**Autocal Flashing Procedures**

**\*\*\*\*Important information to read prior to autocal use\*\*\*\***

If you purchased this autocal with tuning, the tune files will come pre-loaded on the autocal. If you receive an additional file, or modified file in an email as an attachment, we have provided instructions on how to load this file on to the autocal. Before flashing or reading, it is important to be sure that the autocal is set up appropriately with the latest EFI Live software and config files. (This should already be done when the autocal is sent to you, but we recommend verifying this to avoid running in to any issues).

Have a windows computer handy as you may need it to make any changes, updates, load new tune files, or send us datalogs and stock read files.

Download the latest EFI Live software from <https://www.ppei.com/support>

Keep this on your computer for future use.

We will provide instructions that will detail the following;

* + How to flash tunes on to the vehicle
	+ How to load new/revised tunes on to your autocal
	+ How to read out your stock file (if necessary)
	+ How to record a datalog
	+ How to update/configure your autocal

**ECM Controller Code List: (For autocal configuration)**

**2001-2004 Duramax LB7: E54**

**2004.5-2005 Duramax LLY: E60**

**2006-2007 Duramax LBZ: E35A**

**2007.5-2010 Duramax LMM: E35B**

**2011-2014 Duramax LML: E86A**

**2015 Duramax LML: E86B**

**2006-2007 5.9L Cummins: CMB**

**07.5-09 6.7L Cummins: CMC**

**10-12 6.7L Cummins: CMD**

**13-15 6.7L Cummins: CME**

**01-10 Duramax TCM tuning (HOW TO READ OUT YOUR STOCK TCM FILE) (If you ordered TCM tuning)**

1. First make sure the autocal is set up appropriately by configuring it with he latest bbx settings.
2. Now, make sure the autocal is up to date with the latest EFI Live software firmware and config files.
3. Plug autocal in to the vehicle and turn the key to on/RUN position.
4. Autocal Screen will display ‘Scan Tool’. Scroll down to “Tuning Tool” and press OK.
5. Scroll down to “READ TUNE” and press OK.
6. Scroll down and select your TCM controller (AL5 for 01-05 trucks, A40 for 06-08 trucks, A50 for 09-early 15 model).
7. Autocal will now go through the reading process to 100%.
8. Once the autocal reaches 100% and says “ignition off now” turn the key off and press ok. Disconnect from the truck and plug back in to your computer.
9. Plug back in to computer, open up EFI live explorer, select the READ folder. Your stock tcm read file will be in there. you can now drag and drop it to the desktop and send to us in an email or support ticket.

**01-10 Duramax (HOW TO READ OUT YOUR STOCK ECM FILE )**

1. First make sure the autocal is set up appropriately by configuring it with he latest bbx settings.

2. Now, make sure the autocal is up to date with the latest EFI Live software firmware and config files.

3. Plug autocal in to the vehicle and turn the key to on/RUN position.

4. Autocal Screen will display ‘Scan Tool’. Scroll down to “Tuning Tool” and press OK.

5. Scroll down to “READ TUNE” and press OK.

6. Scroll down and select your ECM controller (E54 for 01-04 LB7, E60 for 04.5-05 LLY, E35A for 06-07 LBZ, E35B for 07.5 to 10 LMM).

7. Autocal will now go through the reading process to 100%.

8. Once the autocal reaches 100% and says “ignition off now” turn the key off and press ok. Disconnect from the truck and plug back in to your computer.

9. Plug back in to computer, open up EFI live explorer, select the READ folder. Your stock ECM read file will be in there. you can now drag and drop it to the desktop and send to us in an email or support ticket.

**Flashing .CTZ formatted Tune Files (01-16 Duramax and 06-18 Cummins)**

1. Verify that the Autococal is up-to-date with the current/most recent firmware and configured for the appropriate vehicle using our latest BBX config files/settings. (See instructions for updating the autocal and config files)

2. Verify that the tune file is loaded onto the autocal, and that the autocal is programmed to use "simple menu".

3. Once this has been done, connect the autocal to the OBD2 port and turn the key to the ON/RUN position.

4. When the autocal is connected, it should say "Scan Tool". Scroll down to "Tuning Tool" and press OK.

5. Scroll down to "Program Full" and press OK.

6. Scroll down and select the tune file ending in .CTZ - press OK.

7. If the controller has not been licensed, it will say "License ECU Now?" - Press OK to activate VIN license.

8. The Flashing process will now begin and will progress to 100%.

9. When flashing has reached 100%, the autocal screen will display the message, "Ignition off now". Turn the key to the OFF position and press OK.

10. Once this has been done, a countdown will begin. When the countdown is complete, the autocal will display "Program Full". This indicates that flashing has completed successfully.

11. You may now disconnect the autocal from the OBD2 port and start the vehicle. (Before starting the vehicle make sure than any modifications being done to the vehicle have been completed and vehicle is OK to start).

**Flashing .COZ formatted Tune Files (11-16 LML Duramax)**

1. Verify that the Autococal is up-to-date with the current/most recent firmware and configured for the appropriate vehicle using our latest BBX config files/settings. (See instructions for updating the autocal and config files)

2. Verify that the tune file and A\_Flash/A\_stock file is loaded onto the autocal, and that the autocal is programmed to use "simple menu".

3. Once this has been done, connect the autocal to the OBD2 port and turn the key to the ON/RUN position.

4. When the autocal is connected, it should say "Scan Tool". Scroll down to "Tuning Tool" and press OK.

5. Scroll down to "Program Full" and press OK.

6. Scroll down and select the tune file: A\_Flash - press OK.

7. If the controller has not been licensed, it will say "License ECU Now?" - Press OK to activate VIN license.

8. The Flashing process will now begin and will progress to 100%.

9. When flashing has reached 100%, the autocal screen will display the message, "Ignition off now". Turn the key to the OFF position, and press OK.

10. Once this has been done, a countdown will begin. When the countdown is complete, the autocal will display "Program Full". This indicates that flashing has completed successfully.

11. Now, turn the ignition back to the ON/RUN position.

12. Scroll down to "Program Cal" and press OK.

13. The Flashing process will now begin and will progress to 100%.

14. When flashing has reached 100%, the autocal screen will display the message, "Ignition off now". Turn the key to the OFF position, and press OK.

15. The autocal will display "Program Cal".

16. You may now disconnect the autocal from the OBD2 port and start the vehicle. (Before starting the vehicle make sure than any modifications being done to the vehicle have been completed and vehicle is OK to start).

**01-10 Duramax TCM Tune Flashing Procedure**

1. Turk Key to on/RUN position and plug Autocal in to OBDII Port.
2. Autocal Screen will display ‘Scan Tool’. Scroll down to “Tuning Tool” and press OK.
3. Now Scroll down to “program CAL” and press OK.
4. Now Scroll down to your TCM tune file (AL5,A40,A50) .ctz and press OK to select and begin flashing.
5. Once the autocal flashing process reaches 100%, wait for the autocal to display “Ignition off now”. Turn ignition off. Press OK. Wait for the countdown to complete.
6. Now you may disconnect your autocal from the vehicle.
7. Start the vehicle to verify all functions properly.

**2011-2016 Duramax TCM flashing Procedure (A50 and T87)**

1. Turk Key to on/RUN position and plug Autocal in to OBDII Port.
2. Autocal Screen will display ‘Scan Tool’. Scroll down to “Tuning Tool” and press OK.
3. Now Scroll down to “program FULL” and press OK.
4. Now Scroll down to your TCM tune file (A50 or T87) .ctz and press OK to select and begin flashing.
5. Once the autocal flashing process reaches 100%, wait for the autocal to display “Ignition off now”. Turn ignition off. Press OK. Wait for the countdown to complete.
6. Now you may disconnect your autocal from the vehicle.
7. Start the vehicle to verify all functions properly.

**Pass - Through Flashing Procedure**

1. Verify that the customer has a windows laptop with TeamViewer 11 and EFI Live lastest software inside the truck and has internet access/connection.

2. Access customers computer via TeamViewer open EFI Live Explorer V8. Select F:3 Data Files tab to display the "scan" "tune" and "read" folders. Select the "tune" folder and and click and drag the .CTZ tune file to the customers desktop. (You can also transfer the tune file to the customer's desktop from your desktop).

3. Once the tune file is on the customer's desktop, double click the tune file to open it. Select OK on the pop up messages.

4. Instruct the customer to turn the key to the ON/RUN position.

5. Select F:7 Full Flash.

6. If the controller has not been licensed, select "Activate VIN License" - Select "Yes/OK" to the warnings and wait for the activation to complete. Once complete the message "Script file complete will be displayed" select OK.

7. LEAVE KEY IN THE RUN POSITION. Verify that is is still in the ON/RUN position before proceeding.

8. Depending on the type of vehicle, select the appropriate options/check boxes on the right hand side of the screen before continuing. (LB7/LLY vehicles have specific instructions listed in $0101 error code flashing procedure. CMD/CME Cummins controllers should un-check FAST/CAN, all other vehicles should leave these options un-touched).

9. Select "FULL FLASH" - Accept/select OK to the warnings to proceed with flashing.

10. The Flashing process will now begin and will progress to 100%. (Green loading bar).

11. Once flashing is complete, a message will appear instructing "place ignition off now". Place the ignition in the OFF position and click "start countdown".

12. Once the countdown is complete, disconnect the autocal from the OBD port. You may start the vehicle after verifying that the vehicle is in running condition.

**Reconfiguring the Autocal/V2 with our BBX file:**

Download EFI Live V8 Software here: [www.ppei.com/support](http://www.ppei.com/support)

You need to configure the Autocal/V2 with our bbx file to set the proper PIDs for logging. Save the attached file to your desktop. Double click that file on your desktop. Click on the Scan tab to the left of the window that comes up. Select the appropriate ECM for your truck. Click on the tune tab to the left side of the window, and select the proper ECM again. After that, click on the drop down arrow located on the right side of the red Program button at the bottom of the window. Select the third option in the drop down list (format option)…click yes on pop up window. Click that drop down arrow on the program button again, and select the second option this time (Program…Slower option)…yes to pop up again. Once the progress bar finishes going across screen and disappears, close out of the window and unhook the Autocal/V2. You can go record the logs with the Autocal/V2, and it will have the proper data parameters recoded for us. Once you finish recording the logs, just copy the logs off the Autocal/V2 onto your desktop and attach them in your email reply to this thread.

ECM Controller List:

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2004.5-2005 Duramax LLY: E60

2006-2007 Duramax LBZ: E35A

2007.5-2010 Duramax LMM: E35B

2011-2014 Duramax LML: E86A

2015 Duramax LML: E86B

2006-2007 5.9L Cummins: CMB

07.5-09 6.7L Cummins: CMC

10-12 6.7L Cummins: CMD

13-15 6.7L Cummins: CME

**Tune File Loading:**

Download EFI Live V8 Software here: www.ppei.com/support

Replacing Old File with the New File

- Download the new file attached with this email and save it to your desktop.

- Plug the AutoCal into your computer

- Open the “EFILive Explorer” program (same program you went into to get the read file off the autocal)

- On the “F3: Data Files” tab it should have an EFILive folder, Scan folder, Tune folder, and Read folder (just to the right of the multi-colored triangle at the bottom left of the window)

- Now click on the “Tune Folder” and you should see the old ECM file to the right of the folder icon

- Right click on the old tune file in that window and select “delete”…yes to warning

- Minimize the window so you see the desktop

- Locate the new file that you saved from your email, and right click on the file – Select “Copy”

- Open the Explorer program back up from the taskbar at the bottom, and right click in the area where the old file was saved – Select “Paste”

- Once the green progress bar finishes moving across the screen (may take a couple minutes), you can reflash the truck with the new file (just as you did before)

**Flashing the New Tune File**

1. Turn the key to the “RUN” position, do not start the truck

2. Scroll down to “Tuning Tool” press “OK”

3. Scroll down to “Program Full” press “OK”

4. Toggle down to the new tune file & press “OK” the screen will say “Checking to 100%”

5. The AutoCal should now say “Please Wait…. Erasing… Flashing” with a percentage (%) below it. The flashing process takes approximately 3-4 minutes.

6. When the flashing process has finished, the AutoCal will prompt you to turn the “Ignition off now!” - Turn the key off and press “OK”

7. Once the countdown completes, you can disconnect the Autocal from the OBDII port, and start your truck

Download EFI Live V8 Software here: www.ppei.com/support

**Loading the New File**

- Download the stock file attached with this email and save it to your desktop.

- Plug the AutoCal into your computer

- Open the “EFILive Explorer” program (same program you went into to get the read file off the autocal)

- On the “F3: Data Files” tab it should have an EFILive folder, Scan folder, Tune folder, and Read folder (just to the right of the multi-colored triangle at the bottom left of the window)

- Now click on the “Tune Folder” and you should see the tune file to the right of the folder icon

- Right click on that file and select "Copy"

- Minimize the EFI Live Explorer program

-Right click on the desktop and select "Paste"

-After that file saves to the desktop, reopen explorer and right click on the tune file again and select "Delete"...Are you sure? - Click "Yes"

- Locate the new file that you saved from your email, and right click on the file – Select “Copy”

- Open the Explorer program back up from the taskbar at the bottom, and right click in the area where the tune file is currently saved – Select “Paste”

- Once the green progress bar finishes moving across the screen (may take a couple minutes), you can reflash the truck with the stock file (just as you did before)

**How to record a datalog:**

- Plug your Device into the truck while it’s running (you want to Data Log the truck under power so we can further diagnose the issues you are experiencing)

- Now with the AutoCal in hand - the display screen should saying “Scan Tool” - Press “OK”(middle button)

- Scroll down (1) time to “Record Data” - Press “OK”(middle button)

- If it prompts you to select the type of ECM Controller you have: \*\*PLEASE SEE CONTROLLER LIST BELOW\*\*

- Once you have selected your controller it will begin counting from 1,2,3,4,5…… Meaning that it’s recording.

- Drive the truck and record the data where you feel the truck isn’t performing properly so we can diagnose the issue (no longer then 1-2 minute recording please)

- When you are done recording press the up arrow – It will prompt you with “Exit?” - Press “OK” to exit and save the datalog

\*\*Pay attention to the name(s) of the logs you take, especially when recording multiple logs back to back under different conditions/tune-levels\*\*

**Saving the Datalog to your computer:**

-Download and Install the newest version of EFI Live V8 (if you haven’t done so already – You may click on the link below or copy & paste it into your web browser address bar) http://download.efilive.com/Software/V8/EFILiveV8.2.5.316\_Setup.exe

- Once you have completed installing the EFI Live software - - Plug the AutoCal into your computer and allow it to load the device drivers on its own (wait a few minutes)

- Open the “EFILive Explorer” program now (The icon should be on your desktop now)

- On the “F3: Data Files” tab it should have an EFILive folder, Scan folder, Tune folder, and Read folder (just to the right of the multi-colored triangle at the bottom left of the window)

- Click on the “Scan folder” – This is where your Data Log(s) will be saved

- Right click on the logs you want to send us, and select “Copy”

- Minimize the window so you see the desktop, and right click on the desktop – Select “Paste”

-Repeat this copy and paste process with any additional logs you would like to send us.

**Sending the Datalog:**

If you have been previously communicating with us regarding the issue, please reply back to the most recent email/support ticket (so we can keep your history together) and simply attach the log to your email. Please also include a brief message with it that tells us the conditions and tune-levels that were present with each log file you send. (Ex: Log 0001: Maxx Effort tune 0-60mph at wide open throttle, Log 0002: Economy mild acceleration under load)

If you have not already emailed PPEI or had a technical support ticket created for you prior to this, please include all of the information from above plus a description of how the truck is behaving in a new support ticket. Visit [www.ppei.com/support](http://www.ppei.com/support) to do so and include all of the prompted info. The more information/feedback we have, the easier it will be for us to pinpoint the source(s) of your issue(s)