Problem Reading a Controller

EFILive Support - 2023-02-24 - Comments (0) - GM Help

Trouble Shooting

Should users encounter problems with the EFILive software, FlashScan or AutoCal hardware they should:

1. Confirm software, firmware and boot block versions are up to date. https://www.efilive.com/download-efilive
2. E86A, E86B and E47 files cannot be read from the ECM. Refer to Controller Read Restrictions.
3. LBZ/LMM DSP5 tune files cannot be read from the ECM. Refer to Controller Read Restrictions.
4. Check that checksums are valid.
5. Check controller selection.
6. Check the base file matches the calibration for your vehicle.
7. Check to see if the NVRAM in the ECM is functional.
8. Non-EFILive Custom Operating Systems tune files cannot be edited using EFILive software. Please obtain a stock file for editing purposes. Refer to Unsupported GM Gas Operating systems.
9. Remove/isolate all after-market devices including mobile phone adapters, after-market equipment (audio systems, security, remote start etc.) and any devices wired into the OBD port that may interfere with vehicle communications. In some situations it may be necessary to pull specific vehicle fuses, or in extreme cases use an off-board programming harness to read or flash the controller.
10. DO NOT operate any vehicle feature that may communicate on the data bus. This includes opening or closing of hood, doors, windows, as well as changing settings on radio, HVAC, connecting/removing charging devices etc.

Error message: $0537 Controller is Locked with a Custom Key

Please refer to the GM Controller Unlocking Help to determine how to unlock the controller.

Error message: $0552 Reading and flashing are not yet authorized for this controller

Please refer to GM Controller Authorization to negotiate reading the controller.

Read Block - E35A & E35B

A previous tuner may have prevented access to the controller by applying the [Block ECM Calibration Reading] parameter to a E35A and E35B tune file prior to flashing the controller. In these instances the controller cannot be read, but you may flash the controller.

Error Codes

If an error occurs while using EFILive hardware and/or software, users can look up the error code description in the EFILive V8 Scan and Tune software.

The [F8: Tools] -> [F8: Error Codes] menu item provides an error code lookup function, and the “EFILive Error Codes.pdf” document accessed by selecting the Windows Start Icon and navigating to Program Files->EFILive->V8->Documents->EFILive Error Codes.pdf is also available. Both options provide error code descriptions, causes and actions.

Should the issue not be resolved after reviewing the Error code list, end users should contact their Tuner for support.

Checksums

Checksums perform a vital role in ensuring the integrity of the data in the tune file. There are two main reasons that checksums display as invalid:

1. The data in the file is corrupt and MUST NOT be flashed into a controller.
2. The data in the file has been modified with a software package that did not update the checksums – such as a hex editor.

Do not correct the checksums unless you know the tune file was modified outside of the EFILive software and that the modifications are correct and accurate.

If you correct the checksums of a file with corrupt data you are merely masking corruption. If you flash a corrupt file into a controller, you risk damaging the controller and/or causing the vehicle to operate incorrectly.

NVRAM STATUS

Where the NVRAM area of the ECM is corrupted the vehicle may still run, however the tune file cannot be read or flashed. Typically where the VIN, Serial number, Hardware number and/or calibration ID do not contain valid data, the controller will need to be repaired to restore read and flash functionality. Please refer to the NVRAM Status article for further information.

Check Controller Selection

When performing a read operation it is necessary to ensure that the correct **Controller** has been selected. If the controller selection is incorrect this will result in a failed attempt or in some instances a report that the may be locked (due to the bootloader not being executed).

Follow these steps to ensure the controller selection is correct.

1. Connect your **FlashScan** or **AutoCal** device to your PC and vehicle.
2. Open the **EFILive V8 Scan & Tune** application.
3. Click on the **[F3: Tune]** menu and select the **[F2: Read]** menu option.
4. In the **Controllers:** field select Auto Detect. A picture of the currently selected controller is shown to assist in identification.
5. Click the **Read** button to initiate the read operation.

Test for Rogue Modules

For Customers with **FlashScan/AutoCal V3** a range of test modes to check the network for rogue modules that may cause read or flash operations to abort are available.

Navigate to the **Tune Tool -> F1: Tuning -> F4: Test OBD Network** menu. The following test options are available:

1. Test CAN J1979 option for CAN based controllers.
2. Test VPW 1x Speed option for VPW based controllers to test the network at normal speed, i.e. data logging speed.
3. Test VPW 4x Speed option for VPW based controllers to test the network at the speed used to read or flash a controller.

Further Support

If all of the above have been attempted and issues still persist; please create a Support Ticket and include as much information as possible. Be sure to locate and attach your Trace Files.

Related Content

- Pass-Thru Read a Controller
- V3 Read a Controller
- FlashScan V2 Read a Controller
- AutoCal V2 Read a Controller
- LB7 & LLY Tips and Tricks
- V8 Trace Files
- V3 Trace Files
- FlashScan V2 Trace Files
- AutoCal V2 Trace File
- Controller Read Restrictions
- NVRAM Status - GM Gas & Diesel