

# Speedometer Calibrator Step-by-Step Installation Manual

## Table of Contents

Section 1 - Programming Instructions .....	2
Diagnostic Trouble Code (DTC) Information ...	2-4
Tire Size .....	4
Rear Gear Ratio .....	5
Report .....	5
Programming .....	6
 Section 2 - Back To Stock Or Changing Options .....	6
 Section 3 - Troubleshooting Guide .....	7

The installation process is 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 and select vehicle adjustment features.**

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 at 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 (DTCS)

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

If no DTCs are found, the programmer will then go to Engine Tuning. If any DTCs are found, this screen will now appear:

"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 [www.obdii.com](http://www.obdii.com).**

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 ▲ and ▼ arrows to point to a particular selection. Pressing the 'Y' button will then lock in the selection.

## TIRE SIZE

IF TIRE HEIGHT HAS BEEN CHANGED FROM ORIGINAL, PRESS Y  
IF TIRE HEIGHT HAS NOT BEEN CHANGED, PRESS N

Press 'Y' if the tires installed have an overall height that is different than the original factory tire size. This will allow for correction of speedometer and odometer readings for the new tire height. Pressing 'Y' will display this screen:

USE UP/DOWN ARROWS TO SELECT CORRECT TIRE HEIGHT, THEN PRESS Y TO SELECT OR N TO EXIT.

-- -- "

Use the ▲ and ▼ arrows to adjust the tire height in 1/4" increments. The minimum and maximum tire size will be shown on the programmer screen. Press the 'Y' button to lock in the new tire height.

## HOW TO DETERMINE TIRE HEIGHT

If the tire height is not known, ask a tire dealer or use the following steps below:

1. Place a chalk mark on the tire where it contacts the pavement and also mark the pavement. These marks should be at the center of the tire footprint pointing straight down to the pavement.
2. Roll the vehicle in a straight line until the chalk mark makes one revolution and is pointing straight down at the pavement again. Mark the pavement again at this new spot.
3. Measure (in inches) the distance between the two (2) marks on the pavement. Divide the measurement by 3.1416. This will give you the tire height in inches.

## REAR GEAR RATIO

IF REAR AXLE RATIO HAS BEEN CHANGED FROM ORIGINAL, PRESS Y  
IF REAR AXLE RATIO HAS NOT BEEN CHANGED, PRESS N

Press 'Y' if the installed rear gear has a ratio that is different than the original factory gear. This feature will recalibrate the speedometer/odometer readings and part-throttle shifting for automatic transmissions for the new gear ratio. This screen will now appear:

USE UP/DOWN ARROWS TO SELECT CORRECT REAR AXLE RATIO, THEN PRESS Y TO SELECT OR N TO EXIT.

--- --\_:\_:1

Use the ▲ and ▼ arrows to see all of the gear ratios available for the vehicle. Press 'Y' to lock in the gear ratio that is installed on the vehicle.

## REPORT

This screen will now show all the selections that have been made:

YOU HAVE CHOSEN

.....

Watch the selections scroll by on the screen. If all the selections are correct, press 'Y' to start programming the vehicle. If changes need to be made to any of the selection(s), press the 'N' button to start over from the beginning.

## 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 screen and call the tech support team at 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 tech support team at the provided tech service line from 8am-5pm, Central Time, Monday-Friday). 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.**

## 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.

## 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

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 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 when, 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.

### Reprogramming The Vehicle After Service Or Repair.

After the vehicle has been serviced or repaired, you may reprogram 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 1 Year Warranty

PRODUCT WARRANTY Factory Direct Limited 1 Year Warranty.. Effective January 1, 2020 replaces and supersedes previous product warranty policy.

Hypertech products are warranted against defects in materials or workmanship for one year from the date of purchase. Hypertech's liability under this warranty shall be limited to the prompt correction or replacement of any defective part of the product which HYPERTECH determines to be necessary. This Limited 1 Year Warranty is to the original purchaser providing all the information requested is furnished. You must retain a copy of your original sales invoice or receipt. Without proper documentation, a service fee will be applied. Third Party Resellers and Resold units are NOT covered under this warranty.