



EFILive Error Codes

Paul Blackmore

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Table Of Contents

EFILive USB driver Error Codes (\$0001..\$001F)	4
EFILive HAPI Error Codes (\$0020..\$007F)	6
Boot Error Codes (\$0080..\$00BF)	9
Flash Memory Error Codes (\$00C0..\$00CF)	12
Operating System Error Codes (\$00D0..\$00FF)	13
USB Error Codes (\$0100..\$017F).....	14
FAT32 Flash File System Error Codes (\$0180..\$01BF).....	16
FAT32 Flash File System Error Codes (\$01C0..\$01FF).....	19
For FlashScan V3 and AutoCal V3	19
File Transfer Link Error Codes (\$0200..\$027F).....	21
OBD Error Codes (\$0280..\$02FF)	22
Controller Error Codes (\$0300..\$03FF)	25
SD Card Error Codes (\$0400..\$047F)	31
Black Box Logging/Flashing Error Codes (\$0480..\$04FF)	33
Reading/Flashing Error Codes (\$0500..\$05FF).....	34
Reading/Flashing Error Codes (\$0600..\$06FF).....	47
Scanning Error Codes (\$0700..\$07FF).....	49
Lua Tune Script Error Codes (\$0800..\$09FF).....	50
BBX Configuration Codes (\$0A00..\$0A7F)	53
Internal Error Codes (\$0A80..\$0AFF)	56
Cryptographic Error Codes (\$0B00..\$0B7F)	57

EFILive USB driver Error Codes (\$0001..\$001F)

Error	Description	Cause	Action
\$0001	USB internal driver error (invalid handle)	Internal	Contact EFILive if this error persists.
\$0002	USB device is not connected	FlashScan or AutoCal is not connected to the PC's USB system.	Connect FlashScan or AutoCal to the PC using a USB cable.
\$0003	USB device is not open	Internal	Contact EFILive if this error persists.
\$0004	USB I/O error	Internal	Contact EFILive if this error persists.
\$0005	USB insufficient resources	Internal	Contact EFILive if this error persists.
\$0006	USB invalid parameter	Internal	Contact EFILive if this error persists.
\$0007	USB invalid baud rate	Internal	Contact EFILive if this error persists.
\$0008	USB device not open for erase	Internal	Contact EFILive if this error persists.
\$0009	USB device not open for write	Internal	Contact EFILive if this error persists.
\$000A	USB write error	Internal	Contact EFILive if this error persists.
\$000B	USB EEPROM read error	Internal	Contact EFILive if this error persists.
\$000C	USB EEPROM write error	Internal	Contact EFILive if this error persists.
\$000D	USB EEPROM erase error	Internal	Contact EFILive if this error persists.
\$000E	USB EEPROM not present	Internal	Contact EFILive if this error persists.
\$000F	USB EEPROM not programmed	Internal	Contact EFILive if this error persists.
\$0010	USB invalid argument	Internal	Contact EFILive if this error persists.
\$0011	USB device not supported	Internal	Contact EFILive if this error persists.
\$0012	USB Unknown error	Internal	Contact EFILive if this error persists.
\$0013	Too many nested USB hubs	More than 5 USB hubs have been daisy chained together.	EFILive recommends connecting FlashScan or AutoCal directly to your PC.
\$0014	Device information could not be retrieved	Internal	Contact EFILive if this error persists.

\$0015	Interface information could not be retrieved	Internal	Contact EFILive if this error persists.
\$0016	Pipe information could not be retrieved	Internal	Contact EFILive if this error persists.
\$0017	Unhandled pipe type	Internal	Contact EFILive if this error persists.
\$0018	Descriptor information could not be retrieved	Internal	Contact EFILive if this error persists.





EFILive HAPI Error Codes (\$0020..\$007F)




Error	Description	Cause	Action
\$0020	EFILive USB driver DLL not loaded	Internal	Contact EFILive if this error persists.
\$0021	EFILive USB driver DLL function not defined in loaded DLL	Internal	Contact EFILive if this error persists.
\$0022	EFILive USB driver request timed out	EFILive_Hapi is busy serving another program.	Close down other programs that may be using FlashScan or AutoCal.
\$0023	File not found	When attempting to reprogram the boot block or firmware in FlashScan or AutoCal, the file containing the new boot block or firmware could not be opened.	Check that the boot block or firmware files exist and that EFILive_Hapi has permission to read them. The files should be located in \Program Files (x86)\EFILive\V8\Firmware.
\$0024	EFILive_Hapi is not running	A program attempting to communicate with FlashScan or AutoCal tried to start EFILive_Hapi but could not.	Make sure the EFILive_Hapi.exe file exists in \Program Files (x86)\EFILive\V8, and that it can be started by double clicking on it.

\$0025	Can't get semaphore for control of EFILive_Hapi	Multiple applications attempted to communicate with FlashScan or AutoCal simultaneously.	<p>Usually each message to/from FlashScan or AutoCal only takes a few tenths of a second so messages from multiple applications can usually be handled transparently by queueing the messages for a few tenths of a second.</p> <p>When a long running command (like updating the firmware) is in progress, waiting a few tenths of a second will not usually resolve the conflict and the attempt ultimately fails.</p> <p>After receiving this error it is recommended that you wait for the other application to complete its task, then re-do, re-fresh or re-start whatever task you were attempting.</p> <p>In rare circumstances it may be necessary to use Windows Task Manager to end the EFILive_Hapi.exe process.</p> <p>In ever rarer circumstances, if the USB driver has failed then it may not be possible to end the EFILive_Hapi.exe process, in that case unplugging all FlashScan and AutoCal devices may resolve the problem, otherwise rebooting the computer may be the only option.</p>
\$0026	Request was ignored - i.e. reply cmd<>send cmd	An unexpected reply was received from FlashScan or AutoCal.	<p>Retry the operation that failed.</p> <p>Contact EFILive if this error persists.</p>
\$0027	Device is not enabled	Internal	Contact EFILive if this error persists.
\$0028	Device is currently being programmed	A program has attempted to communicate with FlashScan or AutoCal while it is being updated with new boot block or firmware.	Wait until the reprogramming has completed and try again.
\$0029	Device is NOT currently being programmed	Internal	Contact EFILive if this error persists.
\$002A	Can't create semaphore for control of EFILive_Hapi	Internal	Contact EFILive if this error persists.

\$002B	Can't create shared memory for control of EFILive_Hapi	Internal	Contact EFILive if this error persists.
\$002C	Too many processes connected to EFILive_Hapi	Internal	Contact EFILive if this error persists.
\$002D	Windows error	Internal	Contact EFILive if this error persists.
\$002E	EFILive_Hapi did not start	Internal	Contact EFILive if this error persists.
\$002F	Device not connected	The FlashScan or AutoCal device is not connected via the USB cable to the PC.	Connect FlashScan or AutoCal to the PC via the USB cable.
\$0030	The application and EFILive_Hapi versions are not compatible.	Mismatched application and EFILive_Hapie.exe files are installed.	Reinstall EFILive V8. Contact EFILive if this error persists
\$0031	EFILive_Hapi did not start; EFILive_Hapi.exe not found.	Windows cannot locate the EFILive_Hapi.exe file. It should be installed into the EFILive V8 "Program Files" folder.	Reinstall EFILive V8. Contact EFILive if this error persists
\$0032	EFILive_Hapi did not start; EFILive_Hapi.exe not found.	Windows cannot locate the path to the EFILive_Hapi.exe file. It should be installed into the EFILive V8 "Program Files" folder.	Reinstall EFILive V8. Contact EFILive if this error persists
\$0033	EFILive_Hapi did not start; EFILive_Hapi.exe is invalid (non-Win32 .exe or error in .exe image).	The EFILive_Hapi.exe file has been corrupted.	Reinstall EFILive V8. Contact EFILive if this error persists
\$0034	EFILive_Hapi did not start; the operating system denied access to EFILive_Hapi.exe.	The application does not have permission to start and run the EFILive_Hapi.exe program.	Reinstall EFILive V8. Contact EFILive if this error persists
\$0035	Hapi object is in use by another thread.	Two threads tried to issue commands via HAPI simultaneously. Only one thread was successful. The other thread received this message.	Stop all other activities such as reading, flashing or scanning and retry the failed operation.
\$0036	Operation is not supported on with a Scan Only license.	An attempt was made to license or reprogram a controller using a Scan Only FlashScan or AutoCal device.	Purchase the required tuning license via EFILive's online web store at www.efilive.com .

Boot Error Codes (\$0080..\$00BF)

Error	Description	Cause	Action
\$0081	<p>RAM failure.</p> <p>Indicated by the following flashing LED's on FlashScan's front panel.</p> 	<p>Each time FlashScan or AutoCal is powered up, it tests its external RAM chip. If that test fails then the RAM chip is faulty.</p>	<p>Return FlashScan or AutoCal to EFILive for repair.</p>
\$0082	<p>Boot block is not present or corrupt.</p> <p>Indicated by the following flashing LED's on FlashScan's front panel.</p> 	<p>Internal</p>	<p>Contact EFILive if this error persists.</p>
\$0083	<p>Boot block is the wrong size</p>	<p>Internal</p>	<p>Contact EFILive if this error persists.</p>
\$0084	<p>Boot block CRC is incorrect.</p> <p>Indicated by the following flashing LED's on FlashScan's front panel.</p> 	<p>Each time FlashScan or AutoCal is powered up, it tests the internal boot block software for consistency. If that test fails the device will not operate correctly.</p>	<p>Return FlashScan or AutoCal to EFILive for repair.</p>
\$0085	<p>Application firmware is not present or corrupt.</p> <p>Indicated by alternately flashing orange LEDs on FlashScan's front panel.</p> 	<p>Each time FlashScan or AutoCal is powered up, it tests the firmware for consistency. If that test fails the firmware is invalid.</p> <p>See Dead-poll Mode below.</p>	<p>Reprogram the firmware.</p> <p>Contact EFILive if this error persists.</p>

\$0086	<p>Application Internal Flash CRC is incorrect. Indicated by alternately flashing orange LEDs on FlashScan's front panel.</p> 	<p>Each time FlashScan or AutoCal is powered up, it tests the flash chip for consistency. If that test fails the flash chip may have failed. See Dead-poll Mode below.</p>	<p>Reprogram the firmware. Contact EFILive if this error persists.</p>
\$0087	<p>Application External Flash CRC is incorrect. Indicated by alternately flashing orange LEDs on FlashScan's front panel.</p> 	<p>Each time FlashScan or AutoCal is powered up, it tests the CPU's flash memory for consistency. If that test fails the CPU's flash memory may have failed. See Dead-poll Mode below.</p>	<p>Reprogram the firmware. Contact EFILive if this error persists.</p>
\$0088	<p>Application Internal and External Flash CRC are incorrect. Indicated by alternately flashing orange LEDs on FlashScan's front panel.</p> 	<p>Both \$0086 and \$0087 errors occurred simultaneously. See Dead-poll Mode below.</p>	<p>Reprogram the firmware. Contact EFILive if this error persists.</p>
\$0089	<p>Application Internal firmware is the wrong size</p>	<p>Internal</p>	<p>Contact EFILive if this error persists.</p>
\$008A	<p>Application External firmware is the wrong size</p>	<p>Internal</p>	<p>Contact EFILive if this error persists.</p>
\$008B	<p>Attempted to erase or reflash non-existent flash memory</p>	<p>Internal</p>	<p>Contact EFILive if this error persists.</p>
\$008C	<p>License details have not been programmed yet</p>	<p>The FlashScan or AutoCal device was not programmed with license information during manufacturing.</p>	<p>Contact EFILive if this error persists.</p>
\$008D	<p>Attempted to erase or reflash protected flash memory</p>	<p>Internal</p>	<p>Contact EFILive if this error persists.</p>

\$008E	Attempt to overwrite firmware with an older version	Firmware can only be upgraded to a later version; it can never be downgraded to a previous version.	Only attempt to program the current or later firmware into the FlashScan or AutoCal device.
\$008F	Hardware is not licensed	The FlashScan or AutoCal device was not programmed with license information during manufacturing.	Contact EFiLive if this error persists.
\$0090	Firmware and boot block are not compatible	The boot block and the firmware must have the same first two digits of their version number.	Reprogram the firmware to match the boot block.
\$0091	Device did not re-boot after firmware update	The firmware reprogramming may have failed.	Reboot FlashScan or AutoCal. If the device reboots successfully then there is no fault. If the device boots into dead-poll mode, then reprogram the firmware. Contact EFiLive if this error persists.
\$0092	CPU memory access fault, data not WORD aligned.	Access to RAM and/or flash memory must be made on a 16-bit WORD boundary. The CPU has trapped a non-aligned address instruction.	Contact EFiLive if this error persists.
\$0093	Incorrect boot block for target device.	An attempt was made to program FlashScan's boot block file into an AutoCal device or vice versa.	Ensure that the boot block file is the correct type for the target device.

Dead-poll Mode

Both FlashScan and AutoCal can execute in what is known as dead-poll mode. Dead-poll mode is a special mode that allows FlashScan and AutoCal to be reprogrammed. Dead-poll mode is indicated by alternately flashing orange LEDs (FlashScan) or flashing LCD backlight (AutoCal).

When you attempt to reprogram FlashScan or AutoCal the reprogramming software automatically requests dead-poll mode. However, sometimes it is not possible for the reprogramming software to request dead-poll mode, so a manual override is available. To manually select dead-poll mode, hold down the Ctrl key (FlashScan) or the Ok key (AutoCal) while connecting USB cable. (I.e. while booting the device)

Dead-poll may be automatically selected by FlashScan or AutoCal if they detect that their firmware is missing or corrupt (I.e. errors \$0085 to \$0088).

Flash Memory Error Codes (\$00C0..\$00CF)

Error	Description	Cause	Action
\$00C1	Operating error	Internal	Contact EFILive if this error persists.
\$00C2	Sequence error	Internal	Contact EFILive if this error persists.
\$00C3	Protection error	Internal	Contact EFILive if this error persists.
\$00C4	External flash erase error	Internal	Contact EFILive if this error persists.
\$00C5	External flash write error	Internal	Contact EFILive if this error persists.
\$00C6	External flash was not erased correctly	Internal	Contact EFILive if this error persists.
\$00C7	Flash memory was not written correctly	Internal	Contact EFILive if this error persists.
\$00C8	Flash memory block is full	Internal	Contact EFILive if this error persists.

Operating System Error Codes (\$00D0..\$00FF)

Error	Description	Cause	Action
\$00D1	No Space	An internal queue or other storage area is full and cannot accept any more data.	Contact EFILive if this error persists.
\$00D2	Not Acquired	A resource could not be acquired exclusively because it is already in use.	Contact EFILive if this error persists.
\$00D3	Timed Out	Waiting for a specific event took too long.	Contact EFILive if this error persists.
\$00D4	Unhandled	A specific mode or result was not expected and no handler is available to process the result.	Contact EFILive if this error persists.
\$00D5	Driver Error	Hardware driver failure.	Contact EFILive if this error persists.
\$00D6	Resource not open	Internal	Contact EFILive if this error persists.

USB Error Codes (\$0100..\$017F)

Error	Description	Cause	Action
\$0100	No USB connection	USB cable is faulty or not connected	Check USB cables, plugs and connections. Try using a different USB port and/or different USB cable.
\$0101	No data received	<p>USB cable is faulty or not connected.</p> <p>In rare circumstances the PC operating system or the EFILive software may be malfunctioning.</p> <p>In even rarer circumstances the FlashScan or AutoCal device's USB circuitry may have been damaged. That damage occurs when the laptop is powered by a voltage inverter supplied from the vehicle's battery.</p> <p>A power inverter must never be used to power the laptop while it is connected via FlashScan or AutoCal to the vehicle.</p>	<p>Check USB cables, plugs and connections.</p> <p>Try using a different USB port and/or different USB cable.</p> <p>Try rebooting the PC/laptop.</p> <p>Try using a self-powered USB hub between the PC/laptop and FlashScan or AutoCal.</p> <p>Try re-installing EFILive software which also re-installs the USB drivers.</p> <p>Update the firmware on your FlashScan or AutoCal device, if an update exists.</p>
\$0102	Transmit buffer is full	Internal	Contact EFILive if this error persists.
\$0103	Received data message had no CRC data	Internal	Contact EFILive if this error persists.
\$0104	Bad CRC on received data	Internal	Contact EFILive if this error persists.
\$0105	Received data contained incorrect number of parameters	Internal	Contact EFILive if this error persists.
\$0106	Received data contained parameters that were out of range	Internal	Contact EFILive if this error persists.
\$0107	Received data message was too short	Internal	Contact EFILive if this error persists.

\$0108	Received data message was too long	Internal	Contact EFILive if this error persists.
\$0109	Received data message contained unknown command group	The firmware on the device is out of date	Use the EFILive Control Panel software to update the firmware to the latest version available.
\$010A	Received data message contained unknown command action	The firmware on the device is out of date	Use the EFILive Control Panel software to update the firmware to the latest version available.
\$010B	Device is locked by user PIN	FlashScan has been locked with a user supplied PIN. That PIN has not been entered correctly since FlashScan was powered up.	Enter the correct PIN If you have forgotten the PIN, send the code displayed on FlashScan's LCD screen to EFILive for recovery.
\$010C	Device is busy (i.e. BBL or Reading/Flashing a tune)	FlashScan or AutoCal is currently being used in pass-thru mode.	Exit from pass-thru mode and retry operation.
\$010D	AutoCal is not yet linked to a FlashScan. See also error \$0535	An attempt was made to copy data files to/from an AutoCal device that has not yet been linked to its parent FlashScan device.	All AutoCal devices must be linked to a parent FlashScan device before files can be copied. Please connect both FlashScan and AutoCal devices and then use the EFILive Control Panel (aka EFILive HAPI) software to perform the link.
\$010E	Firmware block download failed	Internal.	Contact EFILive if this error persists.
\$010F	Invalid cryptographic operation	Internal.	Contact EFILive if this error persists.

FAT32 Flash File System Error Codes (\$0180..\$01BF)

For FlashScan V2 and AutoCal V2

Error	Description	Cause	Action
\$0180	F_NO_ERROR	Internal	Contact EFILive if this error persists.
\$0181	F_ERR_RESERVED_1	Internal	Contact EFILive if this error persists.
\$0182	F_ERR_NOTFORMATTED	The target file system (CONFIG or DATA) is not formatted.	Format the appropriate file system. DATA: Use the on-board setup tools format the DATA file system on both the SD card and the internal memory. CONFIG: Use EFILive_Explorer to format the CONFIG file system.
\$0183	F_ERR_INVALIDDIR	Internal	Contact EFILive if this error persists.
\$0184	F_ERR_INVALIDNAME	Internal	Contact EFILive if this error persists.
\$0185	F_ERR_NOTFOUND	A file or folder was not found.	You may need to copy a required file to FlashScan or AutoCal using EFILive_Explorer. Or you may need to format the target file system, see description for error \$0182 above.
\$0186	F_ERR_DUPLICATED	Internal	Contact EFILive if this error persists.
\$0187	F_ERR_NOMOREENTRY	Internal	Contact EFILive if this error persists.
\$0188	F_ERR_NOTOPEN	Internal	Contact EFILive if this error persists.
\$0189	F_ERR_EOF	Internal	Contact EFILive if this error persists.

\$018A	F_ERR_RESERVED_2	Internal	Contact EFILive if this error persists.
\$018B	F_ERR_NOTUSEABLE	Internal	Contact EFILive if this error persists.
\$018C	F_ERR_LOCKED	Internal	Contact EFILive if this error persists.
\$018D	F_ERR_ACCESSDENIED	Internal	Contact EFILive if this error persists.
\$018E	F_ERR_NOTEMPTY	Internal	Contact EFILive if this error persists.
\$018F	F_ERR_INITFUNC	Internal	Contact EFILive if this error persists.
\$0190	F_ERR_CARDREMOVED	SD card has been removed.	Insert the SD card
\$0191	F_ERR_ONDRIVE	Internal	Contact EFILive if this error persists.
\$0192	F_ERR_INVALIDSECTOR	Internal	Contact EFILive if this error persists.
\$0193	F_ERR_READ	Internal	Contact EFILive if this error persists.

\$0194	F_ERR_WRITE	<p>Usually this means that the target file system is full.</p> <p>If you are programming BBX configuration data, try reformatting the Config file system using the drop down option on the [Program] button. Then [Program] the BBX configuration data again.</p> <p>If you are copying tune files or a BBX Quick Setup file to the device, check that the SD Card (or FlashScan's or AutoCal's internal memory) has enough free space.</p> <p>If you are reading a tune or black box logging, check that the SD Card (or FlashScan's or AutoCal's internal memory) has enough free space.</p>	<p>Use EFILive Explorer to check for free space on both the [F3: Data Files] and [F9: Config Files] tab pages. Click the [Properties] button to display free, used and bad space for the file system.</p> <p>In rare circumstances, this error may also mean that there is a physical fault with the underlying flash memory hardware or SD Card being used to host the target file system.</p> <p>Contact EFILive if this error persists.</p>
\$0195	F_ERR_INVALIDMEDIA	Internal	Contact EFILive if this error persists.
\$0196	F_ERR_BUSY	Internal	Contact EFILive if this error persists.
\$0197	F_ERR_WRITEPROTECT	SD card's write protect tab is locked.	Unlock the SD card's write protect tab.
\$0198	F_ERR_INVFATTYPE	Internal	Contact EFILive if this error persists.
\$0199	F_ERR_MEDIATOOSMALL	Internal	Contact EFILive if this error persists.
\$019A	F_ERR_MEDIATOO LARGE	Internal	Contact EFILive if this error persists.
\$019B	F_ERR_NOTSUPPSECTORSIZE	Internal	Contact EFILive if this error persists.
\$019C	F_ERR_ALLOCATION	Internal	Contact EFILive if this error persists.

FAT32 Flash File System Error Codes (\$01C0..\$01FF)

For FlashScan V3 and AutoCal V3

Error	Description	Cause	Action
\$01C1	V3ERR_Error	Internal	Contact EFILive if this error persists.
\$01C2	V3ERR_Unsupported	Operation not supported	Contact EFILive if this error persists.
\$01C3	V3ERR_AccessDenied	The FlashScan/AutoCal V3 device is currently being used as a Windows USB thumb drive.	De-activate the thumb drive option on FlashScan/AutoCal V3.
\$01C4	V3ERR_InvalidParameter	Invalid parameter specified	Contact EFILive if this error persists.
\$01C5	V3ERR_InvalidDrive	Non-existent drive	Contact EFILive if this error persists.
\$01C6	V3ERR_InvalidPath	Invalid path specified	Contact EFILive if this error persists.
\$01C7	V3ERR_UninitializedDrive	Drive is uninitialized	Contact EFILive if this error persists.
\$01C8	V3ERR_DriverError	Read/write error	Contact EFILive if this error persists.
\$01C9	V3ERR_MediaError	Media error	Contact EFILive if this error persists.
\$01CA	V3ERR_NoMedia	No media or not initialized	Contact EFILive if this error persists.
\$01CB	V3ERR_NoFileSystem	File system is not formatted	Format the appropriate file system. DATA: Use the on-board setup tools format the DATA file system.

\$01CC	V3ERR_NoFreeSpace	No free space available	Delete one or more files from the device to free up space. Contact EFILive if this error persists.
\$01CD	V3ERR_FileNotFound	Requested file or folder was not found	You may need to copy a required file to FlashScan or AutoCal using EFILive_Explorer. Or you may need to format the target file system, see description for error \$01CA above.
\$01CE	V3ERR_DirNotEmpty	The directory is not empty	Contact EFILive if this error persists.
\$01CF	V3ERR_TooManyOpenFiles	Too many open files	Contact EFILive if this error persists.
\$01D0	V3ERR_AlreadyExists	File or directory already exists	Contact EFILive if this error persists.
\$01D1	V3ERR_NotDirectory	Path is not a directory	Contact EFILive if this error persists.
\$01E0	V3ERR_FileNotOpen	File not open	Contact EFILive if this error persists.

File Transfer Link Error Codes (\$0200..\$027F)

Error	Description	Cause	Action
\$0200	Can't open file	Internal	Contact EFILive if this error persists.
\$0201	Permission denied	Internal	Contact EFILive if this error persists.
\$0202	Does not exist	Internal	Contact EFILive if this error persists.
\$0206	Bad file	Internal	Contact EFILive if this error persists.
\$0207	Is too big	Internal	Contact EFILive if this error persists.
\$0210	File system is busy	Internal	Contact EFILive if this error persists.
\$0211	Already exists	Internal	Contact EFILive if this error persists.
\$0214	Is not a directory	Internal	Contact EFILive if this error persists.
\$0215	Is a directory	Internal	Contact EFILive if this error persists.
\$021C	No space	Internal	Contact EFILive if this error persists.
\$0222	Range error	Internal	Contact EFILive if this error persists.

OBD Error Codes (\$0280..\$02FF)

Error	Description	Cause	Action
\$0280	Unsupported protocol (i.e. no vehicle detected)	FlashScan or AutoCal could not detect a valid OBD protocol.	Check all cables and connections. Make sure ignition is turned on to the run position. Make sure the vehicle is supported by EFILive.
\$0281	No data received	FlashScan or AutoCal did not receive valid data from the connected vehicle.	Check all cables and connections. Make sure ignition is turned on to the run position. Make sure the vehicle is supported by EFILive.
\$0282	No such node	Internal	Contact EFILive if this error persists.
\$0283	No such PID	Internal	Contact EFILive if this error persists.
\$0284	Unknown PCI (Protocol Control Information)	Internal	Contact EFILive if this error persists.
\$0285	Incorrect sequence ID	Internal	Contact EFILive if this error persists.
\$0286	CAN, VPW or ALDL handler is busy	Internal	Contact EFILive if this error persists.
\$0287	Dynamic packets are full	Internal	Contact EFILive if this error persists.
\$0288	Response from controller not supported by EFILive	Internal	Contact EFILive if this error persists.
\$0289	PID selection is full	Internal	Contact EFILive if this error persists.

\$028A	OBD command is no longer supported	Internal	Contact EFILive if this error persists.
\$028B	Command Not Implemented	Internal	Contact EFILive if this error persists.
\$028C	Not in pass-thru mode	Internal	Contact EFILive if this error persists.
\$028D	PID configuration mismatch	Internal	A selected PID's definition in the EFILive software does not match the PID definition in the target controller. Remove the offending PID and contact EFILive support so that the PID definition can be corrected.
\$028E	Too many DMA PIDs selected, limit is 24	The scan tool has a built in limit of 24 DMA PIDs only.	Deselect one or more DMA PIDs, i.e. PIDs whose names end with _M until there are 24 or less DMA PIDs selected.
\$028F	Connection Aborted	Internal	Contact EFILive if this error persists.
\$0290	Heavy duty protocol (J1939) not supported	The selected option requires the use of the J1939 heavy duty protocol but the device you are using does not support that protocol.	Red FlashScan and AutoCal devices support the J1939 heavy duty protocol. Please contact your dealer to obtain a red heavy duty FlashScan or AutoCal device.
\$0291	Light/Medium duty protocol (J1979) not supported	The selected option requires the use of the J1979 light/medium duty protocol but the device you are using does not support that protocol.	Blue/Black FlashScan and AutoCal devices support the J1979 light/medium duty protocol. Please contact your dealer to obtain a blue/black light/medium duty FlashScan or AutoCal device.
\$0292	Message too long	A message was received from a controller that was longer than 4KB.	Contact EFILive if this error persists.

\$0293	Message too short	An attempt was made to transmit a message shorter than 8 bytes, using CMTP.	Contact EFILive if this error persists.
\$0294	Not Cleared to Send	A Clear to Send (CTS) message was not received.	Contact EFILive if this error persists.
\$0295	Not acknowledged	An acknowledgement message was not received when expected.	Contact EFILive if this error persists.
\$0296	Invalid acknowledgement	Acknowledgement message did not correctly acknowledge the previous message.	Contact EFILive if this error persists.
\$0297	Invalid CMTP	An invalid or unexpected Connection Management, Transfer Protocol message was received.	Contact EFILive if this error persists.
\$0298	Requested data is not available	No data was received from controller when requesting parameter support status	Contact EFILive if this error persists.
\$0299	Too many PIDs selected	Too many PIDs have been selected.	Reduce the number of selected PIDs.
\$029A	In pass through mode	Device is in pass-thru mode – or was recently use din pass-thru mode.	Wait until pass-thru mode operations have been completed, or switch to stand-alone mode immediately.
\$029B	Data logging stalled	This can happen when logging too many unsupported PIDs. When an entire packet consists of unsupported PIDs then that packet never completes and the logging stalls.	Ensure you are logging the correct controller and that the selected PIDs are all valid.

Controller Error Codes (\$0300..\$03FF)

Error	Description	Cause	Action
\$0301	Data transfer incomplete	The controller did not receive all data that was sent, possibly because the transfer speed was too high.	<p>If the option exists, try using a slower transfer speed.</p> <p>For example, set the “Dodge Cummins Fast CAN Mode to “Standard” if you receive this error while flashing a Cummins light duty controller.</p> <p>Contact EFILive if this error persists.</p>
\$0310	General Reject	The controller rejected the request for unspecified reasons.	Contact EFILive if this error persists.
\$0311	Mode Not Supported	<p>The controller does not support the requested OBD mode.</p> <p>If you receive this error when attempting to start Black Box Logging, try setting the device setting: “Skip PID validation prior to starting Black Box Logging.” (aka “Skip Vfy”). That will prevent \$0311 errors that occur during PID verification from preventing BBL from starting.</p>	Contact EFILive if this error persists.
\$0312	Sub Function Not Supported or Invalid Format	The controller does not support the requested OBD mode’s sub-function.	Contact EFILive if this error persists.
\$0313	Incorrect Message Length Or Invalid Format	The length of the received message does not match the expected length for the specified service.	Contact EFILive if this error persists.
\$0314	Response Too Long	The length of the received message was too large.	Contact EFILive if this error persists.

\$0321	Busy, Repeat Request	A request was made by FlashScan or AutoCal and the controller was too busy to handle the request.	Retry the operation. Contact EFILive if this error persists.
\$0322	Conditions Not Correct or Request Sequence Error	A request was made by FlashScan or AutoCal and the controller was not able or ready to handle the request. This error may occur prior to reading or flashing late model GM controllers (2017+) that use GM's enhanced security, if the supplied key is incorrect.	If you are attempting to read or flash a late model GM controller (2017+), contact your tuner to obtain the correct key for your controller. Retry the operation. Contact EFILive if this error persists.
\$0323	Routine Not Complete	Internal	Contact EFILive if this error persists.
\$0324	Request Sequence Error	The controller received a different sequence of requested messages than expected.	Retry the operation. Contact EFILive if this error persists.
\$0331	Request Out of Range	The controller does not support the requested OBD mode's sub-function's parameter.	Contact EFILive if this error persists.

\$0333	Security Access Denied	<p>The controller has either not been successfully unlocked or has re-armed itself prior to FlashScan or AutoCal making a secure request.</p> <p>Or</p> <p>A Dodge Cummins 2018+ vehicle is fitted with a CAN Security Gateway Module (SGM).</p>	<p>When using V8 pass-thru reading and/or flashing, try selecting “Assume Lock may be Faulty” and “Try Alt Keys” and retry the operation.</p> <p>Dodge Cummins 2018+ vehicles are fitted with a CAN Security Gateway Module (SGM), which needs to be bypassed to facilitate communications with EFILive. It is common for customers to receive error code \$0333 where there is no SGM bypass fitted, or where the SGM bypass is not functional/incorrectly fitted. During the flash routine an additional error message will display saying "Aborting Flash - SGM Detected", this confirms an issue with the SGM bypass method.</p> <p>FlashScan and AutoCal are unable to establish correct communications with the ECM until the SGM is bypassed. Please review the manufacturer’s installation instructions for the SGM bypass and ensure it is correctly fitted.</p>
\$0335	Invalid Key	Controller is locked with a custom key or an incorrect custom key was supplied.	<p>Unlock controller using the correct custom key.</p> <p>When using V8 pass-thru reading and/or flashing, try selecting “Assume Lock may be Faulty” and “Try Alt Keys” and retry the operation.</p>
\$0336	Exceeded Number of Attempts	Too many attempts to unlock a controller.	Cycle ignition and retry the operation.
\$0337	Controller Not Ready, Wait 10sec And Retry	Controller cannot be unlocked within 10 seconds of ignition-on.	Wait 10 seconds after ignition-on before attempting to read or program a controller.

\$0340	Download Not Accepted	For Cummins controllers: Controller contains security to prevent modified tunes being programmed. For other controllers, Internal.	For Cummins controllers: Re-flash ECM with a stock file to make ECM operational again. For other controllers, contact EFILive if this error persists.
\$0341	Incorrect Download Type	Internal	Contact EFILive if this error persists.
\$0342	Cannot Download to Specified Address	Internal	Contact EFILive if this error persists.
\$0343	Cannot Download Number of Bytes Requested	Internal	Contact EFILive if this error persists.
\$0350	Upload Not Accepted	Internal	Contact EFILive if this error persists.
\$0351	Incorrect Upload Type	Internal	Contact EFILive if this error persists.
\$0352	Cannot Upload From Specified Address	Internal	Contact EFILive if this error persists.
\$0353	Cannot Upload Number of Bytes Requested	Internal	Contact EFILive if this error persists.
\$0370	Upload Or Download Not Accepted	An attempt to upload or download to/from memory cannot be achieved due to a fault condition.	Contact EFILive if this error persists.
\$0371	Transfer Suspended	Internal	Contact EFILive if this error persists.
\$0372	Transfer Aborted	Internal	Contact EFILive if this error persists.
\$0373	Wrong Block Sequence Counter	Data transfer block numbers are out of sync to the expected value.	This may be caused by communications interruption happening on the vehicle. Retry the operation. Contact EFILive if this error persists.

\$0374	Illegal Address In Block Transfer	Internal	Contact EFILive if this error persists.
\$0375	Illegal Number of Bytes In Block Transfer	Internal	Contact EFILive if this error persists.
\$0376	Illegal Block Transfer Type	Internal	Contact EFILive if this error persists.
\$0377	Block Transfer Data Checksum Error	Internal	Contact EFILive if this error persists.
\$0378	Request Correctly Received, Response Pending	Internal	Contact EFILive if this error persists.
\$0379	Incorrect Byte Count During Block Transfer	Internal	Contact EFILive if this error persists.
\$037E	Sub Function Not Supported In Active Session	Internal	Contact EFILive if this error persists.
\$037F	Service Not Supported In Active Diagnostic Session	Internal	Contact EFILive if this error persists.
\$0380	Service Not Supported In Active Diagnostic Session	Internal	Contact EFILive if this error persists.
\$0381	Scheduler Full	Internal	Contact EFILive if this error persists.
\$0385	General Programming Failure	One or more conditions occurred during the flash programming that caused the controller to abort the programming process.	Conditions that could abort the flash process include but are not limited to: Low or high battery voltage. Communications failure. Faulty or marginal controller flash memory. Faulty sensors that may incorrectly determine the engine is running, or vehicle is in motion.

\$039A	Data Decompress Failed	Internal	Contact EFILive if this error persists.
\$039B	Data Decryption Failed	Internal	Contact EFILive if this error persists.
\$03A0	ECU Not Responding	Internal	Contact EFILive if this error persists.
\$03A1	ECU Address Unknown	Internal	Contact EFILive if this error persists.
\$03E3	Device Control Limits Exceeded	During DVT (Dynamic Vehicle Testing) (aka bi-directional controls) a request was made to set one or more controls beyond the limits imposed by the controller.	Change the bi-directional control value(s) to an acceptable value.
\$03FE	Data Invalid	Final flash checksum failed at end of download. Usually this is caused by a corrupt data transmission during the flash process.	Retry the flash process.

SD Card Error Codes (\$0400..\$047F)

Error	Description	Cause	Action
\$0401	Unknown SD card error	Internal	Contact EFILive if this error persists.
\$0402	SD card not present	SD Card is not inserted into SD Card slot	Fully insert SD card into SD card slot.
\$0403	SD card not initialized	Internal	Contact EFILive if this error persists.
\$0404	SD card busy	Internal	Contact EFILive if this error persists.
\$0405	SD card is write protected	The SD card's write protect tab is locked.	Unlock the SD card's write protect tab.
\$0406	Error writing to SD card	Faulty SD Card	Replace SD Card
\$0407	Error reading from SD card	Faulty SD Card	Replace SD Card
\$0408	SD card took too long to respond	Faulty SD Card	Replace SD Card
\$0409	Incorrect SD card command parameter	Internal	Contact EFILive if this error persists.
\$040A	Invalid SD card sector address	Internal	Contact EFILive if this error persists.
\$040B	SD card erase sequence error	Internal	Contact EFILive if this error persists.
\$040C	SD card CRC incorrect	Faulty SD Card	Replace SD Card
\$040D	Invalid SD card command	Internal	Contact EFILive if this error persists.
\$040E	SD card erase reset failed	Faulty SD Card	Replace SD Card
\$040F	SD card is still initializing	Faulty SD Card	Replace SD Card

\$0410	SD card took too long to read data	Faulty SD Card	Replace SD Card
\$0411	SD card took too long to acknowledge write request	Faulty SD Card	Replace SD Card
\$0412	SD card took too long to write data	Faulty SD Card	Replace SD Card
\$0413	SD card initialization loop 0 timeout	Faulty SD Card	Replace SD Card
\$0414	SD card initialization loop 1 timeout	Faulty SD Card	Replace SD Card
\$0415	Unrecoverable read error	Faulty SD Card	Replace SD Card
\$0416	Unrecoverable write error	Faulty SD Card	Replace SD Card
\$0417	Unsupported voltage	SD Card operating voltage range is not supported by FlashScan	Replace SD Card with one that operates in the FlashScan supported voltage range of 2.7V-3.3V
\$0418	SD V2.0 pattern mismatch	While attempting to determine if the SD Card supports V1.0 or V2.0 protocols, the verification pattern for CMD8 was inconsistent.	Replace SD Card

Black Box Logging/Flashing Error Codes (\$0480..\$04FF)

Error	Description	Cause	Action
\$0481	Unrecognized *.pmm file	The *.pmm file that was copied to FlashScan or AutoCal when setting up Black Box Logging is corrupt or is not a true *.pmm file.	Re-install (or repair-install) the EFILive V8 software, then click on the [Check Firmware] button in the main V8 Scan and Tune window and perform any updates that are available.
\$0482	*.pmm file is not compatible with the current software/firmware	There is a mismatch between a *.pmm file and the V8 software or the FlashScan or AutoCal firmware.	Re-install (or repair-install) the EFILive V8 software, then click on the [Check Firmware] button in the main V8 Scan and Tune window and perform any updates that are available.
\$0483	*.pmm file has incorrect CRC	The *.pmm file that was copied to FlashScan or AutoCal when setting up Black Box Logging is corrupt or is not a true *.pmm file.	Re-install (or repair-install) the EFILive V8 software, then click on the [Check Firmware] button in the main V8 Scan and Tune window and perform any updates that are available.
\$0484	VIN slot was initialized incorrectly.	Internal.	Contact EFILive if this error persists.
\$0491	*.pmm file has too many PIDs defined in it.	Internal.	Contact EFILive if this error persists.
\$04A1	Attempt to use a device other than FlashScan or AutoCal.	Internal.	Contact EFILive if this error persists.

Reading/Flashing Error Codes (\$0500..\$05FF)

Error	Description	Cause	Action
\$0501	Script file name is too long	Internal	Contact EFILive if this error persists.
\$0502	Script file not found	The script (*.obj) file does not exist on the device.	<p>Ensure that you have selected/programmed the correct controller type(s) in the BBX configuration.</p> <p>Re-install (or repair-install) the EFILive V8 software, then reprogram the BBX configuration to your FlashScan or AutoCal device using the [F5: BBx]->[Program] option.</p>
\$0503	Script file not valid	The script (*.obj) file is corrupt.	Re-install (or repair-install) the EFILive V8 software, then click on the [Check Firmware] button in the main V8 Scan and Tune window and perform any updates that are available.
\$0504	Boot loader file not found	The required boot loader (*.bix) file does not exist on the device.	<p>Ensure that you have selected/programmed the correct controller type(s) in the BBX configuration.</p> <p>Re-install (or repair-install) the EFILive V8 software, then reprogram the BBX configuration to your FlashScan or AutoCal device using the [F5: BBx]->[Program] option.</p>
\$0505	Tune file not found	The required tune file does not exist on the device.	Copy the required tune file to the device.

\$0506	Can't create/save tune file	Target file system is not writable	Check that the target file system (Internal flash or SD Card) is formatted. Check that the write protect switch on the SD Card is not set to locked
\$0507	Operation would cause buffer overflow	Internal	Contact EFILive if this error persists.
\$0508	Script aborted by user	User interrupted script during a read or programming operation	Re-run script, allowing it to complete.
\$0509	Incorrect file open mode	Internal	Contact EFILive if this error persists.
\$050A	Not enough space to save tune file	SD Card or Internal Memory file system does not contain enough free space to save the target controller's tune file image.	Delete one or more files from the affected FlashScan or AutoCal file system.
\$050B	Script file not supported by current firmware version	The script file uses features not available in the current firmware.	Re-install (or repair-install) the EFILive V8 software, then reprogram the BBx configuration to your FlashScan or AutoCal device using the [F5: BBx]->[Program] option.
\$050C	Operation not supported	A read operation was attempted for a controller that does not support reading, or A flash operation was attempted for a controller that does not support flashing.	This error will be displayed if the controller's read or flash script file (*.obj) cannot be found in the device's [Config] file system when performing black box reading or flashing. If the respective operation is documented as being supported for the controller type, try re-programming the device's black box configuration via the [F5: BBX] window.
\$050D	Controller not supported	Internal	Contact EFILive if this error persists.
\$0510	Internal error	Internal	Contact EFILive if this error persists.

\$0511	Unknown op-code	Internal	Contact EFILive if this error persists.
\$0512	Stack underflow	Internal	Contact EFILive if this error persists.
\$0513	Stack underflow	Internal	Contact EFILive if this error persists.
\$0514	Divide by zero	Internal	Contact EFILive if this error persists.
\$0515	Negative response from controller	Internal	Contact EFILive if this error persists.
\$0516	Could not determine flash memory size	Internal	Contact EFILive if this error persists.
\$0517	File memory size and controller memory size mismatch	An attempt was made to flash a 512K file into a 1MB LS1B controller or a 1MB file into a 512K LS1B controller.	Use the correct file size for the target LS1B controller.
\$0520	Cannot open tune file	A tune file that cannot be located to be verified. This usually indicates that the file does not exist on the target file system (SD Card or internal memory).	Re-upload or re-copy the tune file. Check that the target file system is correctly formatted.
\$0521	Cannot read from tune file	The tune file is corrupt.	Re-upload or re-copy the tune file. Check that the target file system is correctly formatted. If this error persists, then discard the tune file
\$0522	Incorrect CRC in tune file.	The tune file has been corrupted.	Re-upload or re-copy the tune file. Check that the target file system is correctly formatted. If this error persists, then discard the tune file

\$0523	Cannot verify length of tune file	While verifying the contents of a tune file, the size of the file is different to the expected file size. This usually indicates that the file has been saved incorrectly.	Re-upload or re-copy the tune file. Check that the target file system is correctly formatted. If this error persists, then discard the tune file
\$0524	Cannot verify contents of tune file	While verifying the contents of a tune the data in the file could not be decoded. This usually indicates that the file has not been saved correctly.	Re-upload or re-copy the tune file. Check that the target file system is correctly formatted. If this error persists, then discard the tune file
\$0525	Tune file is not compatible with firmware	The EFILive software and/or the FlashScan or AutoCal firmware does not recognize the tune file format.	Please make sure the FlashScan or AutoCal firmware is up to date and that the tune file has been created/saved using the latest software.
\$0526	Tune layout is not supported yet.	The EFILive software and/or the FlashScan or AutoCal firmware do not recognize the tune file layout.	Please make sure the FlashScan or AutoCal firmware is up to date and that the tune file has been created/saved using the latest software.
\$0527	Tune file contains a bad controller checksum.	The tune file has been flagged by the EFILive software as having a bad checksum and cannot be flashed into the controller.	Correct the faulty checksum(s) using the V7.5 software. Be sure to read the warning and to understand the implications of correcting checksums.
\$0528	Tune file is not open.	Internal	Contact EFILive if this error persists.
\$0529	Tune file position is not valid.	Internal	Contact EFILive if this error persists.

\$052A	Tune file is encrypted for V3 devices only.	The tune file was encrypted for use with a V3 FlashScan or AutoCal device only.	Contact the tune file supplier and request a version of the file that has been encrypted for use with both a V3 and a V2 FlashScan or AutoCal device.
\$0530	The device license number in the tune file does not match the FlashScan or AutoCal license number.	The author of the tune file has restricted the devices that can be used to flash this file by specifying a device license number in the security settings of the file.	Contact the author of the tune file to obtain a file that can be flashed using the target FlashScan or AutoCal device.
\$0531	Serial number security restriction in *.ctz file does not match controller's serial number.	The author of the tune file has restricted the controller into which this tune file can be flashed by specifying the controller's serial number in the security settings of the file.	Contact the author of the tune file to obtain a file that can be flashed into the target controller. If the controller is in dead-poll mode due to a previously failed flash attempt you should re-flash the controller with a tune file that does not have any serial number security restrictions before attempting to flash this serial number restricted file.
\$0532	Controller not licensed.	An attempt was made to program a controller before it was licensed.	License the controller before attempting to program it. You can license a controller using the on-screen prompts via FlashScan or AutoCal.

\$0533	No VIN license slots available.	An attempt was made to license a controller when no free VIN licenses slots were available.	<p>Additional VIN license slots can be purchased for FlashScan devices from EFILive's on-line web store (www.efilive.com).</p> <p>FlashScan and AutoCal V2 devices may support up to 221 VIN license slots.</p> <p>FlashScan and AutoCal V3 devices may support up to 600 VIN license slots.</p> <p>Some AutoCal devices may be configured by the supplier with a smaller maximum VIN license limit.</p>
\$0534	Invalid Serial Number.	An attempt was made to program and license a controller that had a corrupt serial number.	<p>It is possible for the serial number to appear corrupt due to a data transfer failure. Retry the operation a few times, if the error continues to occur then the serial number probably is corrupt.</p> <p>In that case, (for LS1 controllers only) use the EFILive Tuning Tool software to full-flash the controller to restore the serial number.</p> <p>For all other controllers, contact EFILive support at (support@efilive.com).</p>
\$0535	AutoCal is not yet linked to a FlashScan. See also error \$010D	An attempt was made to program a controller using an AutoCal device that has not yet been linked to its parent FlashScan device.	All AutoCal devices must be linked to a parent FlashScan device before they can be used to re-flash any controller. Please connect both FlashScan and AutoCal devices and then use the EFILive Control Panel (aka EFILive HAPI) software to perform the link.

\$0536	Tune file is not registered to this AutoCal device.	An attempt was made to program a controller with a tune file that is not linked to this AutoCal device.	AutoCal devices may only be used to flash tune files that have been specifically created for that AutoCal device. To create a tune file specifically for an AutoCal device, the FlashScan device to which the AutoCal has been registered must be connected to the PC when the tune file is created.
\$0537	Controller is locked with a custom key.	An attempt was made to read or program a controller that cannot be unlocked using the standard GM keys.	If you know the key that was used to lock the controller, please use the unlock option in the EFILive software to unlock the controller before attempting to read or re-flash the controller again.
\$0538	DSP Operating Systems cannot be read.	Controller contains a DSP Operating System which can't be read.	Once a controller has been upgraded with a DSP2 or DSP5 custom operating system, it cannot be read from the controller.
\$0539	Tune file does not allow full flashing.	The author of the tune file has flagged the file to prevent full flashing. The file may only be calibration-flashed	Contact the author of the file to obtain a version of the file that can be full-flashed.
\$053A	Controller could not be licensed.	An attempt was made to re-flash or activate a license for a target controller that is not supported by the FlashScan or AutoCal device. For example: You are attempting to re-flash or license a Cummins controller with a FlashScan device that does not have the Cummins tuning package activated.	Contact EFILive to purchase the required support. Or if you believe your FlashScan or AutoCal device has the correct package(s) activated, contact EFILive support at (support@efilive.com).
\$053B	Serial number in tune file does not match the FlashScan or AutoCal Serial number.	The author of the tune file has restricted the device that can be used to flash this file by specifying a device serial number in the security settings of the file.	Contact the author of the tune file to obtain a file that can be flashed using the target FlashScan or AutoCal device.

\$053C	Tune file does not allow calibration flashing.	The author of the tune file has flagged the file to prevent calibration flashing. The file may only be full-flashed.	Contact the author of the file to obtain a version of the file that can be calibration-flashed.
\$053D	Device license number is not valid.	You cannot use a tune file tagged with Auto-Lock if the FlashScan or AutoCal device's serial number is not valid.	For AutoCal devices, retry the flash with a tune file that is not tagged with Auto-Lock (but is linked to the AutoCal device). That will automatically correct the AutoCal's license number. Then you may retry the flash with the original tune file that is tagged with Auto-Lock. For FlashScan devices, please contact EFILive to have the license number corrected.
\$053E	VIN security restriction in *.ctz file does not match controller's VIN.	The author of the tune file has restricted the controllers into which this tune file can be flashed by specifying a VIN pattern in the security settings of the file.	Contact the author of the tune file to obtain a file that can be flashed into the target controller. If the controller is in dead-poll mode due to a previously failed flash attempt you should re-flash the controller with a tune file that does not have any VIN security restrictions before attempting to flash this VIN restricted file.
\$0540	Incompatible operating system.	An attempt was made to program a controller with a tune file containing an incompatible operating system.	Check that the tune file being programmed has a compatible operating system with the controller being programmed. If a 97/98 LS1 controller is in dead-poll mode (i.e. a previous flash failed) then the operating system cannot be accurately determined. In that case, you must full-flash the controller using the EFILive Tuning Tool software.

\$0541	Unknown NVRAM structure.	When full-flashing an LS1B or E54 (LB7) controller, the NVRAM structure was not in the format expected.	Please read the contents of the controller and send the tune file to EFILive Support (support@efilive.com) for analysis.
\$0542	E35 *.ctz file is not merged with OS.	EFILive only reads calibration data from E35 controllers. Opening and saving the *.ctz file using the EFILive PC software adds the necessary operating system data to the file. If an attempt is made to full-flash the file before the OS data has been added it will fail.	Please open and re-save the *.ctz file using the EFILive PC software and then retry the full-flash.
\$0543	Controller could not be erased prior to flashing.	Internal	Contact EFILive if this error persists.
\$0544	Serial number not retrieved correctly, retry.	Some controllers such as the E54 (LB7), E60 (LLY) and AL5 (Allison) will sometimes report back a corrupt serial number. The controller cannot be licensed using that corrupt serial number.	Retry the operation until the serial number is retrieved correctly and the controller can be licensed.
\$0548	Flash checksum failed.	The data programmed into the controller has been corrupted.	Retry the flash procedure. If this problem persists, contact EFILive support.
\$0549	Ignition is switched off.	Ignition switch must be in the on position.	The error indicates that your ignition may not be not switched on, or FlashScan/AutoCal was unable to establish communications with your vehicle. The ignition switch for the vehicle needs to be in the ON position, without the vehicle running. Users should check where the Tuner has made changes to a tune file outside of EFILive, users often receive the \$0549 error when the flash has completed. This may be caused by errors in the calibrations or ECM

			<p>Operating System preventing the ECM from rebooting correctly.</p> <p>The tuner should:</p> <ul style="list-style-type: none"> • Check their work outside of EFILive to ensure the tune file has been modified correctly and provide updated tunes to their customers as required. • Provide a recovery file. This should be a stock file without tune file security, saved with your FlashScan to give your AutoCal customers permission to flash. • Where editing outside of EFILive causes the \$0549 reboot issue, the ECM is usually only recoverable by forcing the ECM into ROM Boot Recovery mode. Specialized bench programming equipment, such as the BenchForce PowerBlock IV with ROM Boot Switch is required to perform this task. Tips for using this equipment include: <ul style="list-style-type: none"> ○ The ECM must be powered down. (IGN switch off but battery power connected.) ○ Hold the ROM Boot switch on. ○ Attempt to flash the ECM with your recovery file. ○ Once the flash is under way you can turn off the ROM Boot switch
\$054A	Boot loader failed to start.	The boot loader program, essential for reading/flashing some controllers could not be downloaded to the controller and/or could not be executed on the controller.	The most common cause of this error is misbehaving modules on the vehicle network. Please isolate all non-essential electronic modules from the vehicle network. Modules such as radios, OBDII

			based gauges, entertainment systems, navigation systems etc.
\$054B	Cannot Auto-Lock while waiting for a successful full-flash.	A failed attempt was made to full-flash the target controller. You cannot use a tune file tagged with Auto-Lock to recover the failed full-flash.	DO NOT REMOVE BATTERY POWER TO THE CONTROLLER. Retry the full-flash with a tune file that is not tagged with Auto-Lock.
\$054C	Operating System is not present in file.	No operating system is present in the file, full-flash is not possible.	A full-flash operation requires that the file contains a valid operating system image. Since the file does not contain a valid operating system image it cannot be full-flashed. Calibration-only-flashing may still be supported for the file.
\$054D	Calibration-only flashing is not allowed yet.	If a tune file is tagged with the Auto-Lock option then the first time the file is flashed it MUST be full-flashed. The full-flash is required to install the EFILocker patch into the operating system. Once that initial full-flash has been completed and the controller is locked, then future flashes may be calibration-only flashes.	Please select the full-flash option instead of the calibration-only-flash option when flashing this tune file for the first time.
\$054E	The target controller does not support calibration-only-flashing with Auto-Locking.	Some controllers do not support calibration-only-flashing and Auto-Locking. Applies to the following controllers: A50 Allison 2009+ 6 speed TCM.	Please select the full-flash option instead of the calibration-only-flash option when flashing this tune file into the target controller.
\$0550	Controller authorization file could not be created.	Some controllers require authorization before they can be read or flashed. The remote.ska file which contains such authorizations does not exist and could not	Check that there is sufficient free space on the device's [Config] file system. Check that device's [Config] file system is formatted correctly.

		be created on the FlashScan or AutoCal device.	
\$0551	Controller authorization file could not be read.	<p>Some controllers require authorization before they can be read or flashed.</p> <p>The remote.ska file which contains such authorizations is empty or not supported by the current software/firmware.</p>	Ensure all software and firmware is up to date.
\$0552	Reading and flashing are not yet authorized for this controller.	<p>Some controllers require authorization before they can be read or flashed.</p> <p>During pass-thru reading/flashing, an authorization code is created in the [F3: Tune]->[F8: Authorization] tab page.</p> <p>During black box reading/flashing, an authorization code is created on the device.</p>	<p>If you were using black box logging, use the [Synchronize] button in the [F3: Tune]->[F8: Authorization] tab page to copy the authorization code from the device to your PC.</p> <p>To obtain a valid key, place an order in the EFILive store for a Controller Authorization Code using the newly saved authorization code that is displayed in the [F3: Tune]->[F8: Authorization] tab page.</p>
\$0553	Controller authorization file version is not supported.	<p>Some controllers require authorization before they can be read or flashed.</p> <p>The version number of the remote.ska file is not supported by this firmware.</p>	Ensure the device's firmware is up to date.
\$0554	Controller authorization is not supported for this controller type.	<p>Some controllers require authorization before they can be read or flashed.</p> <p>EFILive and other authorization code providers are able to obtain the authorization codes for some controllers but not this one.</p>	<p>This controller can only be read or flashed if the 5 byte (40-bit) digital key assigned to it by GM can be obtained via other channels.</p> <p>Once obtained the 5-byte key may be entered into the "Try This Key:" field to unlock the controller prior to reading or flashing the controller.</p>
\$0558	Template config file not found.	Internal	Contact EFILive if this error persists.

\$0558	Template config file invalid during file open/create.	Internal	Contact EFILive if this error persists.
\$0558	Template config file invalid during file read.	Internal	Contact EFILive if this error persists.
\$0558	Template config file version not supported during file open/create.	Internal	Contact EFILive if this error persists.
\$0558	Template config file version not supported during file read.	Internal	Contact EFILive if this error persists.
\$0558	Template config could not be read during file open/create.	Internal	Contact EFILive if this error persists.
\$0558	Template config could not be read during file read.	Internal	Contact EFILive if this error persists.
\$0560	Template data file not found	Internal	Contact EFILive if this error persists.
\$0561	Template data file invalid	Internal	Contact EFILive if this error persists.
\$0562	Template data file version not supported	Internal	Contact EFILive if this error persists.
\$0563	Template data could not be read	Internal	Contact EFILive if this error persists.
\$0564	Template data could not be written	Internal	Contact EFILive if this error persists.

Reading/Flashing Error Codes (\$0600..\$06FF)

Error	Description	Cause	Action
\$0674	Illegal address.	An attempt was made to read or reprogram a memory address in the controller that may not be read or reprogrammed.	Contact EFILive if this error persists.
\$0677	Boot loader checksum failed.	The boot loader program code has been corrupted.	Re-install the EFILive V8 software. Contact EFILive if this error persists.
\$0683	Battery voltage out of range.	The power supply to the controller is either too high or too low.	Please make sure the vehicle's battery is fully charged. If using a bench harness please make sure the power supply is capable of delivering 12V regulated at 1A.
\$0684	Flash chip programming voltage error.	The flash chip programming voltage is incorrect.	This error is usually caused by a faulty controller. Contact EFILive if this error persists.
\$0685	Flash chip could not be programmed.	The flash chip and or related circuits in the controller are faulty.	This error is usually caused by a faulty controller. Contact EFILive if this error persists.
\$0687	Programming voltage did not turn on.	The flash chip and or related circuits in the controller are faulty.	This error is usually caused by a faulty controller. Contact EFILive if this error persists.
\$0688	Programming voltage did not turn off.	The flash chip and or related circuits in the controller are faulty.	This error is usually caused by a faulty controller. Contact EFILive if this error persists.

\$0689	Unknown Flash chip device type.	The controller is fitted with non-standard or unknown flash chip(s).	Contact EFILive if this error persists.
\$06CC	Unrecognized swap segment format.	The controller is using an unknown non-volatile RAM swap segment format.	Contact EFILive if this error persists.
\$06FF	Checksum failure.	The data written to the controller has been changed or corrupted during reprogramming.	Please retry the flash operation. Tune files that have been incorrectly modified by other tuning packages may contain information that prevents the correct calculation of the checksum. Please open the tune file and search for calibration B9999 "Flash Checksum Fail Fix". If that calibration exists, follow the instructions in that calibration's description and then retry the flash operation.

Scanning Error Codes (\$0700..\$07FF)

Error	Description	Cause	Action
\$0701	EDA scanning not supported on this controller.	An attempt was made to scan EDA PIDs from a Cummins controller that does not support EDA PIDs.	Upgrade the Cummins controller with EFiLive's CSP5 custom operating system.
\$0702	Data logging memory is full.	The data logging upper limit has been reached, logging has been stopped. An upper limit is enforced to prevent data logging using too many resources on your PC.	The upper limit can be customized using menu option: Edit->Properties->Scan Tool->Data Logging.

Lua Tune Script Error Codes (\$0800..\$09FF)

Error	Identifier	Description
\$0800	tleUnknown	An unknown error occurred.
\$0801	tleException	An exception occurred, the Lua variable EFI_ErrMsg contains a description of the exception.
\$0802	tleIntegerExpected	Integer argument is expected but a non-integer argument was supplied.
\$0803	tleIntegerOutOfRange	The integer argument was not within the expected/required range.
\$0804	tleColRange	The column parameter was not within the expected/required range.
\$0805	tleRowRange	The row parameter was not within the expected/required range.
\$0806	tleNoConversion	The unit conversion requested is not defined.
\$0810	tleTooManyFiles	Attempt to open too many files. Limit 5.
\$0811	tleInvalidFile	Attempt to use a file descriptor that is not in the range 0..4.
\$0812	tleFileNotOpen	Attempt to use a file descriptor that is not open.
\$0813	tleFileAlreadyOpen	Attempt to re-open an already open file.
\$0814	tleFileNotIdentified	Attempt to open a file for which EFILive cannot identify the correct controller.
\$0815	tleFileIsReadOnly	Attempt to update properties in a read-only file.
\$0816	tleNoSaveDefault	Attempt to save the default tune file when script is running inside the V8 GUI.
\$0817	tleUnsupportedCal	Attempt to set or get value from a calibration with an unsupported data type.
\$0818	tleReadOnlyCal	Attempt to modify a read-only calibration.
\$0819	tleWriteAccessDenied	Attempt to modify a calibration in a file with security setting "Cannot be Modified".

\$081A	tleReadAccessDenied	Attempt to read a calibration in a file with security set to "Cannot be Viewed or Modified".
\$081B	tleCalNotFound	Attempt to retrieve the calibration ID of a non-existent calibration name.
\$081C	tleUsaEpaRestricted	Attempt to retrieve the calibration ID of a USA EPA restricted calibration name.
\$081D	tleNotSupported	Attempt to perform an unsupported operation.
\$081E	tleDataNotLoaded	Only the header or meta data was loaded. No data was loaded when the file was opened.
\$0850	tleInvalidId	Invalid id passed to _efildToStr() function.
\$0851	tleInvalidMetalId	Invalid idType passed to _efildToStr() function.
\$0852	tleInvalidCalId	Invalid calibration id.
\$0853	tleInvalidCalPropId	Invalid calibration property id.
\$0854	tleInvalidFilePropId	Invalid file property id.
\$0855	tlePropReadOnly	Attempt to update a read-only file property.
\$0856	tlePropNotSupported	Attempt to update a file property that is not supported for the current controller.
\$0857	tlePropValueIsNil	Property value is nil when it must not be nil.
\$0858	tlePropValueNotTable	Property value is not a table when a table is expected.
\$0859	tlePropValueNotEmpty	Property value is not empty when an empty value is expected.
\$0870	tleSecurityLocked	Attempt to modify a file's security settings when the security settings are already set.
\$0871	tleAutoLockNotSupported	Attempt to set the Auto-Lock property for a file whose controller does not support Auto-Locking.
\$0872	tleNoMasterFlashScan	Attempt to update/save a file property id that requires a master FlashScan when no master FlashScan is present.

\$0873	tleNoProLicense	Attempt to update/save a file property id that requires the Pro Tuning license when no Pro Tuning license is present.
\$0874	tleSecurityDeclined	User declined to allow security options to be saved.

BBX Configuration Codes (\$0A00..\$0A7F)

Error	Description	Cause	Action
\$0A01	Options.txt file is missing.	Black box configuration has not been programmed correctly.	Use the [F5: BBX] option in the EFILive V8 software to program the Black box configuration.
\$0A02	Options.txt file format is damaged.	The configuration settings in the black box configuration file Options.txt contain unknown or unexpected values or formats.	Use the [F5: BBX] option in the EFILive V8 software to re-program the Black box configuration.
\$0A03	No controllers have been configured for data logging.	*PID_SELECTION section of Options.txt file is empty.	Use the [F5: BBX] option in the EFILive V8 software to configure at least one controller that can be data logged by the EFILive software.
\$0A04	No PIDs have been selected for the chosen controller.	*PSL_xx section of Options.txt file is empty.	Use the [F5: BBX] option in the EFILive V8 software to configure at least one PID for the chosen controller.
\$0A05	No controllers have been configured for reading.	Options.txt file does not contain any controllers that can be read out. Either no controllers have been configured for reading, or none of the configured controllers can be read out by the EFILive software.	Use the [F5: BBX] option in the EFILive V8 software to configure at least one controller that can be read out by the EFILive software. The matching XXX_R.obj script file must be present on the device, where XXX is the controller's name.
\$0A06	Tune file <name> not found.	A custom menu has attempted to reference a tune file with the name <name> that is not installed on the device.	The custom menu should be modified to refer to an existing tune file on the device or the missing tune file should be installed on the device.

\$0A07	Pre-selected menu option cannot be loaded.	A custom menu has attempted to reference a *.obj file or *.pmm file that is not installed on the device.	The custom menu should be modified to refer to an existing *.obj or *.pmm file on the device or the missing *.obj or *.pmm file should be installed on the device.
\$0A11	Import file is corrupt.	The import file is not a valid VIN license export file.	Re-export the VIN licenses to create a new, valid VIN license export file.
\$0A12	Import file is not licensed to this device.	Only devices with the same license number can share VIN licenses via the Import/Export option.	Contact EFILive for help with standardizing multiple devices' license numbers.
\$0A13	Cannot import licenses, not enough unused slots available on device.	There are more VIN licenses in the import/export file than there are unused VIN slots in the device.	Export fewer VIN licenses.
\$0A14	No licenses were imported.	Only used VIN licenses that are not already installed on the device will be imported.	Export at least one used VIN license from the source device that is not already installed on the target device.
\$0A21	Switching not supported for selected controller.	Switchable tunes are only available for Duramax controllers upgraded with a DSP4 or a DSP5 custom operating system and Cummins controllers upgraded with a CSP5 custom operating system.	Select a controller that supports switchable tuning.
\$0A22	No switch names have been configured.	Switchable tune names are not listed in the Options.txt file.	Use the [F5: BBX] -> [F4: Switch] option to configure switchable tune names.
\$0A23	Selected tune is out of range.	DSP4 only supports a maximum of 4 switchable tune names. DSP5 and CSP5 only support a maximum of 5 tune names.	Reduce the number of switchable tune names in the *SW_DSP4, *SW_DSP5 and/or *SW_CSP5 sections of the Options.txt file.

\$0A24	Selected tune is not supported.	Cannot perform a CSP5 switch on a non-CSP5 operating system. Cannot perform a DSP5 switch on a non-DSP5 operating system. Cannot perform a DSP4 switch on a non-DSP4 operating system.	Ensure the appropriate switch operation has been selected for the target controller and that the target controller has the appropriate custom operating system installed.
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Internal Error Codes (\$0A80..\$0AFF)			
Error	Description	Cause	Action
\$0A81	Invalid argument	Internal	Contact EFILive if this error persists.
\$0A82	User aborted operation	Internal	Contact EFILive if this error persists.
\$0A83	Not implemented	Internal	Contact EFILive if this error persists.
\$0A84	Received test message is too short	Internal	Contact EFILive if this error persists.
\$0A85	Received test message is too long	Internal	Contact EFILive if this error persists.
\$0A86	Received test message is invalid	Internal	Contact EFILive if this error persists.

Cryptographic Error Codes (\$0B00..\$0B7F)

Error	Description	Cause	Action
\$0B01	Invalid V3 encrypted data (1).	Encrypted file does not begin with \$76336372.	Contact EFILive if this error persists.
\$0B02	Invalid V3 encrypted data (2).	File format is not supported by this software version.	Upgrade to the latest EFILive software.
\$0B03	Invalid V3 encrypted data (3).	Corrupted or tampered encryption data.	Contact EFILive if this error persists.
\$0B04	Invalid V3 encrypted data (4).	Encrypted file format is invalid.	Contact EFILive if this error persists.
\$0B10	Invalid V3 stream operation.	Corrupted or tampered encryption data.	Contact EFILive if this error persists.
\$0B11	FlashScan V3 device is not connected.	A FlashScan V3 device must be connected for all cryptographic operations.	Connect a FlashScan V3 device.
\$0B12	Serial number is invalid.	An attempt was made to encrypt a file using an invalid FlashScan V3 serial number.	A valid FlashScan V3 serial number must contain 12 digits and begin with 006.