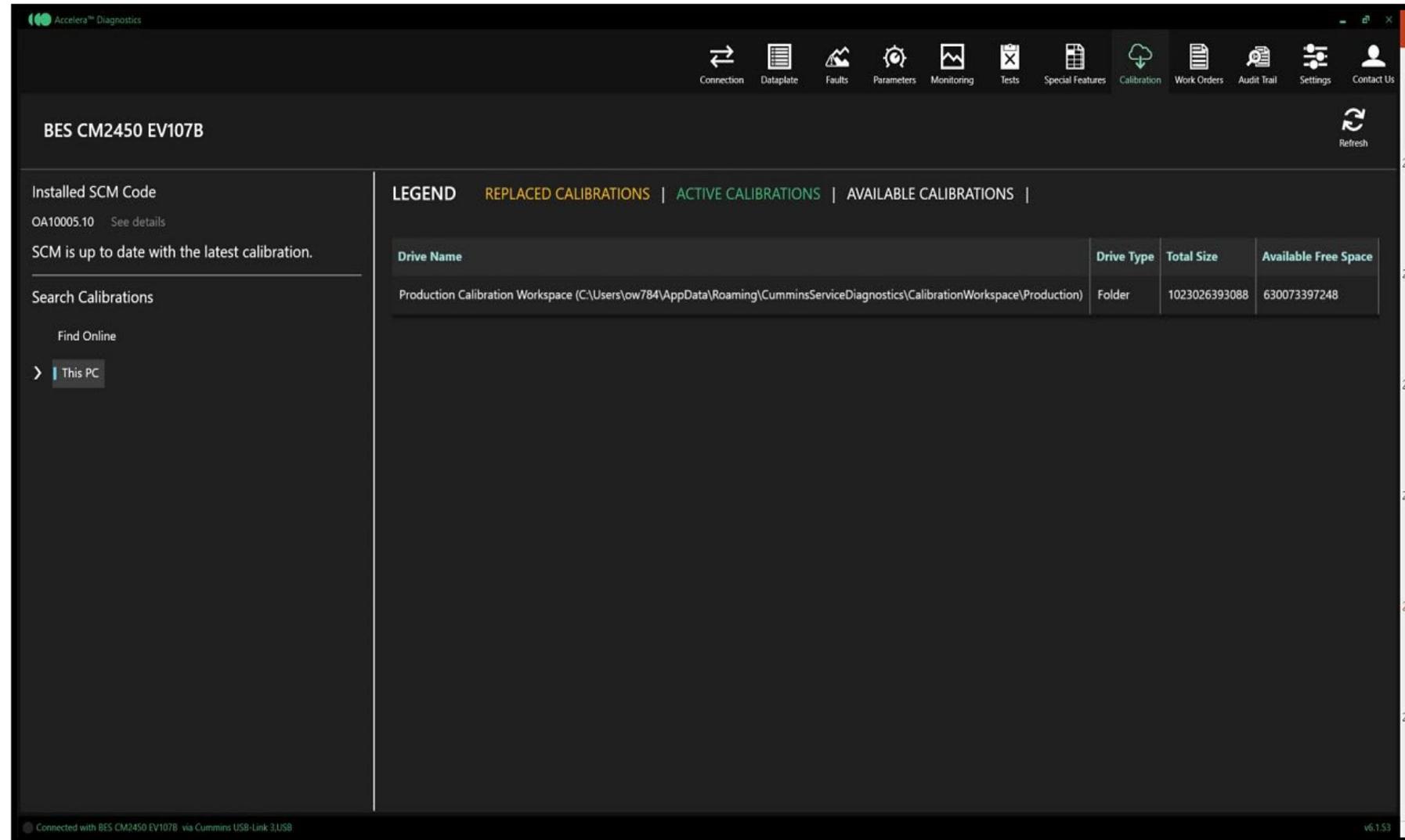
Connected with BES CM2450 EV107B via Cummins USB-Link 3,USB v6.1.53

# Accelerera Diagnostics

## CALIBRATION SCREEN/TAB

Use the calibration tab to check if the module is on the most current calibration revision.

Also use this page to search for available calibrations from the web or already stored on your local computer.



Accelerera™ Diagnostics

Connection Dataplate Faults Parameters Monitoring Tests Special Features Calibration Work Orders Audit Trail Settings Contact Us

BES CM2450 EV107B Refresh

Installed SCM Code  
OA10005.10 [See details](#)  
SCM is up to date with the latest calibration.

Search Calibrations

Find Online

> This PC

LEGEND **REPLACED CALIBRATIONS** | ACTIVE CALIBRATIONS | AVAILABLE CALIBRATIONS |

| Drive Name  | Drive Type | Total Size    | Available Free Space |
|---|------------|---------------|----------------------|
| Production Calibration Workspace (C:\Users\ow784\AppData\Roaming\CumminsServiceDiagnostics\CalibrationWorkspace\Production) | Folder     | 1023026393088 | 630073397248         |

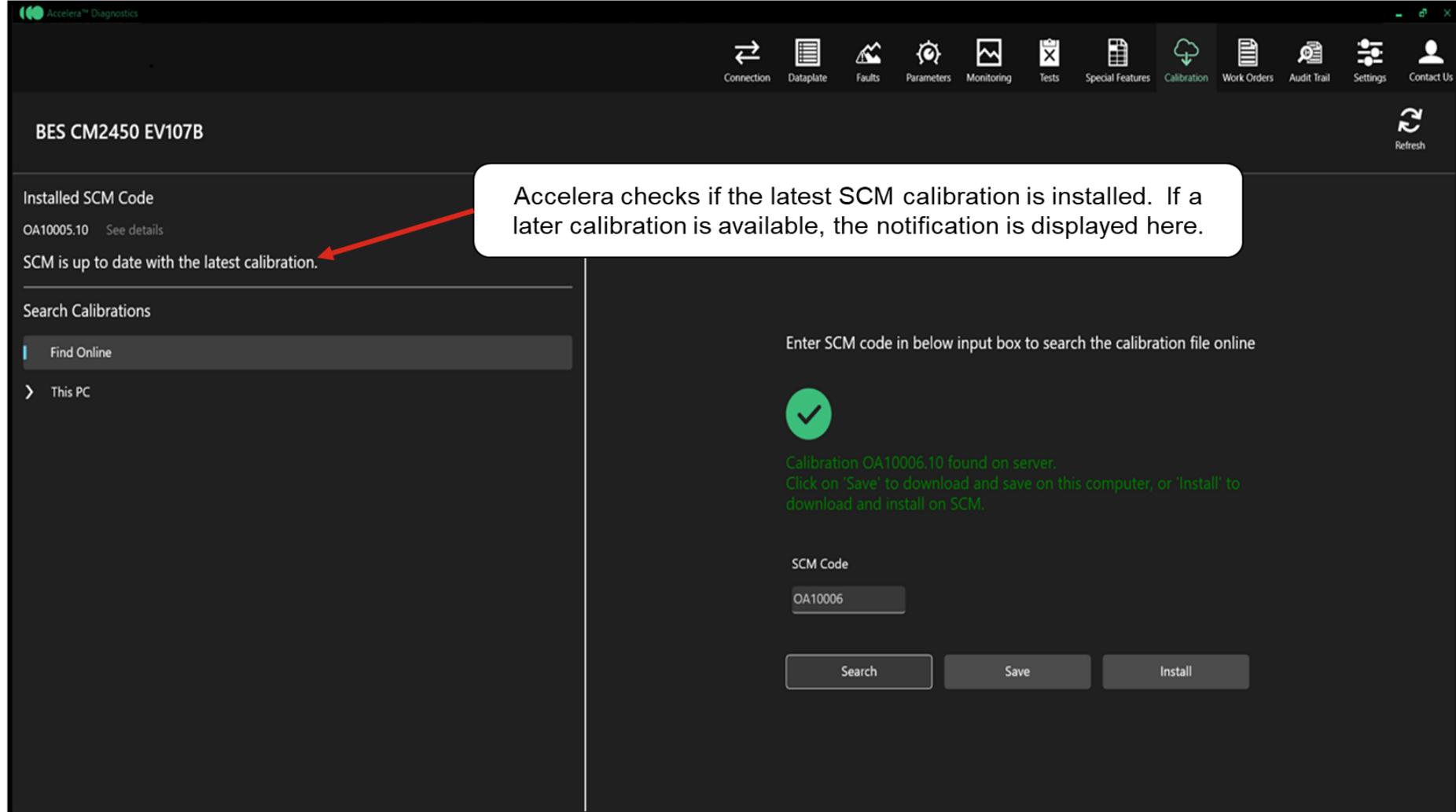
Connected with BES CM2450 EV107B via Cummins USB-Link 3,USB v6.1.53

# Accelerera Diagnostics

## CALIBRATION SCREEN/TAB

Click on **Find Online** to search for a calibration on the web.

Once the calibration file is found, either save it to the local computer/drive or click on install to send it directly to the SCM.



The screenshot displays the Accelerera Diagnostics interface for a BES CM2450 EV107B engine. The top navigation bar includes icons for Connection, Dataplate, Faults, Parameters, Monitoring, Tests, Special Features, Calibration, Work Orders, Audit Trail, Settings, and Contact Us. The main content area shows the installed SCM Code as OA10005.10. A notification states "SCM is up to date with the latest calibration." Below this, the "Search Calibrations" section has "Find Online" selected. A search input box contains "OA10006" and the "Search" button is highlighted. A green checkmark icon indicates a successful search, with a message: "Calibration OA10006.10 found on server. Click on 'Save' to download and save on this computer, or 'Install' to download and install on SCM." A red arrow points from a text box to the "SCM is up to date" message.

Accelerera checks if the latest SCM calibration is installed. If a later calibration is available, the notification is displayed here.

Enter SCM code in below input box to search the calibration file online

Calibration OA10006.10 found on server.  
Click on 'Save' to download and save on this computer, or 'Install' to download and install on SCM.

SCM CODE  
OA10006

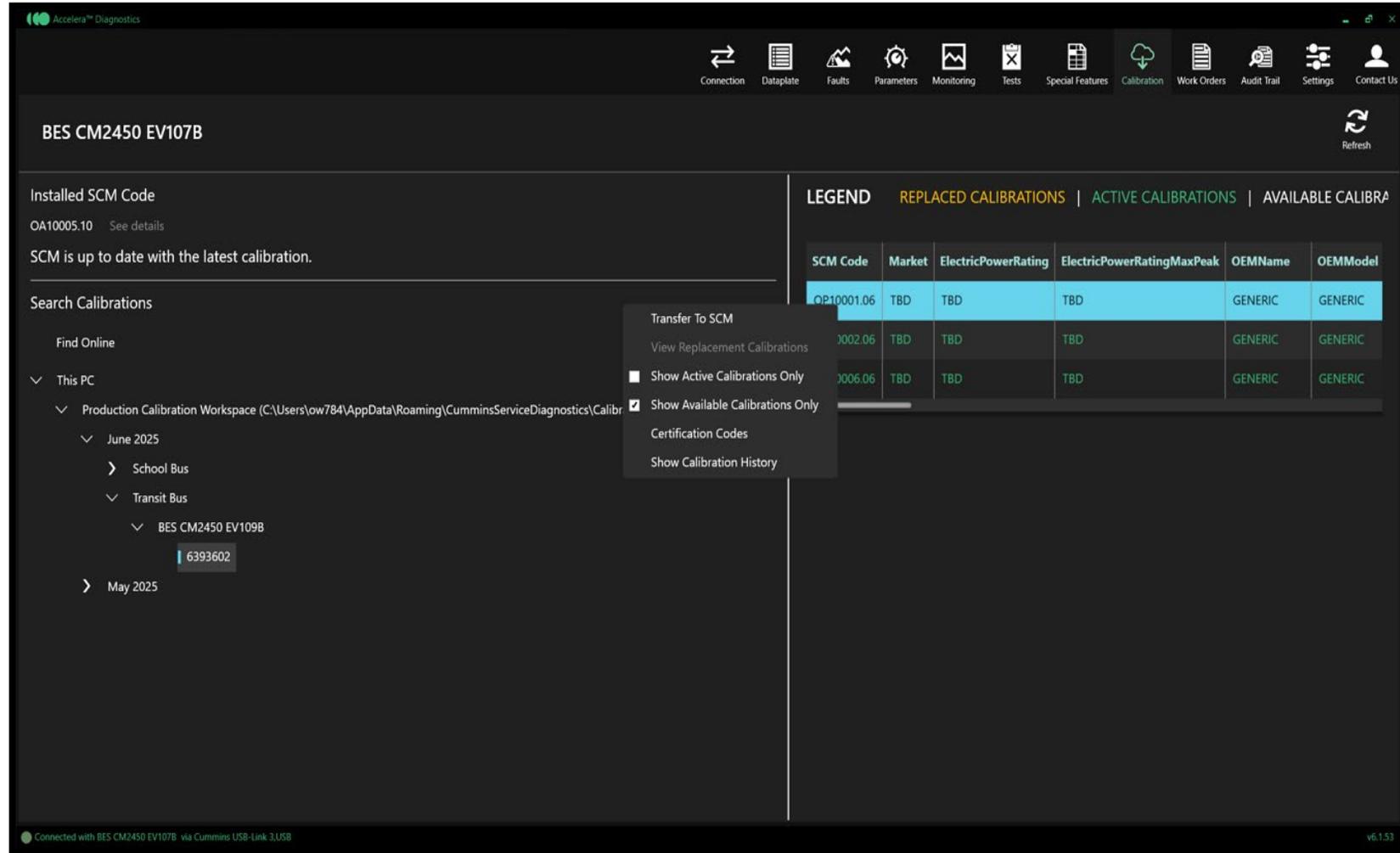
Search Save Install

# Accelera Diagnostics

## CALIBRATION SCREEN/TAB

To use a calibration already stored locally on the local computer:

- From “This PC” expand the drop-down menu for the correct product.
- Click on the part number to populate the calibration codes.
- Right click on the desired calibration.
- Click on Transfer To SCM to start the calibration process.



The screenshot shows the Accelera Diagnostics interface for a BES CM2450 EV107B. The main content area is divided into two sections. On the left, under 'Search Calibrations', there is a tree view showing the expansion of 'This PC' > 'Production Calibration Workspace' > 'June 2025' > 'Transit Bus' > 'BES CM2450 EV109B', with the calibration code '6393602' highlighted. On the right, a table displays calibration data. A context menu is open over the first row of the table, with 'Transfer To SCM' selected.

**LEGEND** | REPLACED CALIBRATIONS | ACTIVE CALIBRATIONS | AVAILABLE CALIBRATIONS

| SCM Code   | Market | ElectricPowerRating | ElectricPowerRatingMaxPeak | OEMName | OEMModel |
|------------|--------|---------------------|----------------------------|---------|----------|
| OP10001.06 | TBD    | TBD                 | TBD                        | GENERIC | GENERIC  |
| J002.06    | TBD    | TBD                 | TBD                        | GENERIC | GENERIC  |
| J006.06    | TBD    | TBD                 | TBD                        | GENERIC | GENERIC  |

Context Menu Options:

- Transfer To SCM
- View Replacement Calibrations
- Show Active Calibrations Only
- Show Available Calibrations Only
- Certification Codes
- Show Calibration History

Bottom status bar: Connected with BES CM2450 EV107B via Cummins USB-Link 3,USB v6.1.53

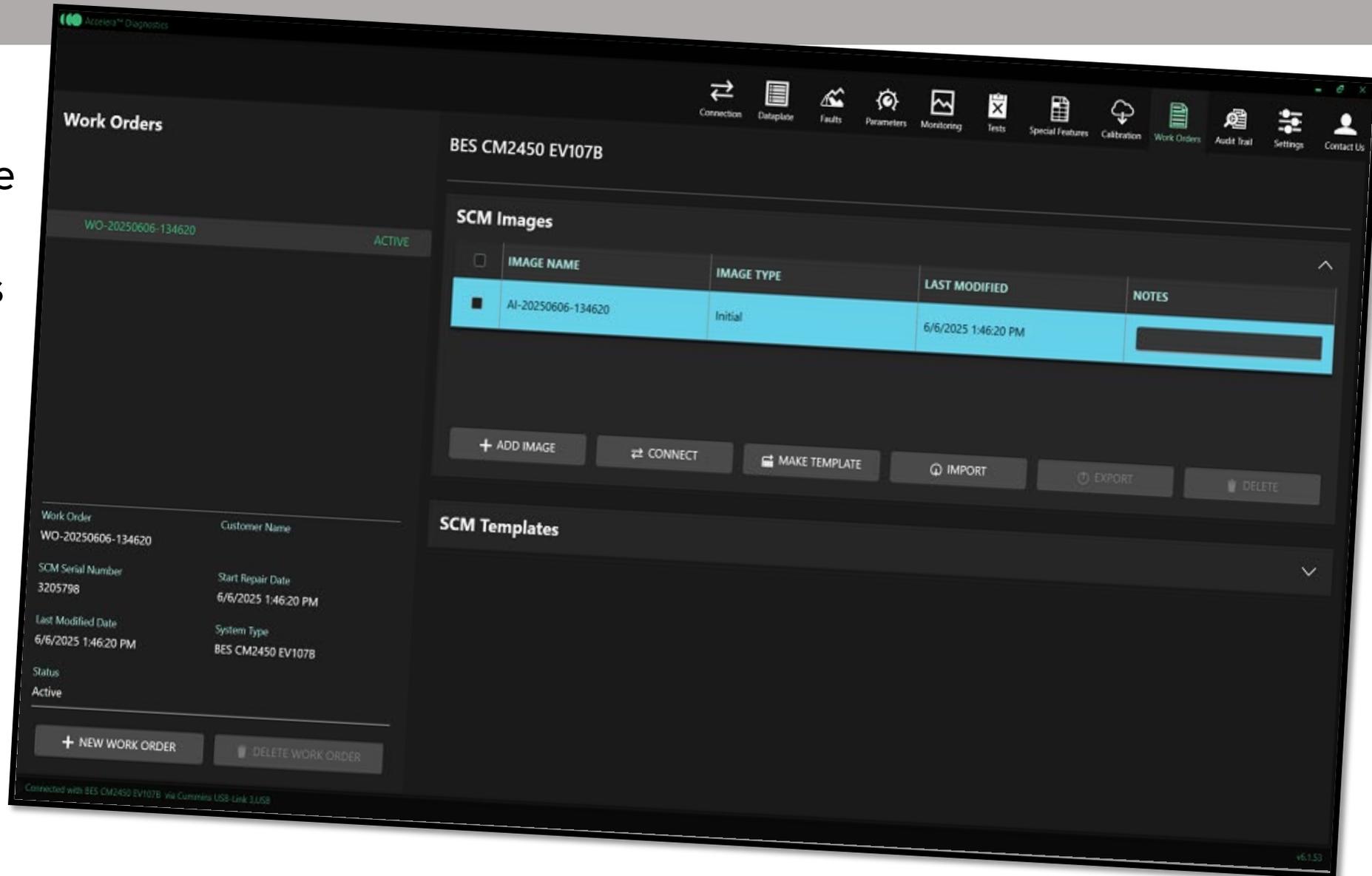
# Accelera Diagnostics

## WORK ORDER SCREEN/TAB

By default, Accelera Diagnostics will create a new work order every time it connects to a vehicle.

From the work order tab:

- View existing work orders.
- Import a work order that has been shared with you.



Accelera™ Diagnostics

Work Orders

BES CM2450 EV107B

WO-20250606-134620 ACTIVE

| IMAGE NAME         | IMAGE TYPE | LAST MODIFIED       | NOTES |
|--------------------|------------|---------------------|-------|
| AI-20250606-134620 | Initial    | 6/6/2025 1:46:20 PM |       |

+ ADD IMAGE    CONNECT    MAKE TEMPLATE    IMPORT    EXPORT    DELETE

SCM Templates

Work Order: WO-20250606-134620    Customer Name:    SCM Serial Number: 3205798    Start Repair Date: 6/6/2025 1:46:20 PM    Last Modified Date: 6/6/2025 1:46:20 PM    System Type: BES CM2450 EV107B    Status: Active

+ NEW WORK ORDER    DELETE WORK ORDER

Connected with BES CM2450 EV107B via Cummins USB-Link 3.1USB

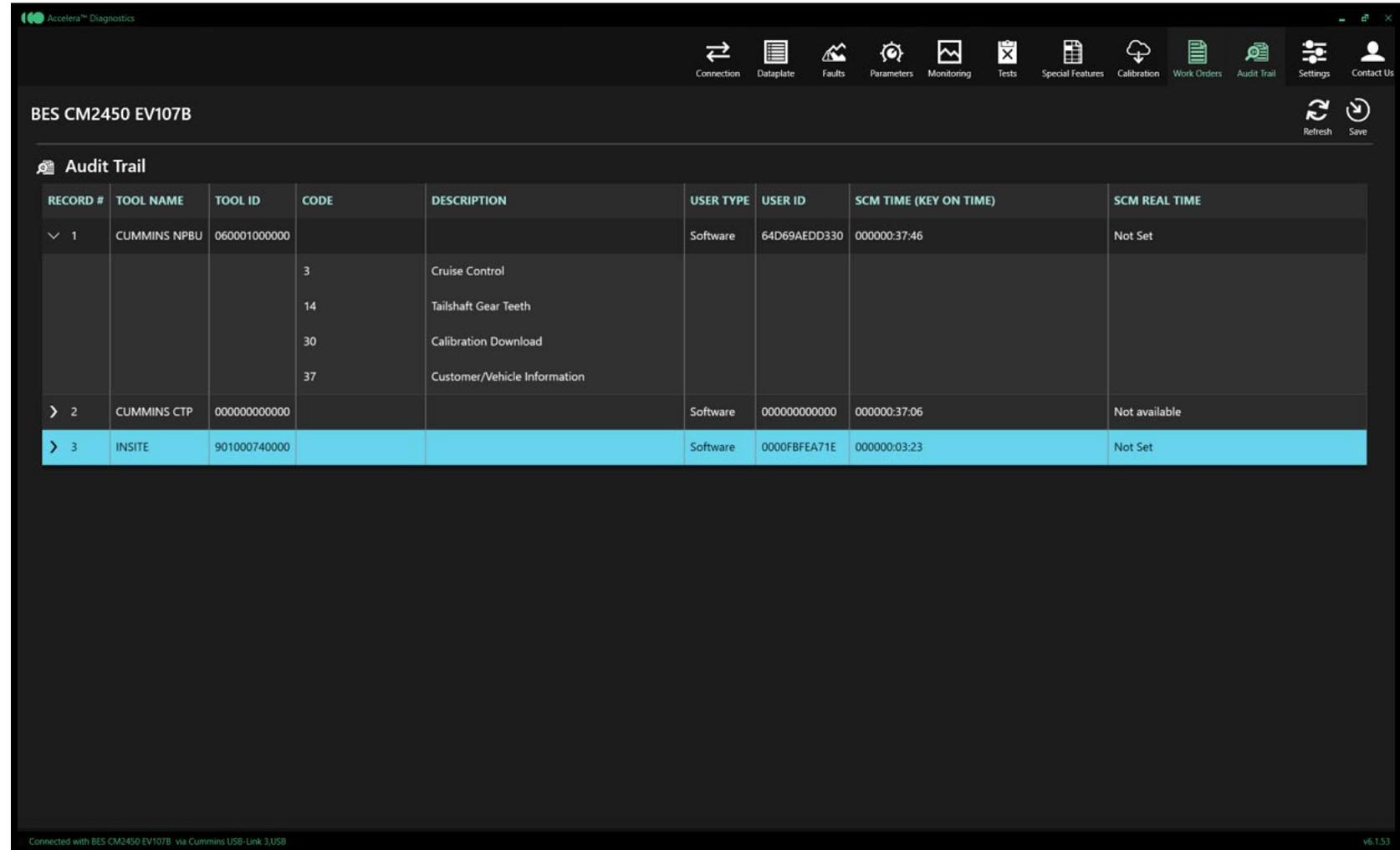
v6.1.53

# Accelerera Diagnostics

## AUDIT TRAIL SCREEN/TAB

Use the audit trail tab to view what changes have been made to the module during each connection.

In this example, we can see several adjustable parameters were modified and a new calibration was downloaded.



BES CM2450 EV107B

**Audit Trail**

| RECORD # | TOOL NAME    | TOOL ID      | CODE | DESCRIPTION                  | USER TYPE | USER ID      | SCM TIME (KEY ON TIME) | SCM REAL TIME |
|----------|--------------|--------------|------|------------------------------|-----------|--------------|------------------------|---------------|
| 1        | CUMMINS NPBU | 060001000000 |      |                              | Software  | 64D69AEDD330 | 000000:37:46           | Not Set       |
|          |              |              | 3    | Cruise Control               |           |              |                        |               |
|          |              |              | 14   | Tailshaft Gear Teeth         |           |              |                        |               |
|          |              |              | 30   | Calibration Download         |           |              |                        |               |
|          |              |              | 37   | Customer/Vehicle Information |           |              |                        |               |
| 2        | CUMMINS CTP  | 000000000000 |      |                              | Software  | 000000000000 | 000000:37:06           | Not available |
| 3        | INSITE       | 901000740000 |      |                              | Software  | 0000FBFEA71E | 000000:03:23           | Not Set       |

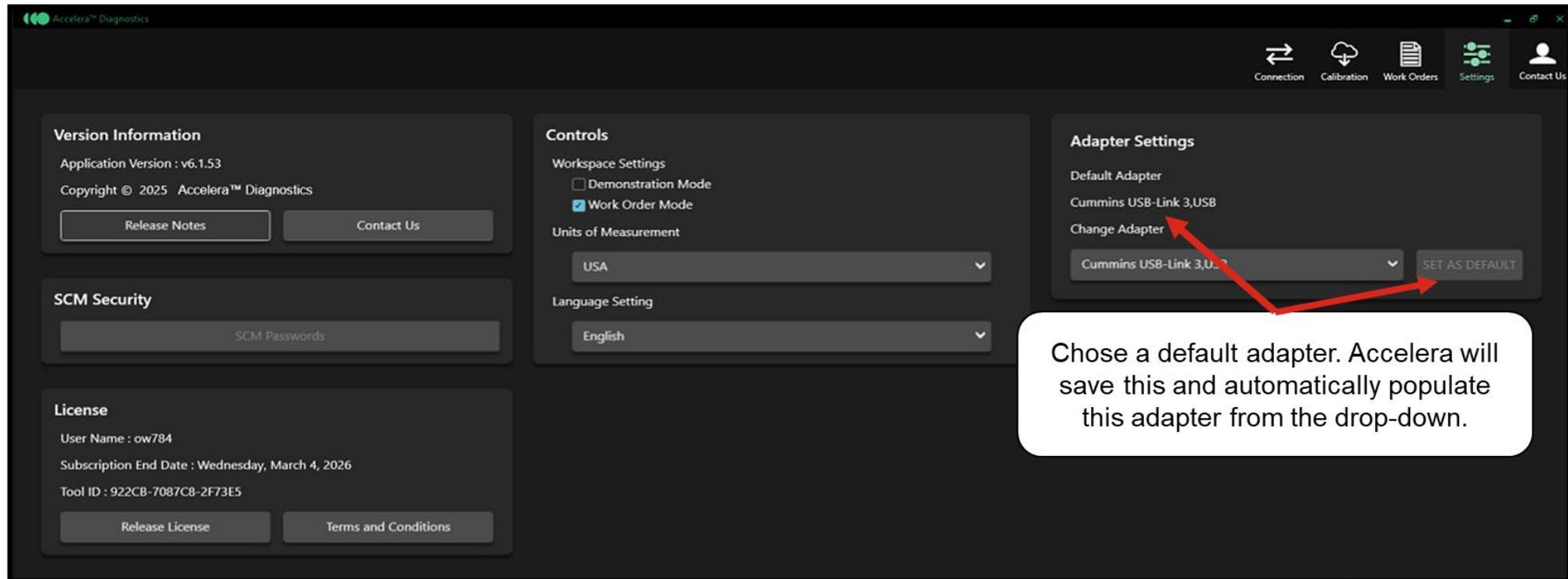
Connected with BES CM2450 EV107B via Cummins USB-Link 3,USB v6.1.53

# Accelera Diagnostics

## SETTINGS SCREEN/TAB

From the settings tab:

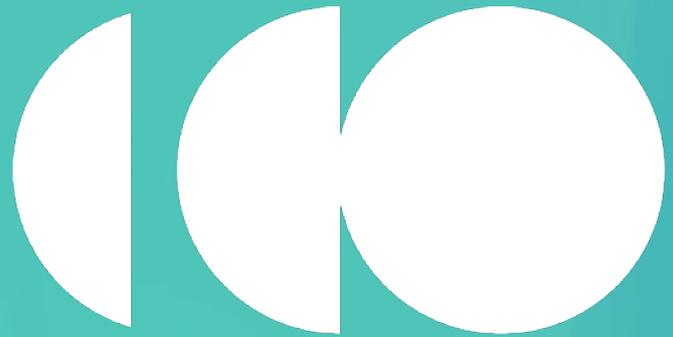
- Select which adapter is being used.
- Disable work order mode (this is turned on by default).
- Change the preferred language.



The screenshot shows the Accelera Diagnostics Settings screen. The interface is dark-themed and organized into several sections:

- Version Information:** Application Version : v6.1.53, Copyright © 2025 Accelera™ Diagnostics. Buttons: Release Notes, Contact Us.
- SCM Security:** SCM Passwords (input field).
- License:** User Name : ow784, Subscription End Date : Wednesday, March 4, 2026, Tool ID : 922CB-7087C8-2F73E5. Buttons: Release License, Terms and Conditions.
- Controls:**
  - Workspace Settings:  Demonstration Mode,  Work Order Mode.
  - Units of Measurement: USA (dropdown menu).
  - Language Setting: English (dropdown menu).
- Adapter Settings:** Default Adapter: Cummins USB-Link 3,USB. Change Adapter: Cummins USB-Link 3,U... (dropdown menu). Button: SET AS DEFAULT.

A red arrow points from the 'Change Adapter' dropdown menu to the 'SET AS DEFAULT' button. A white callout box with a red border contains the text: "Chose a default adapter. Accelera will save this and automatically populate this adapter from the drop-down."



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