

Guidanz® Diagnostic Toolkit – Mobile App Training Material.

**VERSION 7.3** 



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# WHAT'S NEW

## VERSION 7.3

- Diagnostic Session Improvements
- Secure Calibration Management

#### IMPORTANT:

Redmi 10 users who are using Android OS 12 or higher might experience Bluetooth pairing issue with Inline devices.

#### SECURE CALIBRATION MANAGEMENT - ENGINE CALIBRATION & UPRATE PROCESS GUIDE

- Engine Calibration Installation Requirements
  - o ESN stored in the ECM must match the ESN on the engine's physical data plate.
- Engine Uprate Requirements
  - o An approved engine data plate request is required before performing an engine uprate.
- Pre-Authorization (when the device will not be connected to the internet at the time of installation.
  - Obtain installation approval for each ESN.
    - Reason for Download
      - Revision Update
      - Campaign
      - TRP (Theft Recovery Program)
      - ATC (Aftertreatment Calibration)
      - Uprate
      - TSB (Technical Service Bulletin)
      - New ECM
    - If the reason is Campaign, TRP, ATC, or TSB, also provide:
      - Campaign/TRP/ATC/TSB ID

# GENERAL USAGE

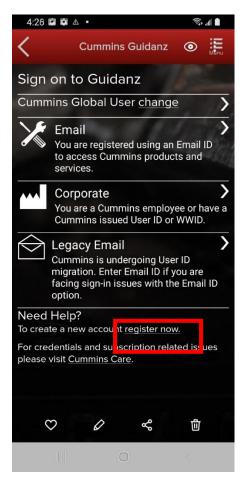
## REGISTRATION AND LOG IN

Guidanz Diagnostic Toolkit Mobile Application requires users to register before connecting to any Engine

Cummins employee or distributor: You need a valid username and password. If you do not have a valid username and password, you can "register here".

Cummins certified dealer: Please contact your local Cummins distributor to obtain the appropriate access to Guidanz Diagnostic Toolkit





If a user registered in China wants to log into the Mobile app, the user needs to change the region by clicking on the "Change region" link before login for authentication.

# After registration

Please select the correct login for your scenario:

- External users: Dealers and Individuals
- Internal (Cummins users): Distributors
- Legacy Email: Users with a non-email username

After successful Login users will need to set a PIN code and accept the EULA Terms and Conditions to land on home page.

PIN codes must match the following:

- PIN must be at least six numbers and can be up to sixteen numbers long.
- The PIN cannot be an entire sequence of numbers such as 123456 or 654321.
- The entire PIN cannot be a sequence that simply repeats two digits like 121212.
- You cannot repeat any single number 4 or more times, such as 000012.



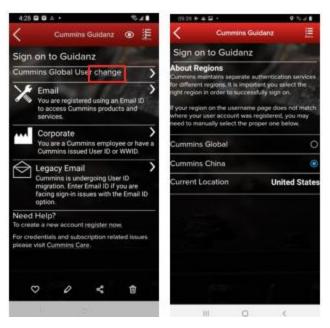


Figure 0-1 Sign on Page.



Figure 0-2 Pin creation screen

## SUBSCRIPTION MANAGEMENT

To view your current active subscriptions, users can navigate to: Settings Account Management à Select the user under Profiles and Accounts à Subscription Management

# SUBSCRIPTION LEVELS

Guidanz Diagnostic Toolkit Mobile App supports the following subscriptions. Please navigate to the specific document section to view features available for a specific subscription.

- Guest User
- Immediate Assessment (IA)
- Service Diagnostics
- RSGR



# SUBSCRIPTION EXPIRATION NOTIFICATIONS

When a user's subscription will expire in fourteen days or less, - a colored icon will be displayed on the Subscription Management page.

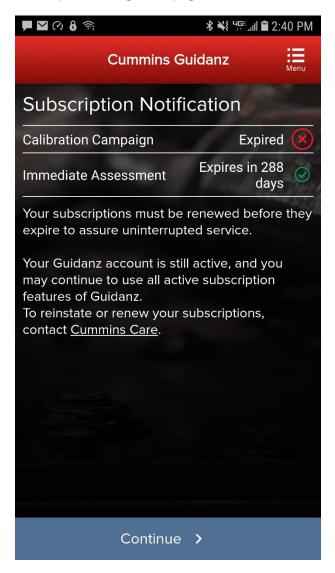


Figure 0-3 Subscription Expiration Notification.

## AUTO UPDATE OF APP.

Please use the screenshots below to enable auto updating of the app on your specific OS.



- In iOS:
  - Go to Settings and Enable the Updates option



In Android:

- Open Google Play app
- Activate the Auto-update apps option

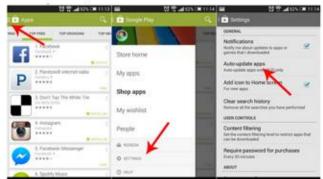


Figure 0-4 Auto Update.

# HOME/START PAGE OVERVIEW

After logging in, the user will see the home page.

Note: When the user is on the Home Page/Start Page, the Guidanz Mobile app is disconnected from the controller.

Note: Features displayed on the home page are dependent upon the user's subscription level.





Figure 0-1 Home Page with all subscription options enabled.

#### **NEW ASSESSMENT**

New Assessment allows IA users to Read and prioritize faults in the connected Engine. It also allows them to create a Service Request.

## PENDING SERVICE REQUESTS

Pending Service Requests allows users to view scheduled Service request on their calendar and connect to the vehicle to perform an Immediate assessment.

#### ANALYZE EQUIPMENT

Analyze Equipment allows users to connect to the Engine or Controller to read/reset faults, view Device Settings, run Diagnostic tests, and monitor parameter values.

#### HISTORY AND TEMPLATES

History and Templates allows users to view and connect to ECM images or Capture files.

# OFFLINE DIAGNOSTIC SESSIONS

Diagnostic Sessions can be started or continued while offline by selecting the History and Templates icon from the Home screen and then clicking the Diagnostic Sessions row.



Technicians can search Diagnostic Sessions created at their location by selecting "Search Online." The search options allow users to specify a Diagnostic Session or Engine Serial Number.

Not entering any Diagnostic Session number, or Engine Serial Number, allows the users to view all Diagnostic Sessions at their location based on the status and duration selected in the drop down menu.



Figure 0-2 Diagnostic Session Search page.

#### SCAN FAULTS

Scan Faults is a quick connection that takes the user directly to the Faults page.

## **CALIBRATION FILES**

Calibration files allow the user to view the currently downloaded calibration files, and download additional calibrations to the device.

# GUIDANZ SERVICE EVENT MANAGEMENT

Link that takes users directly to the Guidanz Service Event Management login screen.

#### **CONTACT CUMMINS**

Contact Cummins allows users to call, email, or navigate to the Cummins Support Team.

# **SETTINGS**

Settings allows the user to manage their account and change displays settings like Units of measure & and work order creation on connection.

#### **ACCOUNT**



**Account Management** - Allows user to view subscription status, change pin, remove user profiles, add new users, enable/disable background/foreground locks and time, change PIN, Change Display Style

#### **CONNECTIVITY**

Add New Adapter - Allows users to add a new adapter.

Change Active Adapter - Allows users to add a new adapter.

**Change Storage Limits** – Allows user to change the duration IA records are stored for. By default, they are stored for 30 days.

## **PREFERENCES**

**Notifications** - Allows user to enable/disable onscreen notification when the adapter goes out of range or when a time-consuming task (like calibration update) is completed.

Refresh & Update Defaults – Allows user to set faults and monitor refresh rates.

Language - Allows user to change the language.

Share Location in Email - Shares location GPS coordinates in email

#### **ABOUT**

Cummins Guidanz link - Shows app version and displays intro screen again.

Terms of Service - Shows user the End User License Agreement

Privacy Policy - Allows user to see Cummins Inc. Privacy Policy

Feedback – Allows user to contact <a href="mailto:servicetoolsupport@cummins.com">servicetoolsupport@cummins.com</a>

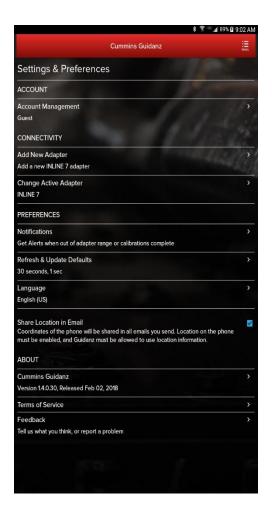


Figure 0-3 Settings Page

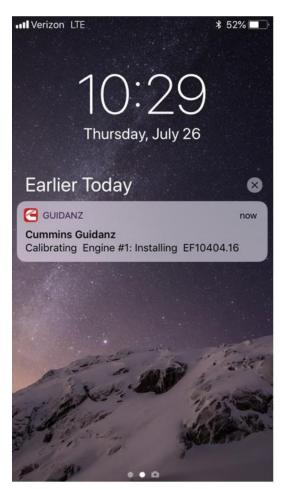


# LANGUAGE

Language allows users to change the display language to English, French, Spanish, Chinese, and German.

## **DEVICE NOTIFICATIONS**

If the mobile device locks during connection, the app will display notifications on the phone lock screen.



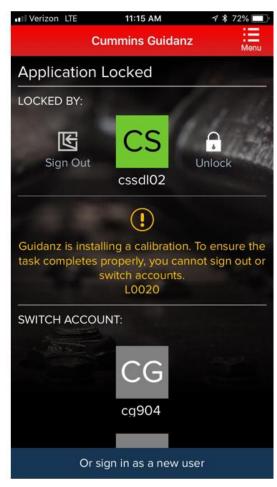


Figure 0-4 Device notifications.

# ENGINE DRIVEN CONTROL FEATURES

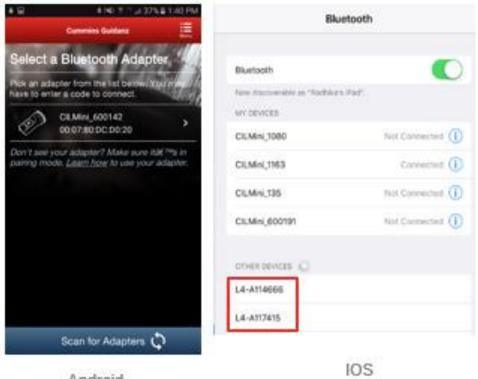
SERVICE SUBSCRIPTION & RSGR SUBSCRIPTION

## ADAPTER CONNECTION

For Initial Pairing, the adapter must be put in pairing mode. Hold the reset button at the end of the adapter for about 2-3 seconds. The light on the adapter will flash for about 2 minutes. You must pair it to the device within that time. For subsequent connections, the device will be able to find the adapter without needing to press the button on the adapter. The adapter can be identified by the last few digits of the s/n on the label.

Figure 0-1 Adapter Connection Screen





Android siring screen is within the app Pairing and connection is done on the devices Bluetooth settings window

Figure 0-2 Pairing Adapter Android & IOS.

## FIRMWARE UPDATE OF INLINE™ MINI

If the firmware of the INLINE Mini needs to be updated, once you have selected the INLINE Mini adapter in the App, the App will automatically update it and display a status update once completed.

If a firmware update has been completed, please be aware that you will have to reconnect again the INLINE Mini.





Figure 0-3 INLINE Mini firmware update.

## MULTI - LEVEL SECURITY

During connection, if the ECM has a password set, users will be prompted to enter the password to complete the connection.

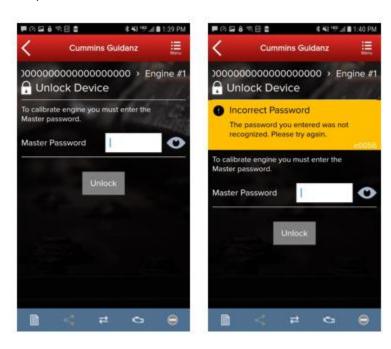


Figure 0-4 MLS Unlock screen during connection.



The MLS screen can also be accessed through the Toolbar 3 dot menu. Technicians can set, lock, unlock, and remove ECM passwords through the Manage Passwords screen.



Figure 0-5 Manage Passwords screen

## INTAKE

During the Intake process, the application will connect to the selected Datalink adapter and pull the vehicle, engine serial number and Customer Name. Users can edit and change this information if they are incorrect.

The intake page also offers the ability to automatically create an ECM image during intake if desired. The default behavior of the "Create ECM Image" checkbox is controlled on the <u>Settings</u> Page.



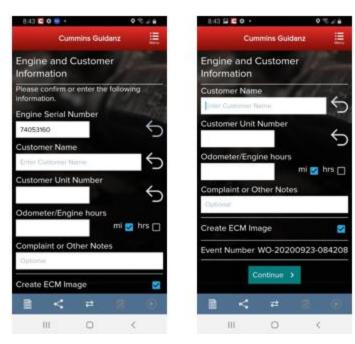


Figure 0-6 Engine serial number pulled from ECM. Users can edit.

Based on the confirmed ESN, the equipment make and model list is retrieved from the server. The application pre-selects the data received from warranty data on the server and from the ECM if available. The user will still need to confirm these selections.

If there is no manufacturer list, it can be caused by:

- No data based on the ESN provided.
- No Internet
- Server maintenance or downtime

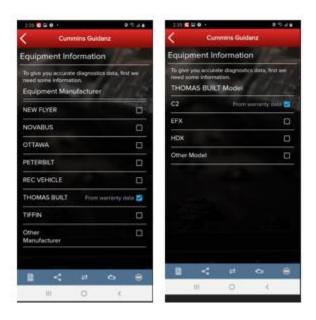


Figure 0-7 Make & Model screen.



During the Intake process, GDTK Mobile will validate the Engine Serial number and calibration on the ECM with the expected calibration for that engine. If there is a difference, the application will inform the user of the expected calibration and will allow the user to recalibrate the ECM with the correct calibration without requiring a Cal-Assist unit. (MY 2013 and up engine programs only.)

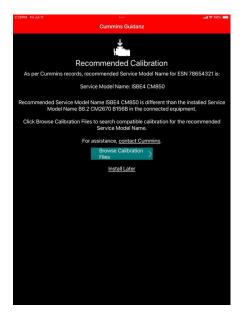


Figure 8 Secure Calibration Management ESN mismatch

# **ECM IMAGE CREATION**

An ECM image is a snapshot of the state of the controller at the time the image is created. ECM Images include Faults, Device Settings, and Audit Trail information that can be exported and mail to other users of both Guidanz Diagnostic Toolkit Mobile App and INSITE.



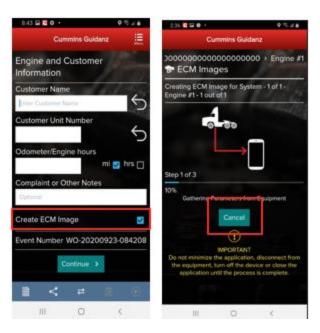


Figure 0-9 ECM Image Creation.

# ENGINE SERIAL NUMBER (ESN CAMPAIGN ELIGIBILITY CHECK)

If the ESN entered in User Input screen is eligible for a Calibration Campaign, Guidanz will notify the user of the availability of a calibration campaign calibration. To get to the Equipment Summary screen, click on Install Later. To instructions on the calibration process, please see <u>Calibrate Engine</u>.



Figure 0-10 Campaign Eligible Vehicle.



The Equipment Summary screen will show (if available):

- Equipment Dataplate
- Cummins Engines or control modules
- Public Cummins devices
- Other devices

A yellow indicator will show unsupported devices (e.g., Rom booted devices.

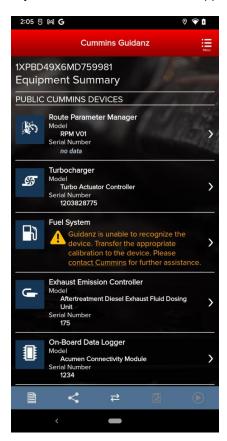


Figure 0-11 Equipment Dashboard.

## **EQUIPMENT DATAPLATE**

The Equipment Dataplate can be accessed via the Equipment Summary Screen and Engine Dataplate. It contains the information the user enters such as customer name, manufacturer, model, and well as other information.



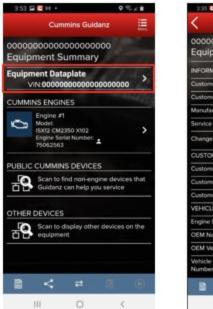




Figure 0-12 Equipment Dataplate screen

#### **DEVICE DASHBOARD**

The device dashboard can be accessed by clicking on a Cummins engine/control module, Public Cummins device or other device from the Equipment Summary screen. The device dashboard shows all functionality available for the specific device.



Figure 0-13 Device Dashboard for a Cummins ECM





Figure 0-14 DEF Dosing Unit device dashboard.

# **ENGINE DATAPLATE**

The Engine Dataplate can be accessed via the device dashboard. The Dataplate contains information read from the ECM such as calibration information, ESN stored in the ECM, and system information.





Figure 0-15 Engine Dataplate



# **ECM FAULTS**

Selecting Faults on the Device dashboard displays the Faults and Analysis screen (internet connectivity required) with Primary, Related, & Unprioritized faults.

# PRIORITIZED, SECONDARY, & UNPRIORITIZED FAULTS

Primary Faults are critical faults that should be repaired first. Resolving the primary faults will many times also resolve secondary faults.



Figure 0-16 Faults screen from Cummins ECM

## **FAULT SNAPSHOT**

Clicking on an individual Cummins Fault Code displays the Fault Details and snapshot (if supported.)

# PROGNOSTIC FAULTS

Prognostic Faults give users the ability to see faults before they occur, resulting in lower unplanned downtime.





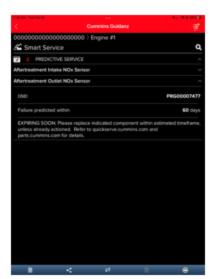


Figure 0-17 Prognostic Faults

# FIS (FAULT INFORMATION SYSTEM)

Clicking on a fault code number will open the respective Fault Information System (FIS) file in a web browser (Internet required.)



Figure 0-18 QSOL Fault Code FIS file.

# **CLEARING FAULT CODES**



- To clear fault codes, click on the right-hand top Menu option and select Clear All Faults
- After user confirms to Clear Faults Now, app continues to Key Off/Key On process.
- At the end of the process, app confirms Faults cleared successfully.
- If user Cancels, no faults will be cleared.

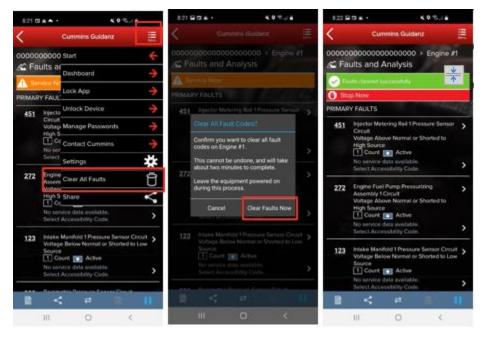
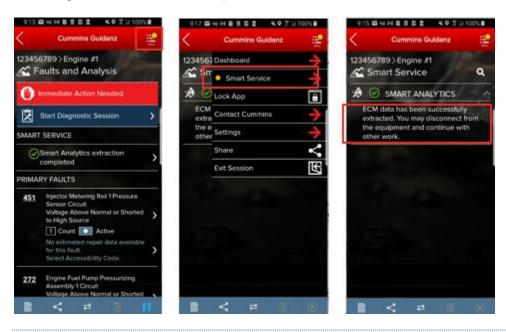


Figure 0-19 Fault Screen with Clear all Faults menu selected.

# **SMART ANALYTICS**

After connection to supported Engines, Guidanz will begin Smart analytic extraction. Please stay connected to the engine until extraction is completed.



FIELD REPAIR ACTIONS



Field Repair Actions display the list of open Temporary Repair Practices (TRP) and Campaigns for the ESN of the connected engine. Once user clicks on Field Actions the number of available Campaigns and TRPs will be displayed.

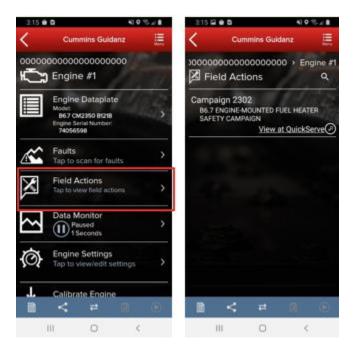


Figure 0-20 Field Action Repairs.

#### **DIAGNOSTIC SESSIONS**

## **CREATING**

Diagnostic Sessions can be created or continued from the Faults screen by click "Start Diagnostic Session." After selecting to start a new Diagnostic Session, or continue one already started, the app will display the equipment information screen. Please confirm or change the information as needed and click Continue to begin/resume the Diagnostic Session.

## **SOLUTIONS**

The Diagnostic Session can be navigated too by selecting the icon on the Ribbon.



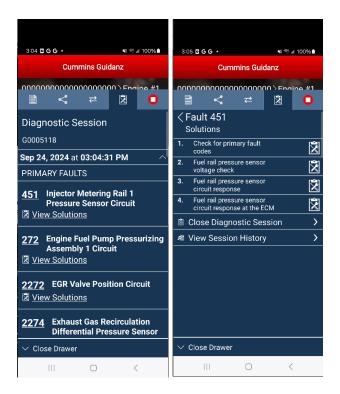


Figure 0-21 Open Diagnostic Session Window and Solutions

# ACCESSIBILITY CHECKLIST

The Accessibility Checklist for a fault is accessible by click the "ACCESSIBILITY CHECKLIST" row in the Diagnostic Session container. After selecting the required items, scroll down and click the Submit button to add the checklist items to the Diagnostic Session.

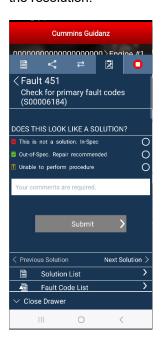




Figure 0-22 Accessibility Checklist and troubleshooting solution

#### **SOLUTIONS**

After verifying the Solution specification, select the appropriate outcome and comments. After completion, the "Submit" button will become enabled to allow the Diagnostic Session to be updated with the resolution.





## Figure 0-23 Troubleshooting Solution

# VIEWING AND SHARING DIAGNOSTIC SESSION HISTORY

The Diagnostic Session can be shared over email by selecting "View Session History" from the bottom of the Diagnostic Session screen.



Figure 0-24 Diagnostic Session screen





Figure 0-25 Diagnostic Session History

#### DATA MONITOR

Clicking on Data Monitor on the ECM Device Dashboard takes the user to the Data Monitoring screen which allows the user to monitor and record parameters. Parameters are divided into pre-defined groups that can be selected based on the vehicle behavior being experienced. When clicking on Monitor the user can monitor all parameters while ECM is running.

#### MONITORING

From the monitoring screen users can perform the below actions:

- Open the Data Monitoring control screen by selecting the Monitoring, Recording, or Stop button.
- Modify the Sampling rate by stopping the monitoring session, and then clicking the sampling rate and end time button on the bottom right of the screen.
- Start the recoding process by clicking on the Record button.



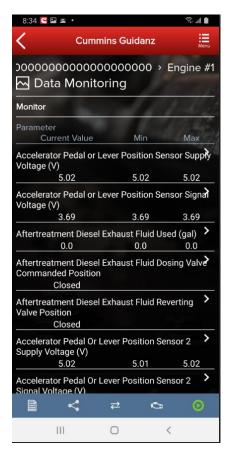


Figure 0-26 DML while monitoring.

## RECORDING

When clicking on the green button, the Data Monitoring control screen is opened. The user can start and pause (stop) DML and change the time settings. When clicking on the Record button the user can record the parameters. While recording, each time the user clicks the Pause button or leaves the DML screen a record file is created and stored.



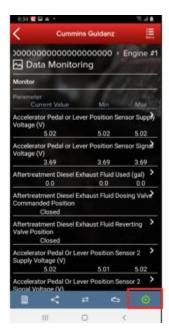




Figure 0-27 DML Start Recording.

#### **CUSTOM GROUPS**

Custom groups offer users the ability to monitor parameters from different pre-defined groups without limiting the adapter bandwidth by using the entire "Monitor" group. To create a custom group, select the manage groups icon from the Data Monitor page, and then click "New Group." The tool will provide a list of all available parameters in the ECM that can be selected to monitor. After selecting the desired parameters, give the group a name in the top left text box, and save.

Once a custom group is created and saved, it can be used anytime going forward, regardless of the connected engine. Note that any parameters in the custom group not available in the current calibration will not be displayed.





#### **ENGINE SETTINGS**

Clicking on Engine Settings on the ECM Device Dashboard the user is taken to the Engine Settings screen where the user can see the values of each parameter. User can view and edit System ID and Dataplate settings by clicking on System ID and Dataplate in the Engine Settings screen.

## ADJUSTING SETTINGS

User can search the Engine Settings parameter list. User can change parameter and sub-parameter values that are not locked by changing the value within the specified min and max values.

After user confirms the changes, user can save changes. Changes are written to ECM by going through Key Off/Key On process. At the end of the process, saved changes are confirmed. If you move away from the screen without saving, the changes will be discarded.

RSGR subscription users will see that Road Speed Governor Restricted parameters in Engine settings are locked and not adjustable.







Figure 0-28 Engine Settings adjustments.

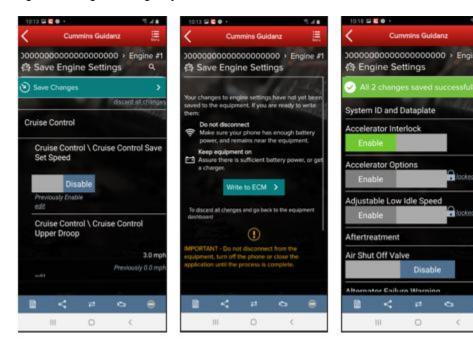


Figure 0-29 Engine Settings adjustments cont.

#### CALIBRATE ENGINE

Clicking on Calibrate Engine will allow the user to update the Engine to the latest calibration revision if a newer revision is available.

0

# DOWNLOADING NEW REVISION



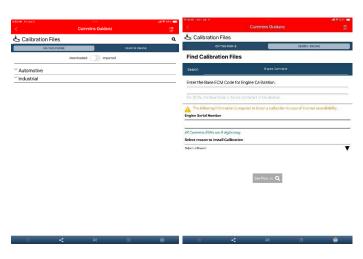
When Guidanz detects a new revision or a calibration mismatch with the expected calibration of the ECMusers will be prompted to download the ECM Code.



Figure 0-30 Engine calibration with new revision detected.

# SEARCHING AND DOWNLOADING CALIBRATIONS

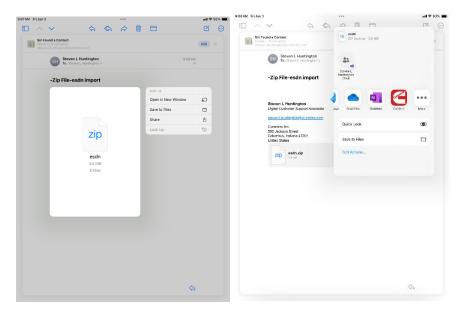
Users can search calibration base codes and download to the app by selecting Calibration Files from the Home screen. On the Calibration Files page, selecting "Search Online" will display a display a search box.



**IMPORTING CALIBRATIONS** 



Properly configured calibration packages can be imported from email by selecting the package and "sharing" it from the email client to GDTK





#### **CALIBRATION PROCESS**

If there is a new ECM code available, and the user clicks on the Calibrate Engine feature on the ECM Device Dashboard, the user will be taken through the process to upgrade to the latest ECM code revision.

Only for an ESN in campaign, if the calibration download fails or the ECM gets rombooted during the calibration download, the user can recover the ECM by going through the pre-defined steps using the same device and user login.

Calibrations are stored on the device can be used to update or change the calibration of an ECM.



The calibration process is broken into three sections:

- Downloading the new calibration to the mobile device
- Transferring the new calibration to the ECM
- Restoring and closing the ECM after the transfer process

The process of transferring the new calibration to the ECM can take up to thirty minutes, and should only be performed when the vehicle has sufficient battery capacity. Failure to meet the standards can result in the vehicle becoming inoperable. At the beginning of the transfer process, users have the option to save and restore adjustable parameters to the ECM after the calibration process. It is highly recommended that users select this option when performing a calibration update.





Figure 0-31 Calibration Selection.



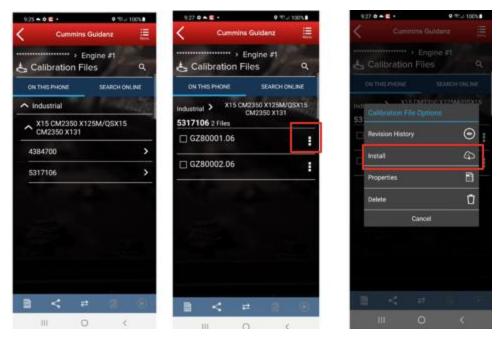


Figure 0-32 Selecting Calibration to Install from device.



Figure 0-33 Calibration Process started.







Figure 0-34 Calibration process cont.





Figure 0-35 Key off instructions after calibration update.

## CALIBRATION FAILURE (ROM-BOOT RECOVERY)

In the event of a calibration failure, users can recover the ECM through the Calibration recovery process. Calibration Recovery only works when using the same device that was used for original calibration download. No Cal Assists are required for Calibration Recovery.



If there is a loss of communication in Step 1 of 4 of calibration installation, the app will inform the user that the download failed with the option to Try Again. After re-establishing the connection and clicking on Try Again, the calibration download will start again. At this point, the module is not Rom booted.

If there is a calibration download failure in Step 2 of 4 without any loss of communication, the app will inform of the failure status of the module with the option to Try Again.

If there is a loss of communication in Step 2 of 4, the app will inform the user that the download failed with the option to Start Over (Snapshot 2). Please Key off the module for 90 seconds before reconnecting, you will see Snapshot 1.

At this point, in both cases, the module is ROM booted.

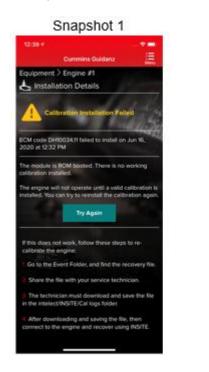




Figure 0-36 Calibration Recovery process.

If there is a calibration download failure in Step 3 of 4 or Step 4 of 4 without any loss of communication, the app will inform of the failure status of the module with the option to Ignore and Continue or Try Again. If there is a loss of communication in Step 3 of 4 or Step 4 of 4, the app will inform the user that the installation failed with the option to Start Over (Snapshot 2). After reconnecting, you will see Snapshot 1. If the calibration recovery does not work, the user can choose to Share the Recovery Files and use INSITE to recover. At this point, in both cases, the module is up to date, but few parameters failed to restore.





Snapshot 2





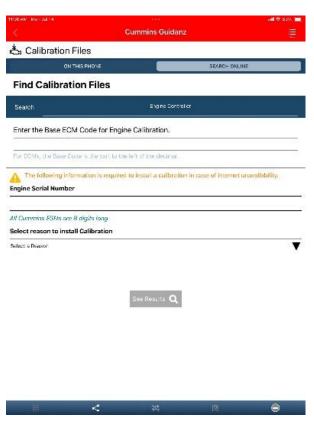


#### SECURE CALIBRATION MANAGEMENT FOR OFFLINE INSTALLATION

When technicians know they'll be working in a location without internet access, GDTK Mobile provides a way to get pre-authorization for engine recalibrations ahead of time. To begin the process, the technician must enter the Engine Serial Number (ESN) into the system. After that, they need to select the appropriate reason for the calibration from a predefined list. The valid reasons include: Revision Update or ROM-Booted, Campaign, Temporary Repair Procedure, Account Team Coverage, Uprate, Technical Service Bulletin (TSB), or a Seeded ECM.

Once the reason is selected, clicking the "Search" button will validate the entered information. If everything checks out, the system will grant approval to perform the calibration when the technician arrives at the site. This ensures that the recalibration can be completed even without an internet connection, as long as the pre-authorization was obtained in advance.





## ADVANCED FEATURES

Clicking on Advanced Features on the ECM Device Dashboard the user is taken to the Advanced Features screen where the user can see the supported Advanced Features. User can also manage Advanced Features by adding them to the Favorites list.

### **DIAGNOSTIC TESTS**

Clicking on Diagnostic Tests on the ECM Device Dashboard the user is taken to the Diagnostic Tests screen where the user can see all the diagnostic tests implemented in the Mobile App and supported by the calibration.





Figure 0-37 Diagnostic Test container page

## **INSTRUCTIONS**

Each individual Diagnostic Test includes its own set of instructions. Some tests require the engine to be running, others require just a Key-on. Please follow the instructions for the specific Diagnostic Test to ensure the test performs as expected.



Figure 0-38 Diagnostic Test instructions



## STARTING/STOPPING

The user can go to the diagnostic test controls screen by clicking on the red button in the Chyron.

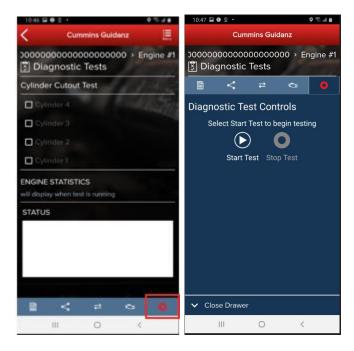


Figure 0-39 Diagnostic Test Start/Stop button.

## **RESULTS**

Most Diagnostic Tests include a status box to display the status of the test being performed. For the user to better monitor the test progress during the diagnostic session, a user can pop out the Status box either by clicking on the pop out icon next to Status or on the Pop out status icon on the right-hand bottom of the screen.



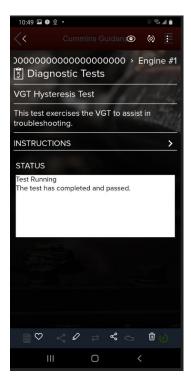
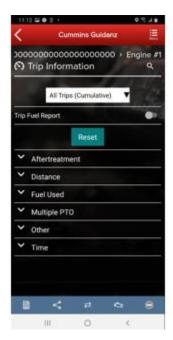


Figure 0-40 Diagnostic Test status messages

## TRIP INFORMATION

Clicking Trip Information on the ECM Device Dashboard the user is taken to the Trip Information screen. The trip information screen gives details such as Fuel used, Distance travelled, and engine running hours.



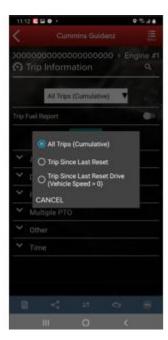


Figure 0-41 Trip Information screen.



#### TRIP INFORMATION RESET

When required or requested, the Trip Information can be reset to default by selecting the "Reset" button.

#### **IMAGES & TEMPLATES**

Clicking on Images & Templates on the ECM Device Dashboard the user is taken to the Images and Templates screen where the user can manage available Images or Templates. Clicking on Images shows all captured images for the connected ESN. Images will inform the user if they are "Initial," "User created," or "Final." User can also search the Images or change the Sort order.

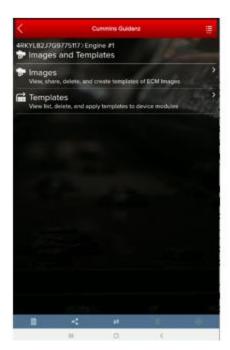




Figure 0-42 ECM Images and Templates screen.

#### **IMAGES**

Clicking on the three dots on the left-hand side of the ECM image allows the user to Convert to Template, Share EIF File, export to .CSV and Delete the File. Clicking on an image row allows the user to connect to the ECM image. If the user is currently connected to an Engine, they will be disconnected to connect to the ECM Image.



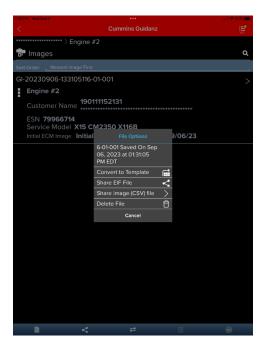


Figure 0-43 ECM Image screen.

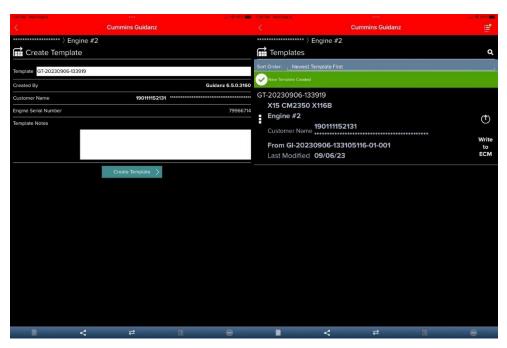


Figure 0-44 ECM Image conversion to Template

## **SEARCHING**

Users can also search for specific ECM images from the toolbar by selecting the magnifying glass icon.



#### SHARING

To send an image to another user, in History and Templates click on Images. Go to the image user wants to share. Click on the three dots to the left of the image. Select Share EIF File. Select the default email client to send to another user.

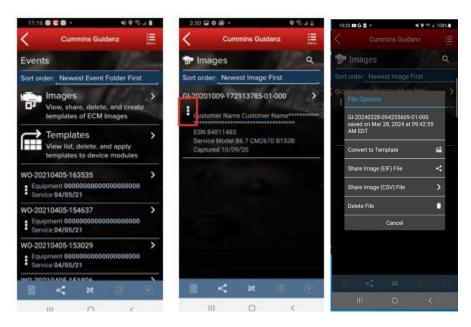


Figure 0-45 Sharing an Image file.

#### **EXPORTING**

Users can export Image files in EIF or .CSV file format to share with other Guidanz Diagnostic Toolkit or Insite users. After successfully exporting the image, users will be given the option to select the application or program they would like to use to share the file (email, Teams, etc.)

## **IMPORTING**



To receive an image to import into Guidanz Mobile app, open an email client. Select the email and click on the image in eif format. If available, click on Copy to Guidanz, or search for the app through More options to import the user is then asked to Import.

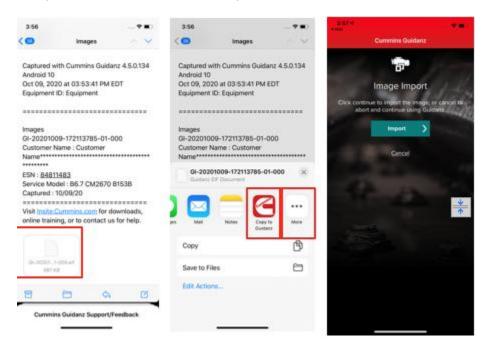


Figure 0-46 Importing ECM Images.





Figure 0-47 Importing ECM Images cont.

**TEMPLATES** 



When user selects to convert image to template, user can change template name and enter template notes.

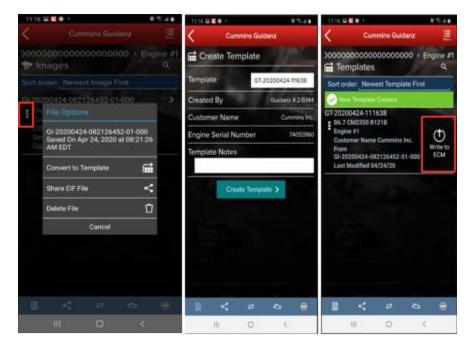


Figure 0-48 Template creation

## WRITING TEMPLATE TO ECM

Templates can be written to an ECM to quickly change multiple device settings to a predetermined value. Selecting the Write to ECM icon from the Template page will begin the process.

## **AUDIT TRAIL**

Clicking on Audit Trail on the ECM Device Dashboard the user is taken to the Audit Trail screen where the user can see the audit trail of the connected ECM. Clicking on one of the Audit Trail records will give detailed information on the tool used and the changes made to the connected ECM.





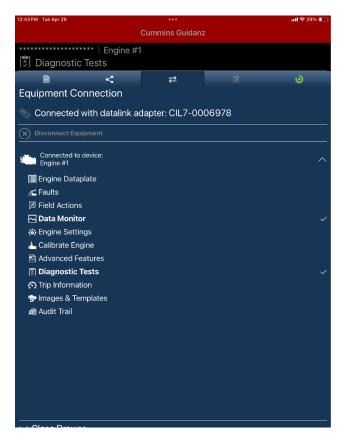
Figure 0-49 Audit Trail Screen

## FEATURE IN PARALLEL

Feature in parallel allows users to perform multiple functions simultaneously in the app. For example, users can run a diagnostic test while also creating a DML recording of parameters.

To access Features in Parallel, while connected to a vehicle, select the connection icon from the bottom of the screen, and use the drop-down menu to open the second desired feature.





## IMMEDIATE ASSESSMENT (IA) SUBSCRIPTION

#### SUBSCRIPTION FUNCTIONALITY

Immediate Assessment subscriptions allow users the below functionality.

- •Prioritized Cummins fault codes, descriptions, and the top three most likely root causes
- •Estimated service times
- •Ability to update Guidanz Service Event Management Appointments
- •Enter ESN and customer information
- Select manufacturer and model
- •Equipment and device data plate information
- Create, View, Resume, Delete Events
- •Create a Guidanz Service Event Management Job
- •J1939 Device Fault
- Campaign Calibration installation capability
- •"Scan Fault" which is a focused function that can be used to just read the faults from the engine without any fault prioritization.
- •The ability to share any information in the app via email



When clicking on New Assessment, user connects to the truck via the Data link Adapter. The Guidanz pulls up Engine Serial Number, and Customer Name from ECM, and the user can edit them if they are incorrect. Based on the confirmed ESN, the equipment make and model list is retrieved from the server. Guidanz pre-selects the data received from warranty data on the server and from the ECM if available, but the user must confirm the selection. If there is no manufacturer list, it can be caused by:

- No data based on the ESN provided.
- No Internet
- Server issue

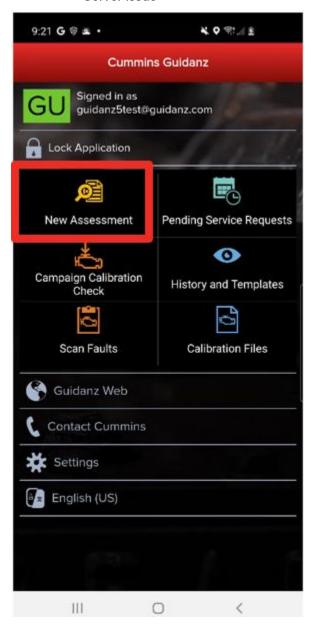


Figure 0-50 New Assessment.

#### INTAKE

During the Intake process, the application will connect to the selected Datalink adapter and pull the vehicle, engine serial number and Customer Name. Users can edit and change this information if they are incorrect.



If the user selects other, they will be prompted to select an accessibility code. Note that the results of FC estimated repair times are more accurate with the correct make/model than with the accessibility code.

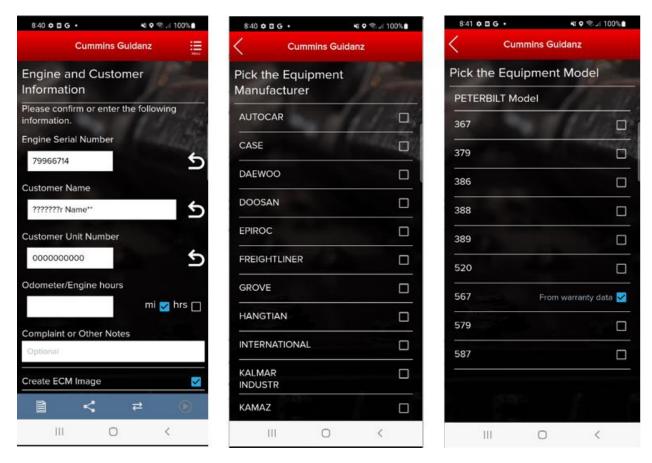
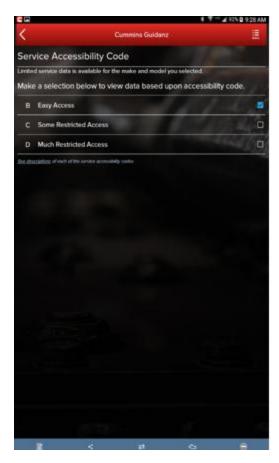


Figure 0-51 New Assessment Intake with Make/Model screen.





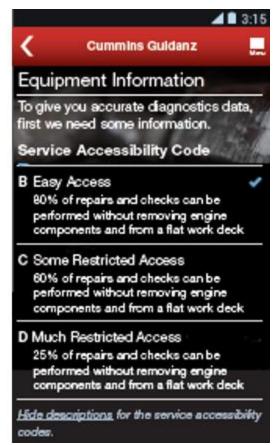


Figure 0-52 Accessibility code selection

#### SEVERITY CODES

On the faults and Analysis screen the app will displays the overall severity code of the engine.



#### CALIBRATION CAMPAIGN

For instructions to update the ECM code, please select: Calibrate Engine.

#### PRIORITIZED FAULTS

Primary Faults are critical faults that should be repaired first. Resolving the primary faults will many times also resolve secondary faults.



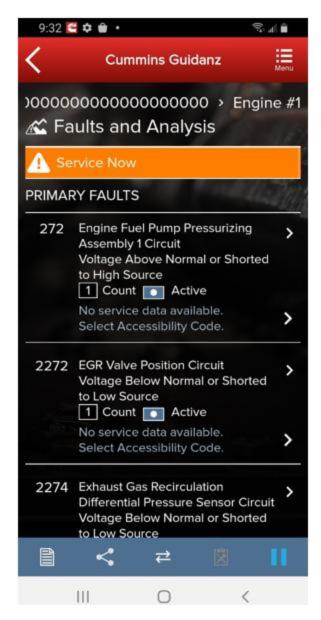


Figure 0-53 Primary prioritized faults and overall engine severity code

## ESTIMATED SERVICE TIMES & FAST TRACK REPAIRS

After the assessment is completed, users will be given estimated service times based on historical data. Note that this information will only be shown if the fault code supports the estimated service time.

Only if an engine has a fault code which is part of Fast Track Repair (formerly known as Analytic Based Repair), user will be notified that there is a Fast Track Repair available for the associated fault code. User will see the associated solution(s).



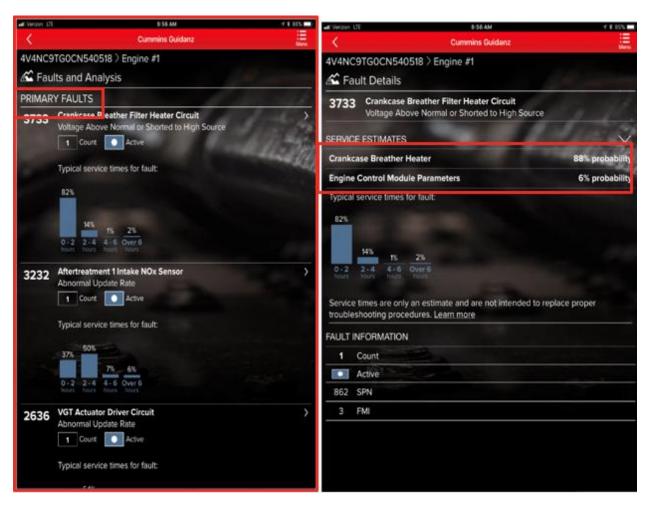


Figure 0-54 Prioritized faults with service times and likely Root Cause.



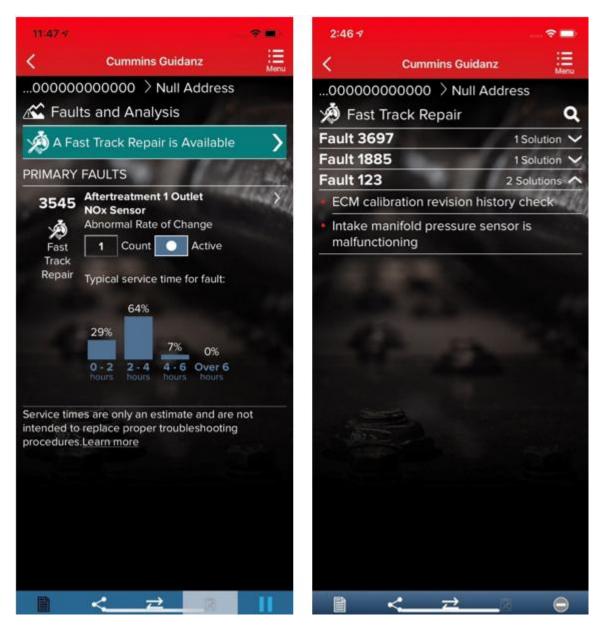


Figure 0-55 Fast Track Repair.

#### **SMART ANALYTICS**

Smart Analytics.

#### CREATING A SERVICE REQUEST FROM IMMEDIATE ASSESMENT

After performing the Immediate Assessment on a new engine, users can create a -- Service request directly from the application.



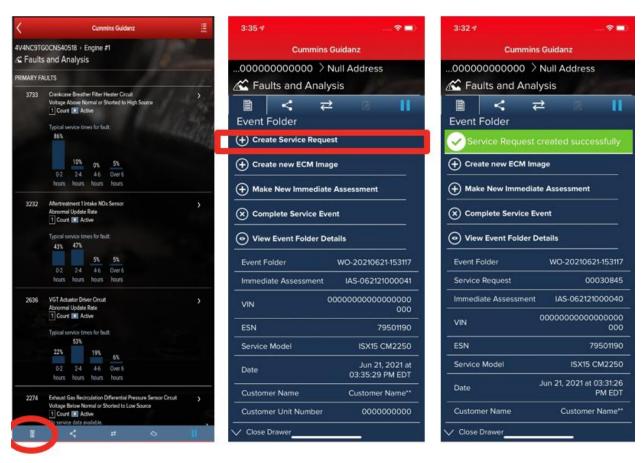


Figure 0-56 Create Service Request from Immediate Assessment

## CREATE A SERVICE REQUEST

## PENDING SERVICE REQUESTS

Users can create an immediate assessment from a pending service request. Pending service requests are created in Guidanz Service Event Management.



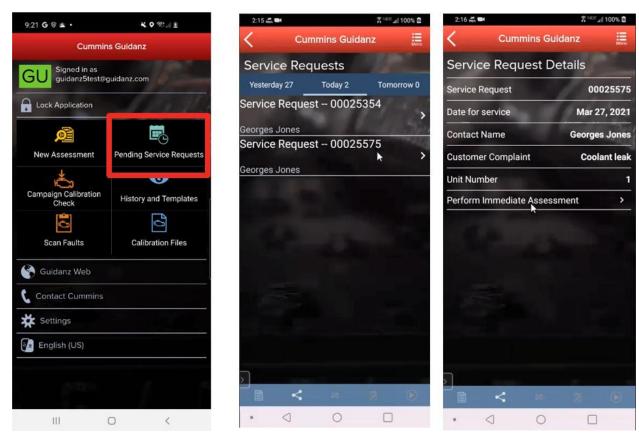


Figure 0-57 Pending Service Request Icon

## SCHEDULE PAGE

Users enabled in Guidanz Service Event Mangement will be able to see appointment from "yesterday, today, and tomorrow" in the Mobile App.



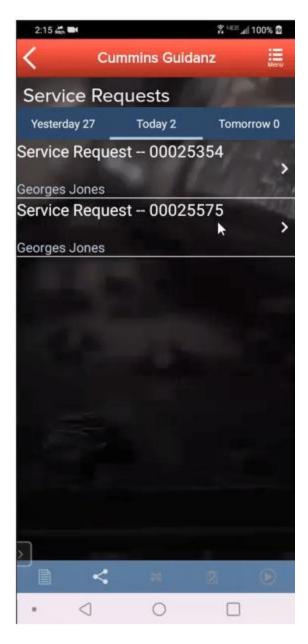


Figure 0-58 Schedule Page

## PERFORMING IMMEDIATE ASSESSMENT FROM A PENDING SERVICE REQUEST

After selecting the correct appointment, users are given the option to perform the Immediate Assessment directly from the appointment screen. Please see <a href="Intake">Intake</a> for complete instructions to perform the immediate assessment.





Figure 0-59 Updating a Service Request.

#### Figure 0-60 Event Folder

## **EVENT FOLDER**

An Immediate Assessment will create an Event Folder. Event Folders can be viewed by clicking on View Events in the Start screen.

Event Folder Details can be viewed by

- clicking on an event in the Event Folders screen
- clicking on the bottom left icon on the chyron







## GUEST/ REGISTERED USER

#### ADAPTER CONNECTION

For Initial Pairing, the adapter has to be put on pairing mode. Hold the reset button at the end of the adapter for about 2-3 seconds. The light on the adapter will flash for about 2 minutes. You have to pair it to the device within that time. For subsequent connections, the device will be able to find the adapter without needing to press the button on the adapter. The adapter can be identified by the last few digits of the s/n on the label.

### INTAKE

During the Intake process, the application will connect to the selected Datalink adapter and pull the vehicle, engine serial number and Customer Name. Users can edit and change this information if they are incorrect.

The intake page also offers the ability to automatically create an ECM image during intake if desired. The default behavior of the "Create ECM Image" checkbox is controlled on the <u>Settings</u> Page.

Based on the confirmed ESN, the equipment make and model list is retrieved from the server. The application pre-selects the data received from warranty data on the server and from the ECM if available. The user will still need to confirm these selections.

If there is no manufacturer list, it can be caused by:



- No data based on the ESN provided.
- No Internet
- Server maintenance or downtime

Please see Intake for additional information.

#### **EQUIPMENT DATAPLATE**

The Equipment Dataplate can be accessed via the Equipment Summary Screen and Engine Dataplate. It contains the information the user enters such as customer name, manufacturer, model, and well as other information.





Figure 0-1 Equipment Dataplate screen

#### **ECM FAULTS**

Selecting Faults on the Device dashboard displays the Faults and Analysis screen (internet connectivity required) with Primary, Related, & Unprioritized faults.

## HISTORY AND TEMPLATES

Event Folders can be viewed by clicking on History and Templates in the Start screen.

Event Folder Details can be viewed by

- clicking on an event in the Event Folders screen
- clicking on the bottom left icon on the chyron



When selecting Scan Faults the user is taken directly to the Equipment Dashboard. No prioritized fault codes will be displayed, and users cannot Reset Faults. An event folder will be created for the session.

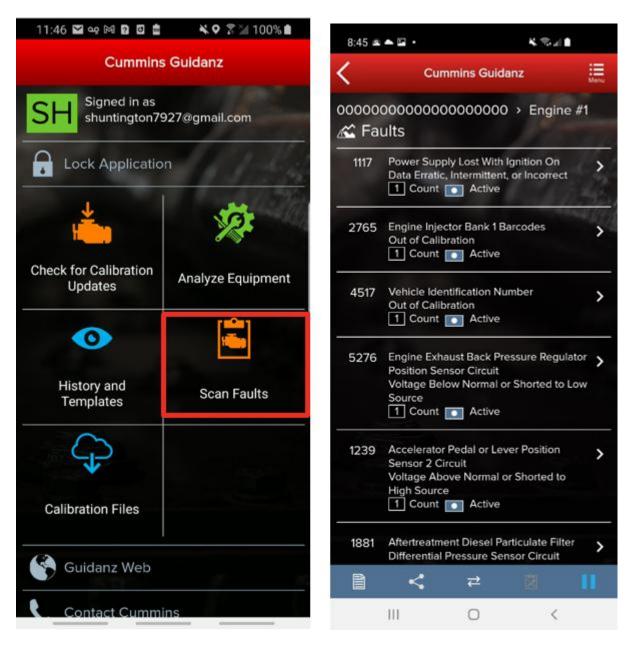


Figure 0-2 Scan Faults.

## CAMPAIGN CALIBRATION INSTALLATION THROUGH ANALYZE EQUIPMENT

During the intake, If Guidanz detects an invalid ESN, the user is prompted to enter a valid ESN



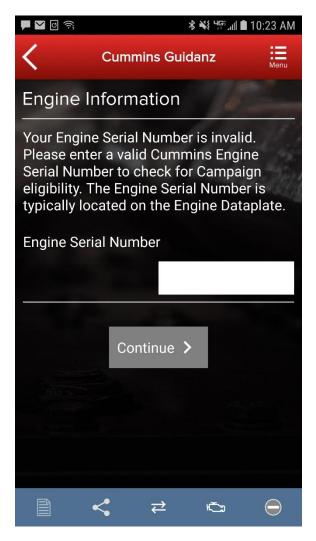


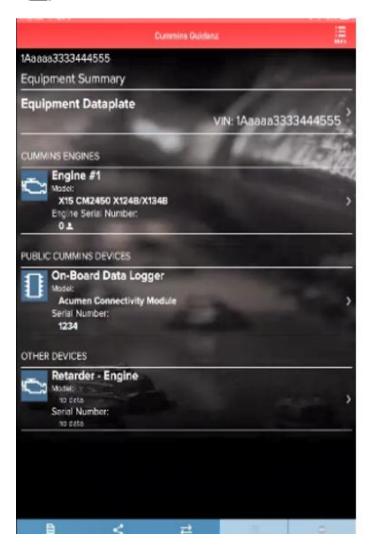
Figure 0-3 ESN Eligibility Check.

For details on updating the calibration revision, please see: Calibrate Engine.

## **ACUMEN ON-BOARD DATA LOGGER**

The ACUMEN On-Board data logger device is supported and allows user to detect and display fault and data plate details, and to monitor data.





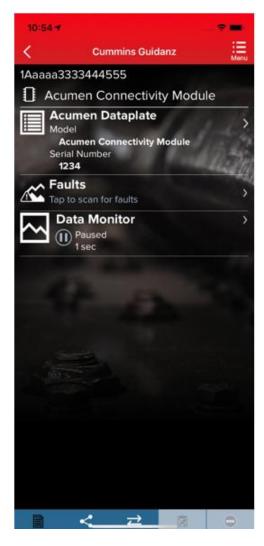


Figure 0-4 Acumen Connectivity module available in the Public Cummins Devices section of Equipment Dataplate.

## QUESTIONS OR ISSUES

#### **PREREQUISITES**

## **REGISTRATION**

- All users must have a valid username and password.
- Users who do not have a valid username and password, can register here.

#### **SUBSCRIPTION**

 Contact your local distributor, under the Software Licensing section below, to register your service location to use Cummins Guidanz Immediate Assessment in the US, EU, or Canada. Non-Distributor employees please contact Cummins Care.

## DATALINK ADAPTERS You will need a compatible datalink adapter.

• <u>INLINE 7</u> is a complete kit for equipment using 9-pin, 6-pin, and 3-pin cables. It supports USB, Wi-Fi, and Bluetooth. It works with INSITE and Guidanz Diagnostic Toolkit Mobile or PC based



- applications (Guest, Service Diagnostics, and Immediate Assessment subscribers). \*Not compatible with Power Generation Controllers.
- Cummins USB Link 3 is the replacement for the Inline 7, and offers all of the same functionality as the original INLINE 7.
- INLINE Mini is a low-cost Bluetooth only datalink adapter that works with only the Guidanz Diagnostic Toolkit Mobile App.
- Please visit INLINE to purchase an official Cummins Data-Link Adapter.

## NON-SUPPORTED EGNINE PROGRAMS

The Guidanz Diagnostic Toolkit Mobile App supports all Cummins J1939 compliant engines. Engines made prior to 2007, or those that use J1708 protocol are not supported.

**Table 1 Non-supported Engine programs** 

Engine Program	ECM	Engine Program	ECM
480C-E	CM552	ISM	CM570
B5.9G	CM420	ISM - CM870	CM870
C Gas Plus/B Gas Plus	CM556	ISM - CM875	CM875
C8.3G	CM420	ISM - Fuel Control Module - CM570	CM570
CELECT	ECM-B	KTA19, G855 CM558 G Drive	CM558
CELECT Plus	ECM-C	L Gas Plus	CM556
CELECT Plus Industrial	ECM-C	L10G	CM420
Centinel	CM400	PIM	CM550
CENTRY	CM400	QSB5.9/44, 5.9/30, 4.5/30, 3.9/30	CM550
Gas Compression GTA3.9/5.9/8.3GC, KTA19/38GC - SSM558/CM556/CM2 358	CM556	QSC8.3/QSL9	CM554
	SSM558		CM500
ISB	CM550	QSK19/23/45/60/78	CM500
ISB - CM850	CM850	QSK19G/38G/60G, QSV81/91 - CM700/SSM558/CM2358	CM700, SSM558
ISB Daimler Chrysler	CM551		CM2358
ISBe (4 and 6 Cylinder)	CM800	QSM11	CM570
ISBe2/3 - CM850	CM850	QST30	CM552
ISBe4 (4 and 6 cylinder)	CM850	QST30 - Power Gen	CM552
ISC / Transit Bus ISL8.3 - CM850	CM850	QSX15	CM570
ISC/ISL	CM554	Signature/ISX	CM570



ISL8.9 - CM850	CM850	Signature/ISX - CM870	CM870
ISLe4 (6 cylinder)	CM850	K19, K38, & K50 Century	CM2940

# CONTACT CUMMINS FOR ADDITIONAL SUPPORT

https://www.cummins.com/support/digital-products-and-services-support