

Reference Guide and Step-by-Step Installation Manual

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This programmer is legal for sale or use on California pollutioncontrolled motor vehicles according to the CARB Executive Order process. In the interest of improved air quality, the California Air Resources Board (CARB) requires new vehicle and manufacturers of aftermarket parts to develop engine and emissions equipment that either reduce or maintain specific air pollutants affected by vehicle use. Both the California Vehicle Code (section 27156) and Federal Clean Air Act (administered by the Environmental Protection Agency) prohibit modifications that increase vehicle emissions. Aftermarket parts manufacturers, particularly in the high-performance segment, are required to obtain CARB approval in the form of Executive Orders (E.O.s) for any product not qualifying as a direct replacement for an original equipment part. This includes meeting all E.O. requirements in its product development process. This guarantees that users of this product will meet certification requirements when registering, selling, or needing to pass various emissions tests or Inspection and Maintenance (I&M) programs administered by state or local enforcement agencies.

Make sure that any emissions-related product you buy and install carries an E.O. number or is pending an E.O. Without this verification you are at risk, in potential violation of regulations and may incur unnecessary financial obligations during vehicle inspections or emissions tests. The installation process if very easy and should not take long for programming and installation to be accomplished. To speed and streamline the installation, follow these recommendations.

It is very important in the programming process that the vehicle's battery is fully charged and you do not have a drain on the battery. For this reason these precaution should be taken. Please check and remove the following if they are installed on the vehicle.

DO NOT program with a battery charger connected to the vehicle.

Close and keep all doors shut. (This eliminates interior lights and alarms from sounding.)

DO NOT operate electrical accessories (radio, windows, wipers, etc.). If it's hot, roll the window(s) down BEFORE programming the vehicle.

Vehicles equipped with OnStar, satellite radio, remote starter, and/or aftermarket speakers/amplifiers MUST have the fuse/fuses removed in order to disable those devices PRIOR to and during the programming process. (Refer to the owners manual for location of radio, remote start, and amp fuses.)

Make sure nothing is plugged into the cigarette lighter or any other auxiliary power port on the vehicle BEFORE programming.

After inspection of the vehicle and removal of the fuse(s) that operate any accessory packages, continue with the installation of the programmer.

Once the programming cable has been connected to the vehicle's diagnostic port and to the programmer, DO NOT remove or disturb the cable during the ENTIRE programming process. Only remove the cable from the diagnostic port when the installation is complete.

DO NOT leave the vehicle during programming. The programmer screen will display instructions for you to follow i.e., turning the key to the On position (but NOT starting the engine), and you will be asked to select certain engine tuning and vehicle adjustment features.

The Max Energy E-CONTM Is Internet Updateable

Your Max Energy E-CON is ready to performance tune your vehicle, right out of the box. However, it is possible that you will see a "Cal not found" message on the E-CON screen. That means that your vehicle has a new calibration not available when your programmer was manufactured. This is not a problem because the E-CON has internet update capability, but if it does occur, simply install the internet update software on the disk provided with the E-CON and save the program to your PC, connect your programmer to your PC with the supplied USB cable, follow a few simple instructions, and update your E-CON with the correct new calibration. Then, proceed to re-program in the normal manner.

During the installation and programming if an error should occur, a help number will be displayed on the programmer screen. Write down the error message and contact the tech support team on the provided telephone number from 8am-5pm, Central Time, Monday-Friday.

SECTION 1: PROGRAMMING INSTRUCTIONS

Set the parking brake and turn the key to the RUN position but DO NOT start the engine.

Connect one (1) end of the provided cable to the programmer.

Locate the diagnostic port under the driver's side of the dash. Plug the programmer cable into the diagnostic port. Make sure the cable is plugged in completely to ensure a good connection. **DO NOT disturb the cable once it is connected to the diagnostic port.**

The programmer will show applications and copyright information and identify the vehicle. This screen will appear:

CHECKING FOR DIAGNOSTIC TROUBLE CODES

The programmer is checking the vehicle for any diagnostic trouble codes (DTCs). If no DTCs are found, this screen will now appear:

NO DTCS REPORTED	
"X" DTCS REPORTED	

"X" represents the number of DTCs found in the vehicle. This screen will now appear:

> VIEW DTCS = Y CLEAR DTCS = N

Press 'Y' to view the DTC(s) found in the vehicle. Press 'N' to clear the DTC(s) without viewing them. If Y' is pressed, these screens will appear:

WRITE DOWN THE FOLLOWING DTCS AND REFER TO FACTORY MANUALS FOR EXPLANATION

> DTC #1 --- PXXXX NEXT DTC = N

IMPORTANT NOTE

For DTC interpretations, refer to factory manuals, see a local parts dealer, or refer to internet sites that provide this type of information. An example of such a website is <u>www.obdii.com</u>.

Press the 'N' button to view the next DTC (if any). Once all the DTCs have been viewed, this screen will appear:

NO MORE DTCS, TO VIEW AGAIN, PRESS Y TO CONTINUE, PRESS N

Press 'Y' to view the DTC(s) again. Press 'N' to continue. If 'N' is pressed, this screen will appear:

DTCS MUST BE CLEARED BEFORE CHANGING PROGRAM. TO CLEAR DTCS PRESS Y TO KEEP DTCS AND EXIT PROGRAM PRESS N

Press 'Y' for the programmer to clear the DTC(s). These screens will now appear:

CLEARING DTCS

ALL DTCS HAVE BEEN CLEARED

The programmer has now successfully cleared the DTC(s) found in the vehicle computer. This screen will now appear:

TO ENTER PROGRAMMER MODE, PRESS Y TO EXIT PROGRAM, PRESS N For each option, press the 'Y' button to make a change. Press the 'N' button to make no change and proceed to the next option. For some options, use the \blacktriangle and \blacktriangledown arrows to point to a particular selection. Pressing the 'Y' button will then lock in the selection.

ENGINE TUNING

TO INSTALL ENGINE TUNING, PRESS Y TO KEEP FACTORY ENGINE TUNING, PRESS N

Press the 'Y' button to install optimized engine tuning. Then follow the prompts on the screen for each particular application. Press 'N' to keep the stock vehicle tuning.

Why 2 tuning programs for diesels?

For diesel engines, two tuning programs are supplied...Fuel Program A and Fuel Program B. Which Program will deliver the best fuel economy depends on your driving style, hauling or towing weight, and the terrain over which you are driving.

To determine the best Fuel Program for your vehicle, you should try both. Select Program A, carefully fill your tank, record the number of gallons to the nearest 1/10th gallon, and record your odometer mileage, to the 1/10th mile if possible. Run at least one full tank of fuel, and then re-fill at the same station and the same pump as carefully as you did on the first fill up. This way, you are eliminating any possible differences in the levelness of the driveway at the station, and any accuracy differences between different fuel pumps. It is fine to run two or more tanks for this test, and in fact, you will get more accurate results if you do. Just record any and all gallons from the one or more fill-ups, and divide the total into the total of the miles traveled between the first fill-up and the last fill-up to calculate your mpg (miles per gallon) for Program A.

Repeat the procedure for Program B and choose the program you like the best, for power and fuel mileage. You may find that you like to use both programs depending on whether you are in town or on the road, or when running with no-load or a heavy load. With two fuel programs, you can fine tune your own engine for best performance to your own standards for different driving conditions.

Because both programs will increase your horsepower and performance, you might want to play around on the first tank full of fuel each time you re-tune. Then, after you've had some fun and are ready to drive like you usually do, fill up and start your mileage testing. To accurately measure for best fuel economy, it is important that you test each program while pretty much driving the same routes at the same speeds.

IMPORTANT NOTE

For an additional charge, you can upgrade the E-CON for these additional features: Top-speed limiter, RPM "rev" limiter, speedometer/odometer correction, transmission shift points & firmness, and cooling fan "on/off" temps. Adjustable features listed are NOT applicable for all applications. The year, make, and model of the vehicle will determine the feature set. Call Hypertech for details.

PROGRAMMING

Follow all of the prompts on the programmer screen during the entire programming process for the vehicle. While the unit is programming, the following is EXTREMELY IMPORTANT:

DO NOT leave the vehicle while programming is in process.

DO NOT unplug or disturb the cable, turn the key off, or start the engine (unless instructed to by the programmer). If the unit stops programming or is interrupted, please make a note of any message(s) that appear on the programmer screen and call the provided tech service line.

IMPORTANT NOTE

On certain applications, the dash message center may display random code information such as REDUCED ENGINE POWER. This is a NORMAL step during the programming process for certain applications.

After the programmer has successfully programmed the vehicle, wait thirty (30) seconds, then unplug the programmer from the vehicle and start the engine, making sure the "Check Engine" light on the instrument cluster goes out (If it stays on or flashes, call the provided phone number). Warm up the engine and make sure it is running smoothly.

FOR ONSTAR or SATELLITE RADIO EQUIPPED VEHICLES. Plug any connector(s) back into the original location and reinstall any panels and/or other interior components that were removed prior to programming.

For gas applications, after programming the vehicle, check for detonation. This is a "pinging" sound heard during heavy acceleration. Make sure the correct octane of gasoline is being used for the engine tuning that is installed (regular octane). If any "pinging" is heard, back off the throttle and call the provided tech service line.

SECTION 2: PROGRAMMING VEHICLE BACK TO STOCK OR CHANGING OPTION SETTINGS

Reconnect the programmer to the vehicle as in Section 1. Turn the key to the RUN position but DO NOT start the engine. The programmer will turn on and this screen will appear:

> TO RETURN VEHICLE TO FACTORY SETTINGS, PRESS Y TO ACCESS PROGRAMMER FEATURES, PRESS N

Press 'Y' to return to the original factory settings. Follow the prompts on the screen for the particular application.

Press 'N' to allows viewing of the features in Section 1.

SECTION 3: TROUBLESHOOTING GUIDE

IMPORTANT NOTE

Use this as a general reference ONLY. Some screens may vary from those shown.

LOSS OF COMMUNICATION

COMMUNICATION LOST: RETRYING

This screen will appear if the programmer is unable to communicate with the vehicle's computer. If the problem is corrected, the programmer will automatically restart the programming process. Take these steps to correct the problem:

- 1. Make sure that the ignition key is in the RUN position and that the engine is not running.
- 2. Make sure that both ends of the cable are securely attached.
- 3. Wait at least five (5) minutes for the programmer to re-establish communication and program the vehicle.
- 4. If the three (3) steps above do not correct the problem, call the tech service line that appears on the programmer screen.

CABLE REMOVED WHILE PROGRAMMING

The programmer will lose power during programming if the cable is removed for any reason. If this happens, simply reconnect the cable. The programmer will identify the vehicle and then display these screens:

> PROGRAMMING WAS INTERRUPTED...

PROGRAMMING WILL CONTINUE NOW

The programmer will then continue programming from where it was interrupted.

IMPORTANT NOTE

If the programmer was interrupted during the Reading stage, programming will NOT be considered interrupted, and the programmer will proceed to Section 1 on page 3.

ATTEMPTING TO PROGRAM A DIFFERENT VEHICLE

If attempting to program the computer in another vehicle without first programming the original vehicle back to stock, the following screen will appear:

> CODE 91: PROGRAM YOUR VEHICLE BACK TO STOCK BEFORE PROGRAMMING ANOTHER VEHICLE

CALIBRATION NOT FOUND

If the vehicle has a factory program that is not recognized by the programmer, it cannot continue. This screen will appear:

> CODE 6D: CAL NOT FOUND

Use the included internet software (see page 3 for details) or call the tech service line that appears on the programmer screen. Please have the vehicle VIN number ready.

SOMEONE REPROGRAMS YOUR COMPUTER

If a service facility reprograms the vehicle's computer with an update, the optimized engine tuning and performance features changed with the programmer will be erased. However, all that needs to be done is to reconnect the programmer as shown in Section 1. If the new vehicle computer calibration is identified by the programmer, the options in Section 1 will be shown. If the new vehicle computer calibration can not be identified by the programmer, this screen will appear:

CODE 6D:	
CAL NOT FOUND	

Use the included internet software (see page 3 for details) or call the tech service line that appears on the programmer screen. Please have the vehicle VIN number ready.

BLANK SCREEN

If the programmer does not turn on, make sure that both ends of the cable are fully inserted. If the programmer still does not turn on, **check for a blown fuse in the vehicle fuse panel for either the cigarette lighter or the accessory circuit.** Replace with the proper amperage fuse.

What To Do Before Taking The Vehicle In For Service

Return Vehicle To The Stock Programming.

When the vehicle is taken to a dealership or repair shop for any service, the vehicle's computer must be returned to the original stock calibrations, prior to taking the vehicle for service. To do this, simply plug the programmer back into the diagnostic port and select the "Return To Stock" option on the programmer. This allows the original factory calibrations to be transferred from their stored location in the programmer and reinstalled into the vehicle's computer. This process returns the computer to factory stock and resets the programmer to allow the user to reprogram the vehicle AFTER repairs or service.

Why Is It Necessary To Return To The Stock Tuning?

The reason that this should be done is because the factory diagnostic equipment will only recognize factory calibration information. If that information is not stored it will automatically update the vehicle's computer to the original calibrations or to the most recent updated version, erasing the optimized tuning and other adjustable features that were installed by the programmer.

Reprogramming The Vehicle After Service Or Repair.

After the vehicle has been serviced or repaired, you may retune your vehicle. If the factory has reprogrammed the vehicle with a calibration that is new and not recognized by the programmer, the programmer will display a "Code 6D - Cal Not Found". If this occurs, the user will be instructed on how to update the programmer. This is a safety feature of the programmer. We do not want to rewrite any information if it is different from the calibrations currently stored in the vehicle. Following the instructions will allow the vehicle to have the latest and most current performance calibration that will match the updated factory version. Call the tech service line that appears on the screen for instructions on how to update the programmer. Due to the factory update of the computer, the programmer will have to be upgraded to match the new calibrations that have been installed in the vehicle's computer. The updated calibrations are at no cost but if shipping and/or freight charges are incurred these are the responsibilities of the vehicle owner.

PRODUCT WARRANTY

Factory Direct Limited Lifetime Warranty

This programmer is warranted against defects in materials or workmanship. The liability under this warranty shall be limited to the prompt correction or replacement of any defective part of the product which is determined to be necessary. This Limited Lifetime Warranty is to the **ORIGINAL** purchaser for as long as he or she owns the vehicle on which the product is originally installed, providing all the information requested is furnished. A copy of the original sales invoice or receipt MUST be retained. Without proper documentation, a service fee will be applied. Resold units and/or units with more than one Vehicle Identification Number (VIN) or Calibration files are not covered under this warranty. Shipping and/or handling fees are the responsibility of the vehicle owner unless the failure determined to be a defect in materials and/or workmanship. The correction or replacement of any defective part will be returned to the owner freight prepaid by common carrier.