HYPERTECH

MAX ENERGY 2.0
POWER PROGRAMMER

Part #2000/2100
Reference Guide and Step by Step Installation Manual

Performance Chips & Programmers

PLEASE READ BEFORE USING PROGRAMMER!

The installation process is very easy and should not take long for programming and installation to be accomplished. To avoid problems with installation, observe the following recommendations:

- **It is very important in the programming process that the vehicle's battery is fully charged and there is no drain on the battery. 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.) If it's hot, roll the window(s) down BEFORE programming the vehicle.**

- **TURN OFF all electrical accessories (radio, heater/AC blower, wipers, etc.) that will power up when the key is in the "Run" position. Do not operate any electrical accessories during the programming process.**

- **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 vehicle owner's manual for location of radio, remote start, and amp fuses.)**

- **Unplug all accessories from cigarette lighter or any other auxiliary power port on the vehicle BEFORE programming (cell phone chargers, GPS, etc.)**

- **Disconnect any mobile devices from the entertainment system BEFORE programming (Bluetooth, USB chargers, smart phones, etc.)**

- **Daytime running lights should be disabled before programming. See vehicle owner's manual for information on how to turn off.**

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 programmer 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 unattended 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.

During the installation and programming if an error should occur, an error code and/or message will be displayed on the programmer screen, along with a phone number.

Most programming errors are caused by electrical interruptions. Please see Section 3 with more information for troubleshooting programming problems.

## SECTION 1: PROGRAMMING INSTRUCTIONS

Set the parking brake. 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 power up, and display the startup screen.
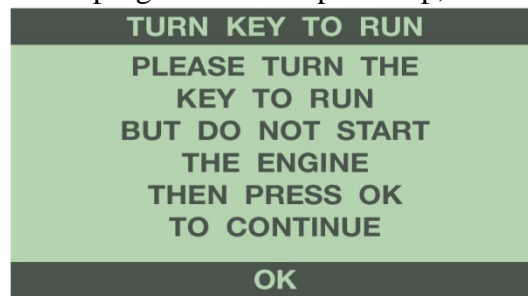

Turn the key to the Run position, and select "OK" using the middle bottom button. The Run position is the last key click before the engine will start. **DO NOT START THE ENGINE AT ANY TIME DURING THE PROGRAMMING PROCESS!** You should hear your seat belt chime and warning light on the instrument panel when the key is in this position. For keyless ignition/push button start vehicles, press the ignition button until it cycles to the Start/Run mode. The programmer will then read out the VIN number, and after a few seconds, display the Main Menu.

1-1: MAIN MENU
Use the left and right buttons at the bottom of the screen to scroll through the menu options. Press the middle button to 'Select' an option. Press the left button to go 'Back' to the last menu screen.
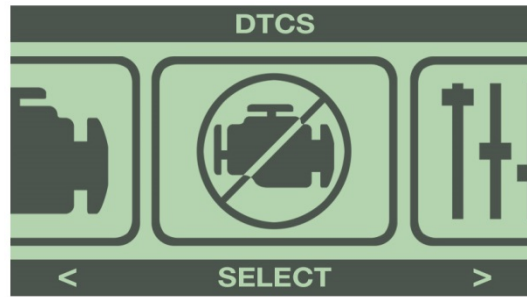
TUNING (All Vehicles):
This is the main option in the programmer. It has selections for the Hypertech Power Tuning, and other adjustable features.
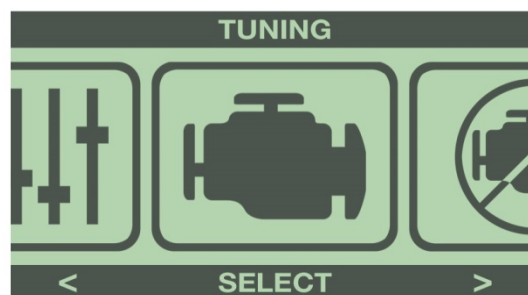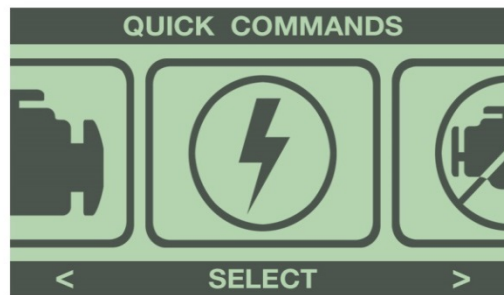
DTC's (All Vehicles):
This option checks for Diagnostic Trouble Codes (DTCs).

QUICK COMMANDS (Some Vehicles):
This option has selections for adjustable features that don't require programming.

SETUP INFO (All Vehicles):
This option displays various information about the programmer and your vehicle. It also allows adjustments to the display screen.
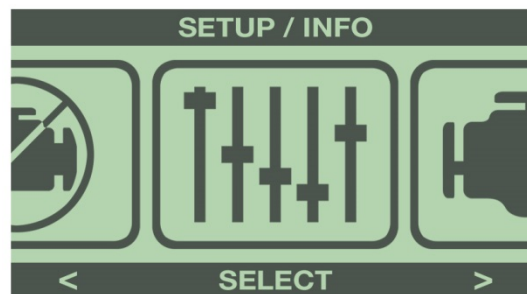
1-2: TUNING MENU
Press 'Select' to enter the Tuning menu from the Main Menu.
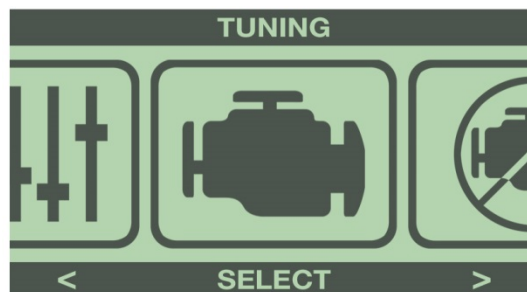
The programmer will display 3 tuning options:
PRESET TUNE- Select a previously saved tune for installation.
CUSTOMIZE TUNE- Select all Power Tuning and adjustable features available for the vehicle.
UNINSTALL TUNING- Select to reprogram all options back to factory stock settings.

```
                TUNING
    PRESET  TUNE
    CUSTOMIZE  TUNE            ^
    UNINSTALL  TUNING


                               V
    BACK       SELECT
```

When using the programmer for the first time, select the **CUSTOMIZE TUNE** option.

CUSTOMIZE TUNE
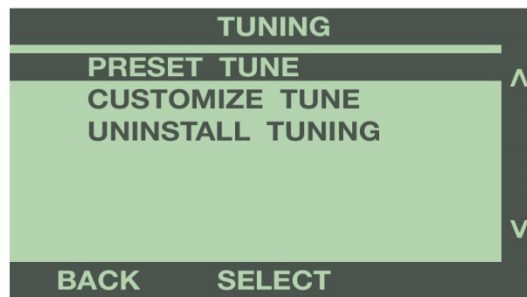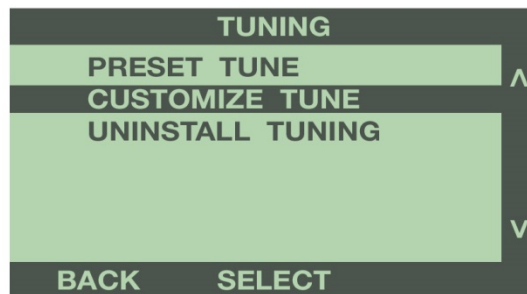Use the buttons to the right of the screen to highlight Customize Tune. Press the 'Select' button to display the Tuning Menu.

```
                TUNING
    PRESET  TUNE
    CUSTOMIZE  TUNE            ^
    UNINSTALL  TUNING


                               V
    BACK       SELECT
```
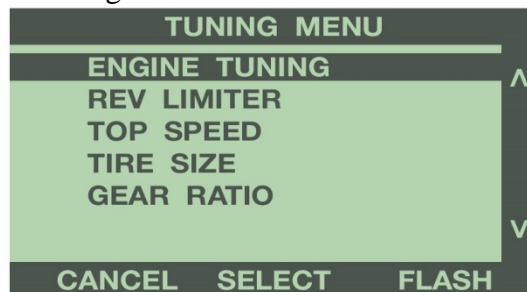
NOTE: Some adjustable features listed below are NOT available for all applications. The year, make, model, and engine of the vehicle will determine the available features. During the installation, only the available adjustable features for that particular application will appear on the programmer screen. Screens for each of the features may vary slightly from those shown.

To find the exact programming options available for your vehicle, see the application guide included on the instructions CD and select your year/make/model & engine at the top of the page.

ENGINE TUNING (All Vehicles)
Use the buttons to the right of the screen to highlight Engine Tuning. Press the 'Select'
button to install optimized engine tuning.

```
            TUNING  MENU
    ENGINE  TUNING
    REV  LIMITER               ^
    TOP  SPEED
    TIRE  SIZE
    GEAR  RATIO
                               V
    CANCEL   SELECT    FLASH
```

Gas Vehicles:
Use the buttons to the right of the screen to highlight the tune for the octane fuel being used.

```
        ENGINE  TUNING
    ━━━━━━━━━━━━━━━━━━━
      STOCK                  ∧
      PREMIUM
      REGULAR


                             ∨
      BACK      SELECT
```
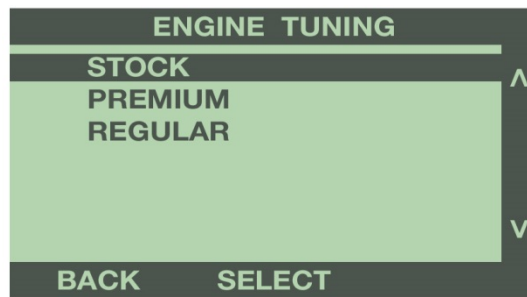
Press 'Select' to save the chosen tune. By selecting 'Stock', the programmer will install any additional features selected, but keep the stock engine tuning. For more information on Gas Engine Tuning options, see Programmer Features explanation in Section 4.

Diesel Vehicles:
Use the buttons to the right of the screen to highlight your choice of tunes; Stage 1, Stage 2, or Stage 3. Press 'Select' to save the chosen tune.
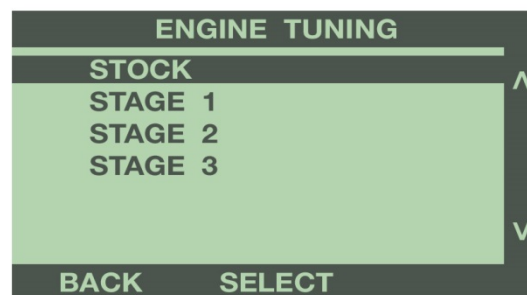
```
        ENGINE  TUNING
    ━━━━━━━━━━━━━━━━━━━
      STOCK                  ∧
      STAGE  1
      STAGE  2
      STAGE  3

                             ∨
      BACK      SELECT
```

By selecting 'Stock', the programmer will install any additional features selected, but keep the stock engine tuning. For more information on Diesel Engine Tuning options, see Programmer Features explanation in Section 4.

REV LIMITER (Gas Engines Only)
Use the buttons to the right of the screen to highlight Rev Limiter. Press the 'Select' button to adjust the engine rev limiter, in 100 RPM increments.
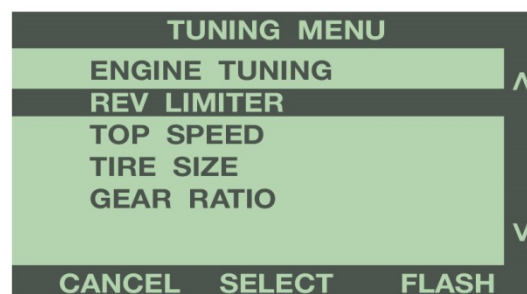
```
        TUNING  MENU
      ENGINE  TUNING
    ━━━━━━━━━━━━━━━━━━━
      REV  LIMITER           ∧
      TOP  SPEED
      TIRE  SIZE
      GEAR  RATIO
                             ∨
      CANCEL   SELECT    FLASH
```

Use the buttons to the right of the screen to scroll up or down, and highlight the value to increase or decrease the engine rev limiter. Press 'Select' to save the chosen value.

```
              REV  LIMITER
       ───────────────────────────
       STOCK
                                    Λ
        -500  RPM
        -400  RPM
        -300  RPM
        -200  RPM

                                    V

        BACK        SELECT
```
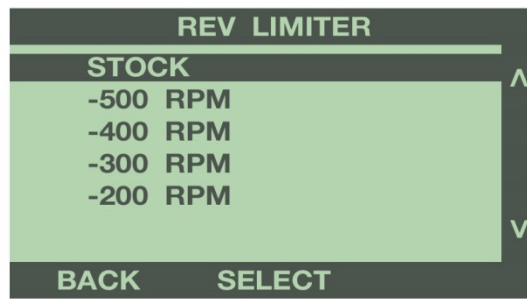
For more information on Engine Rev Limiter option, see Programming Feature explanation in Section 4.
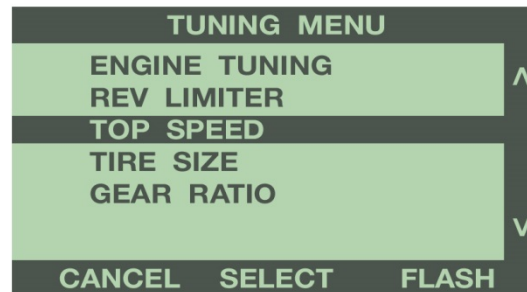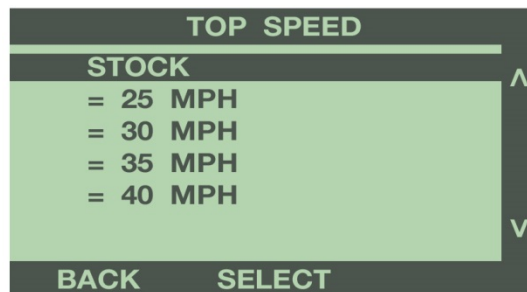
TOP SPEED (Most Vehicles)
Use the buttons to the right of the screen to highlight Top Speed. Press the 'Select' button to adjust the top speed limiter.
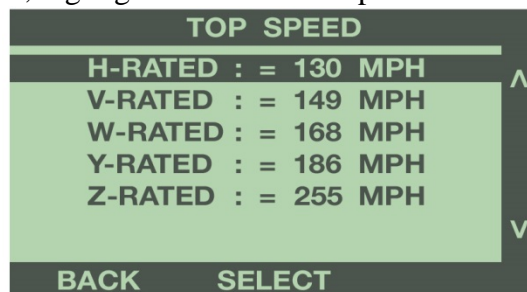
```
              TUNING  MENU
       ───────────────────────────
        ENGINE  TUNING
                                    Λ
        REV  LIMITER
       ───────────────────────────
        TOP  SPEED
        TIRE  SIZE
        GEAR  RATIO

                                    V

     CANCEL    SELECT       FLASH
```

Use the buttons to the right of the screen to scroll up or down, and highlight the desired MPH. Press 'Select' to save the chosen value.

```
              TOP  SPEED
       ───────────────────────────
       STOCK
                                    Λ
        =  25  MPH
        =  30  MPH
        =  35  MPH
        =  40  MPH

                                    V

        BACK        SELECT
```

Some applications allow the top speed limiter to be lowered from the factory setting. On vehicles with this option, the initial top speed settings that appear on the programmer will LOWER the top speed from 25 to 75 MPH. Selecting one of these options will keep the vehicle from exceeding the selected speed.

To raise the top speed limiter, highlight and select the speed that matches the speed rating of your tires.

```
              TOP  SPEED
       ───────────────────────────
       H-RATED  :  =  130  MPH
                                    Λ
        V-RATED  :  =  149  MPH
        W-RATED :  =  168  MPH
        Y-RATED  :  =  186  MPH
        Z-RATED  :  =  255  MPH

                                    V

        BACK        SELECT
```

Note: Raising the top speed limiter is not recommended for vehicles equipped with load rated tires. Serious damage or injuries could occur. For more information on the Top Speed Limiter option, see Programming Features explanation in Section 4.

TIRE SIZE (Most Vehicles)
Use the buttons to the right of the screen to highlight Tire Size. Press the 'Select' button to adjust the speedometer and odometer for non-stock tire size.

```
        TUNING  MENU
    ENGINE  TUNING
    REV  LIMITER            Λ
    TOP  SPEED
    TIRE  SIZE
    GEAR  RATIO
                            V
    CANCEL   SELECT    FLASH
```
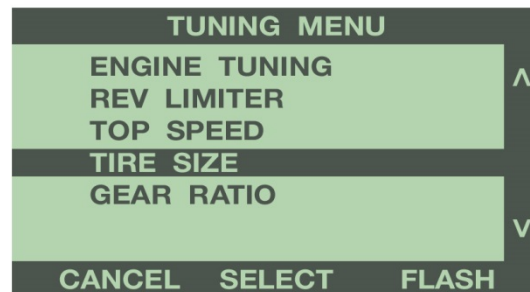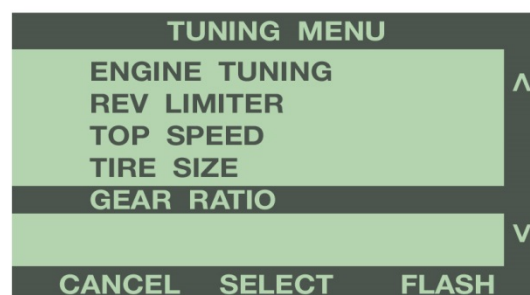
Use the buttons to the right of the screen to scroll up or down, and highlight the desired tire size, in ¼ inch increments. Press 'Select' to save the chosen value.
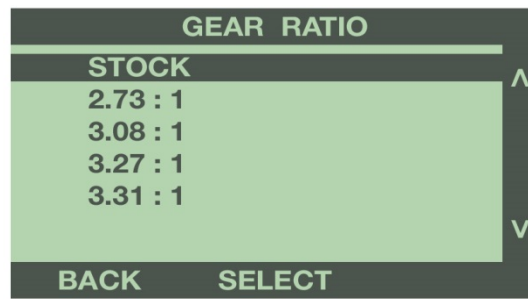
```
          TIRE  SIZE
    STOCK                   Λ
    24.00  IN
    24.25  IN
    24.50  IN
    24.75  IN
                            V
    BACK       SELECT
```

Note: Only select this feature if the vehicle has a different size tire than what was installed from the factory. For more information, see Programming Features explanation in Section 4.

GEAR RATIO (Most Vehicles)
Use the buttons to the right of the screen to highlight Gear Ratio. Press the 'Select' button to calibrate the speedometer and odometer if a non-stock rear gear ratio has been installed.

```
        TUNING  MENU
    ENGINE  TUNING
    REV  LIMITER            Λ
    TOP  SPEED
    TIRE  SIZE
    GEAR  RATIO
                            V
    CANCEL   SELECT    FLASH
```
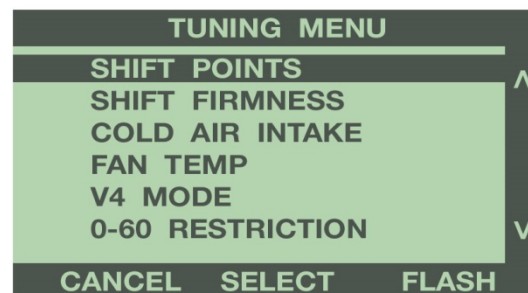
Use the buttons to the right of the screen to scroll up or down, and highlight the desired ratio. Press 'Select' to save the chosen value.

```
                GEAR  RATIO
    STOCK
                                        ^
     2.73 : 1
     3.08 : 1
     3.27 : 1
     3.31 : 1
                                        V

       BACK        SELECT
```

For more information on Gear Ratio option, see Programming Features explanation in Section 4.
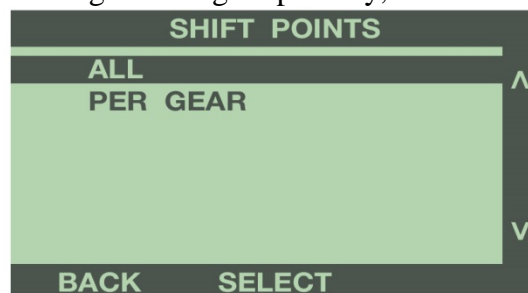
SHIFT POINTS (Most Automatic Transmission Equipped Gas Vehicles)
Use the buttons to the right of the screen to highlight Shift Points. Press the 'Select' button
to change the RPM at which the transmission shifts at wide open throttle.

```
                TUNING  MENU
    SHIFT  POINTS
                                        ^
    SHIFT  FIRMNESS
    COLD  AIR  INTAKE
    FAN  TEMP
    V4  MODE
    0-60  RESTRICTION                   V

    CANCEL    SELECT      FLASH
```
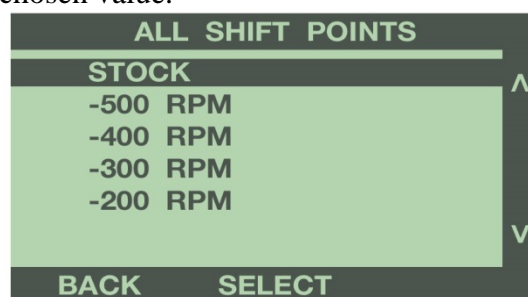
To adjust the shift points in all gears the same, select ALL from the Shift Points menu.
To adjust the shift points for each gear change separately, select PER GEAR from the Shift Points menu.
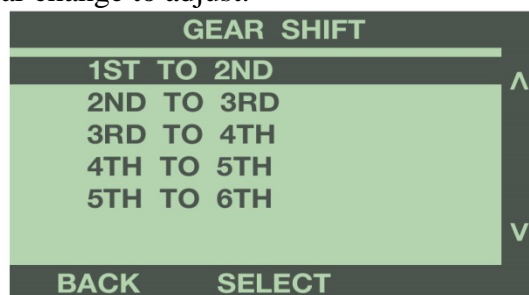
```
                SHIFT  POINTS
    ALL
                                        ^
    PER  GEAR



                                        V

       BACK        SELECT
```

ALL SHIFT POINTS: Use the buttons to the right of the screen to scroll up or down, and
highlight the value to increase or decrease the shift points, in 100 RPM increments. Press
'Select' to save the chosen value.

```
            ALL  SHIFT  POINTS
    STOCK
                                        ^
     -500  RPM
     -400  RPM
     -300  RPM
     -200  RPM
                                        V

       BACK        SELECT
```

Press the 'Back' button to go back to the Tuning Menu.

PER GEAR SHIFT POINTS: Use the buttons to the right of the screen to scroll up or down, and highlight the gear change to adjust.

```
        GEAR  SHIFT
━━━━━━━━━━━━━━━━━━━━━━━━
  1ST  TO  2ND             ∧
  2ND  TO  3RD
  3RD  TO  4TH
  4TH  TO  5TH
  5TH  TO  6TH
                           V

   BACK      SELECT
```

Press the 'Select' button, then use the buttons to the right of the screen to scroll up or down, and highlight the value to increase or decrease the shift points, in 100 RPM increments. Press Select to save the chosen value.
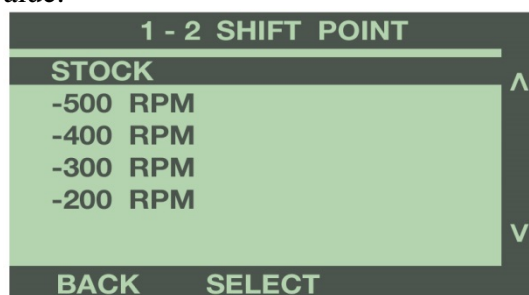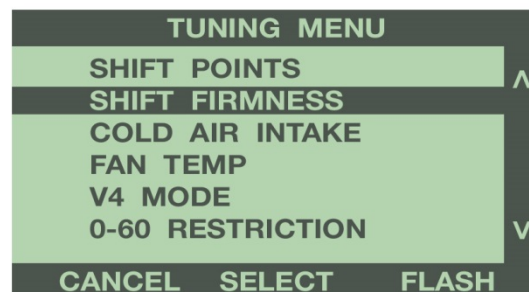
```
      1 - 2  SHIFT  POINT
━━━━━━━━━━━━━━━━━━━━━━━━
  STOCK                    ∧
  -500  RPM
  -400  RPM
  -300  RPM
  -200  RPM
                           V

   BACK      SELECT
```

Press the 'Back' button to go back to the Gear Shift menu. Repeat the procedure above for each gear change. Once you have made the desired changes for each gear, press the 'Back' button to return to the Tuning Menu. For more information on Shift Points options, see Programming Features explanation in section 4.

SHIFT FIRMNESS (Most Automatic Transmission Equipped Gas Vehicles)
Use the buttons to the right of the screen to highlight Shift Firmness. Press the 'Select' button to adjust the firmness at which the transmission shifts.

```
       TUNING  MENU
━━━━━━━━━━━━━━━━━━━━━━━━
  SHIFT  POINTS            ∧
  SHIFT  FIRMNESS
  COLD  AIR  INTAKE
  FAN  TEMP
  V4  MODE
  0-60  RESTRICTION        V

 CANCEL    SELECT    FLASH
```

Some vehicles have only one pre-determined setting for shift firmness, and will not have a selectable adjustment. If your vehicle has this setting, the programmer will display a Yes or No option. Highlight the desired choice, and press 'Select'. Some vehicles have the option to select between 25%, 50%, 75%, and 100% for the level in which to enhance shifting firmness.

To adjust the shift firmness in all gears the same, select ALL from the Shift Points menu. To adjust the shift firmness for each gear change separately, select PER GEAR from the Shift Points menu.
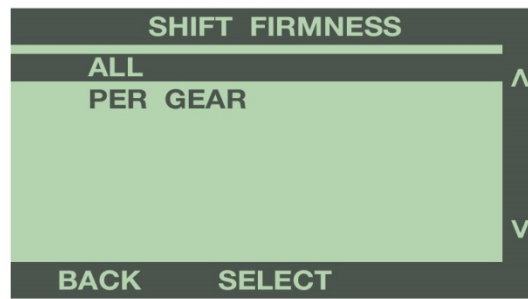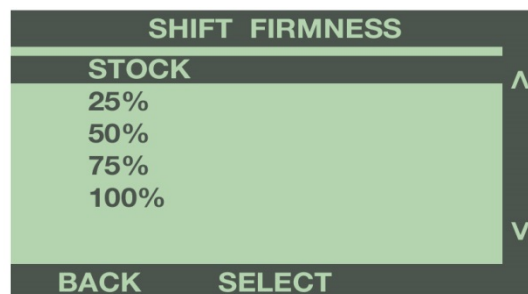
```
          SHIFT  FIRMNESS
  ALL                          ^
  PER  GEAR
                               v
      BACK      SELECT
```

ALL SHIFT FIRMNESS: Use the buttons to the right of the screen to scroll up or down, and highlight the percentage to increase or decrease the shift firmness. Press Select to save the chosen value.

```
          SHIFT  FIRMNESS
  STOCK                        ^
  25%
  50%
  75%
  100%
                               v
      BACK      SELECT
```
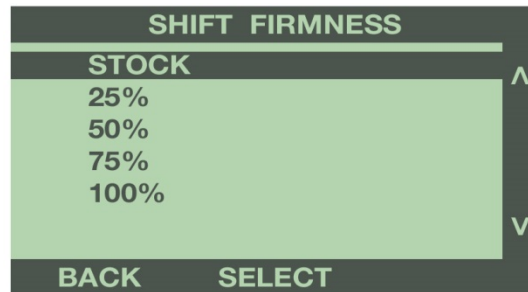
PER GEAR SHIFT FIRMNESS: Use the buttons to the right of the screen to scroll up or down, and highlight the gear change to adjust.

```
           GEAR  SHIFT
  1ST  TO  2ND                 ^
  2ND  TO  3RD
  3RD  TO  4TH
  4TH  TO  5TH
                               v
      BACK      SELECT
```
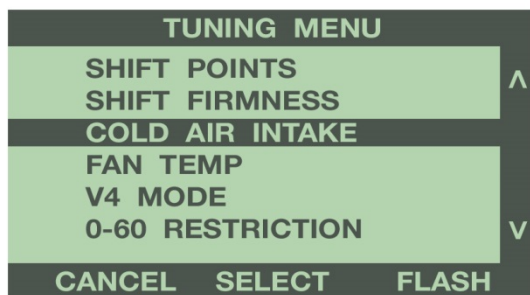
Press the 'Select' button, then use the buttons to the right of the screen to scroll up or down, and highlight the percentage to increase or decrease the shift firmness. Press 'Select' to save the chosen value.

```
          SHIFT  FIRMNESS
  STOCK                        ^
  25%
  50%
  75%
  100%
                               v
      BACK      SELECT
```

Press the 'Back' button to go back to the Gear Shift menu. Repeat the procedure above for each gear change. Once you have made the desired changes for each gear, press the 'Back' button to return to the Tuning Menu. For more information on Shift Firmness option, see Programming Features explanation in Section 4.

COLD AIR INTAKE (Some Vehicles)
This feature will only be listed if your vehicle requires a custom tune when using an aftermarket cold air intake. Use the buttons to the right of the screen to highlight Cold Air Intake. Press the 'Select' button to install custom tuning for a specific aftermarket air intake.

```
            TUNING  MENU
     SHIFT  POINTS
     SHIFT  FIRMNESS            ^
     COLD  AIR  INTAKE
     FAN  TEMP
     V4  MODE
     0-60  RESTRICTION          V
     CANCEL    SELECT      FLASH
```
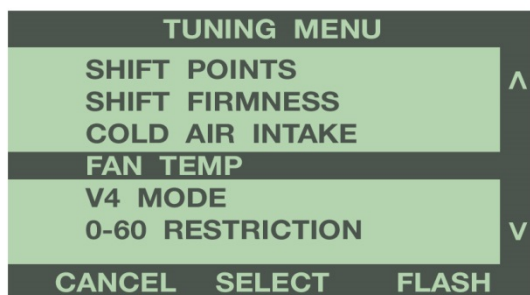
Use the buttons to the right of the screen to highlight the cold air intake installed on your vehicle. Select the Stock air intake if you have not installed an aftermarket air intake. Press 'Select' to save the chosen tune.
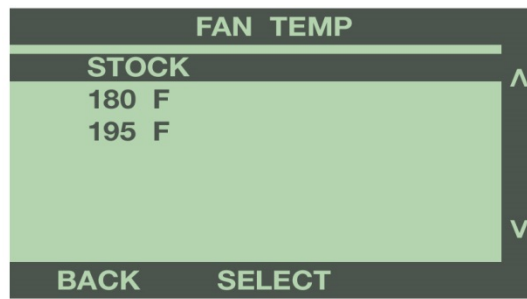
```
          COLD  AIR  INTAKE
     STOCK
     AEM                        ^
     AIRAID
     K&N
     STEEDA
     BBK                        V
     BACK       SELECT
```

For more information on the Cold Air Intake option, see Programming Features explanation in Section 4.

FAN TEMP (Some Vehicles)
Use the buttons to the right of the screen to highlight Fan Temp. Press the 'Select' button to adjust the temperature that the electric cooling fans turn on and off.

```
            TUNING  MENU
     SHIFT  POINTS
     SHIFT  FIRMNESS            ^
     COLD  AIR  INTAKE
     FAN  TEMP
     V4  MODE
     0-60  RESTRICTION          V
     CANCEL    SELECT      FLASH
```
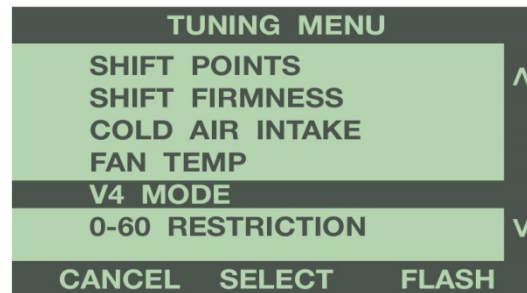
Use the buttons to the right of the screen to scroll up or down, and highlight the temperature to turn on the cooling fan. Press 'Select' to save the chosen value.
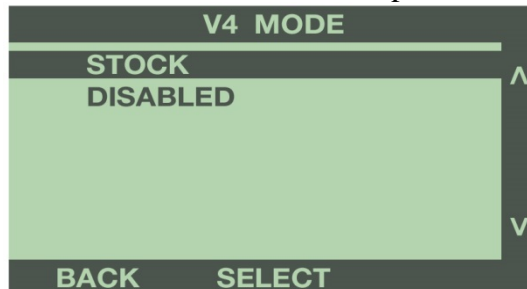
```
             FAN  TEMP
    ────────────────────────
      STOCK                    ^
      180  F
      195  F

                              V
    ────────────────────────
      BACK       SELECT
```

For more information on the Fan Temp option, see Programming Features explanation in Section 4.

V4 Mode (Some 2007- up GM Vehicles)
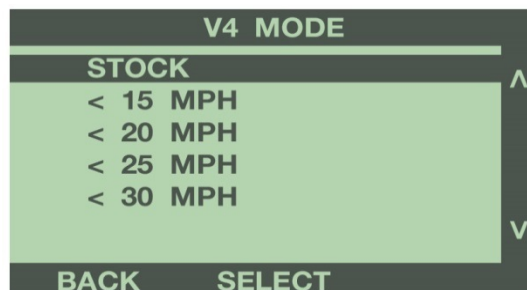Use the buttons to the right of the screen to highlight V4 Mode. This option disables the Active Fuel Management (AFM) system.

```
           TUNING  MENU
    ────────────────────────
      SHIFT  POINTS            ^
      SHIFT  FIRMNESS
      COLD  AIR  INTAKE
      FAN  TEMP
      V4  MODE
      0-60  RESTRICTION        V
    ────────────────────────
     CANCEL   SELECT      FLASH
```

To completely disable the V4 Mode, use the buttons to the right of the screen to scroll down, and highlight Disabled. Press the 'Select' button to save this option.

```
             V4  MODE
    ────────────────────────
      STOCK                    ^
      DISABLED



                              V
    ────────────────────────
      BACK       SELECT
```
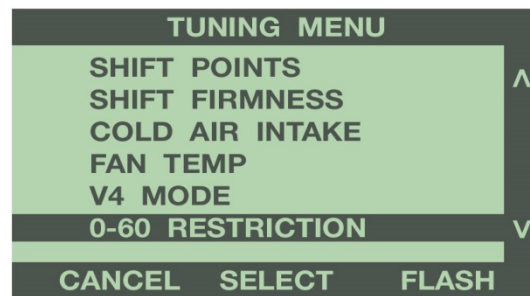
To adjust the minimum speed that the V4 Mode turns off, use the buttons to the right of the screen to scroll up or down, and highlight the desired speed. Press the 'Select' button to save this option.

```
             V4  MODE
    ────────────────────────
      STOCK                    ^
      <  15  MPH
      <  20  MPH
      <  25  MPH
      <  30  MPH
                              V
    ────────────────────────
      BACK       SELECT
```

For more information on Active Fuel Management option, see Programming Features explanation in Section 4.

0-60 RESTRICTION (Some Vehicles)
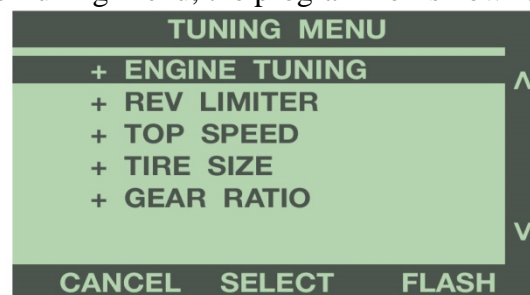Use the buttons to the right of the screen to highlight 0-60 Restriction.

```
        TUNING  MENU
    SHIFT  POINTS
    SHIFT  FIRMNESS            ^
    COLD  AIR  INTAKE
    FAN  TEMP
    V4  MODE
    0-60  RESTRICTION          V
    CANCEL    SELECT     FLASH
```

Use the buttons to the right of the screen to scroll down, and highlight Disabled. Press the 'Select' button to save this option.

```
        0-60  RESTRICTION
    STOCK
    DISABLED                   ^


                               V
        BACK       SELECT
```
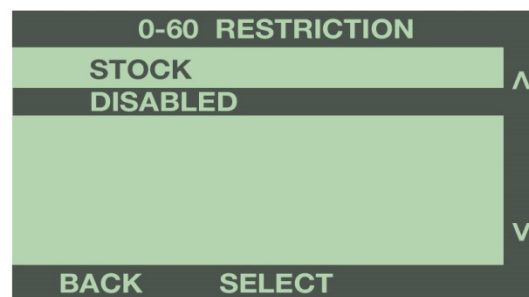
For more information on 0-60 Restriction option, see Programming Features explanation in Section 4.

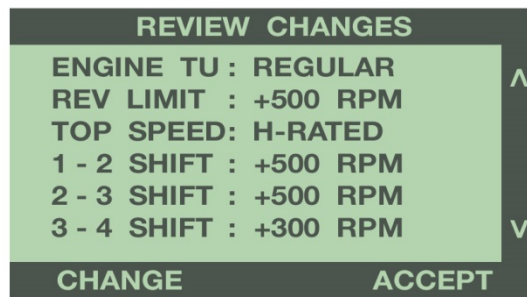# 1-3: SELECTION REVIEW & PROGRAMMING
The Tuning Menu will display a + sign next to each option that you selected to change. Once you have completed your selections from the Tuning Menu, the programmer is now ready to flash the vehicle's computer.

```
        TUNING  MENU
    +  ENGINE  TUNING
    +  REV  LIMITER            ^
    +  TOP  SPEED
    +  TIRE  SIZE
    +  GEAR  RATIO
                               V
    CANCEL    SELECT     FLASH
```

Press the 'Flash' button to continue.

REVIEW CHANGES
The next screen displays all of the Tuning Options for your vehicle, and the options selected. Use the buttons to the right of the screen to scroll up or down, and review your selections.

```
REVIEW  CHANGES
ENGINE TU : REGULAR        ^
REV  LIMIT  :  +500  RPM
TOP  SPEED:  H-RATED
1 - 2  SHIFT  :  +500  RPM
2 - 3  SHIFT  :  +500  RPM
3 - 4  SHIFT  :  +300  RPM   V
CHANGE              ACCEPT
```

To accept all tuning options, press 'Accept' to begin the programming process. To make changes to any option, select 'Change'.

PRESET TUNE

The programmer allows you to save up to 5 preset tunes. This feature will save a specific selection of programming options in the programmer memory. The preset tune can be selected from the Tuning Menu. If you wish to save the currently selected tuning options as a Preset Tune, select 'Yes'. If you don't want to save the selected options as a preset tune, select 'No'.

```
SAVE  OPTIONS?

DO  YOU  WANT
TO  SAVE  THESE
TUNING  OPTIONS
AS  A  PRESET?

NO                    YES
```
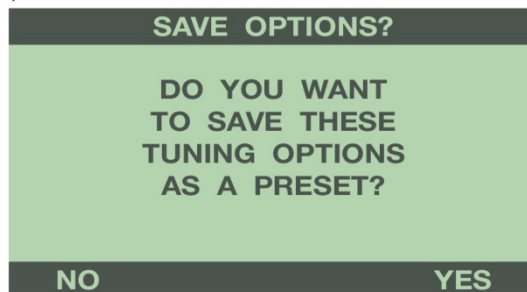
To save the currently selected tuning options, use the buttons to the right of the screen to scroll up or down and select any combination of letters or numbers. The 'Prev' and 'Next' buttons move the cursor left and right. Once you have selected a name, press 'Done' to continue.

```
PRESET  NAME?

USE  ARROWS  TO
ENTER  NAME :
▲
CUSTOM____
▼

PREV      DONE      NEXT
```
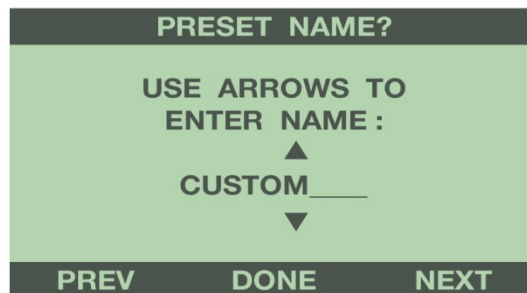
PROGRAMMING

Follow all of the messages on the programmer screen during the entire programming process for the vehicle. The programmer will prompt you to turn the key to the 'RUN' and 'OFF' position during this process. When turning the key to the 'RUN' position, it is important to make sure that you turn the key to the most forward position possible WITHOUT starting the vehicle.

IMPORTANT NOTE:

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, or turn the key off (unless instructed to by the programmer). **DO NOT START THE VEHICLE AT ANY TIME WHILE THE PROGRAMMER**
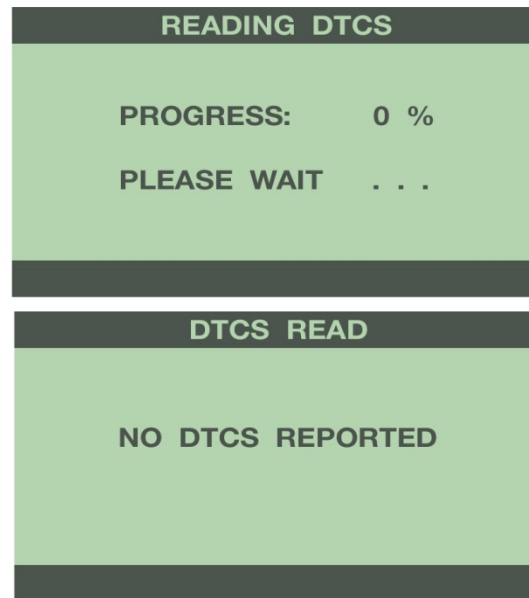
IS CONNECTED! If the unit stops programming or is interrupted, please make a note of any message(s) that appear on the programmer screen and call the provided tech service line.

IMPORTANT NOTE:
On certain applications, the instrument panel message center may light up, and random code information such as REDUCED ENGINE POWER, and other warning lights may display. This is a NORMAL step during the programming process for certain applications.

DIAGNOSTIC TROUBLE CODES (DTC'S)
Prior to starting the programming process, the programmer will check for any Diagnostic Trouble Codes (DTC's). If any DTC's are present, the programmer will display them. You can review the DTC's before clearing.

```
        READING  DTCS


    PROGRESS:      0 %

    PLEASE  WAIT    . . .
```

```
          DTCS  READ


       NO  DTCS  REPORTED
```
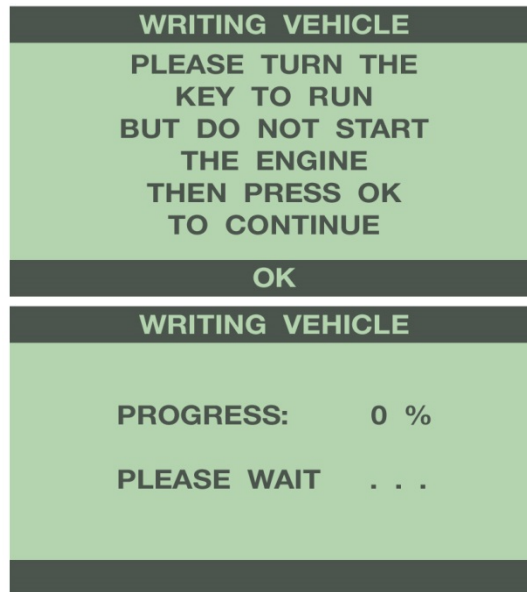
If the vehicle has any DTC's, the programmer will display the number of DTC's reported from the vehicle's computer. You can review the DTC's by pressing the 'Show' button. Before the programming process can begin, all DTC's must be cleared. To clear any DTC's, press the 'Clear' button. For more information on this feature, see the DTC section. Once the DTC's are cleared, the programmer will proceed to Reading Vehicle.

```
          DTCS  READ

       01  DTCS  REPORTED

        DTCS  MUST  BE
       CLEARED  BEFORE
         PROGRAMMING
    BACK      CLEAR      SHOW
```
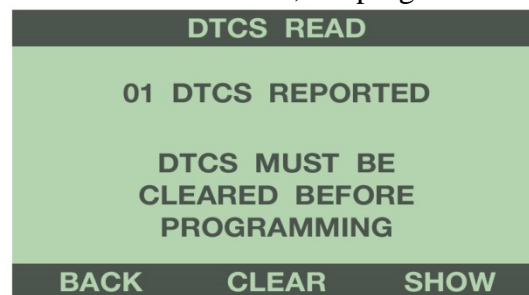
If the vehicle has no DTCs, the programmer will proceed immediately to Reading Vehicle mode.

```
         READING  VEHICLE

       PROGRESS:       0 %

       PLEASE  WAIT     . . .
```
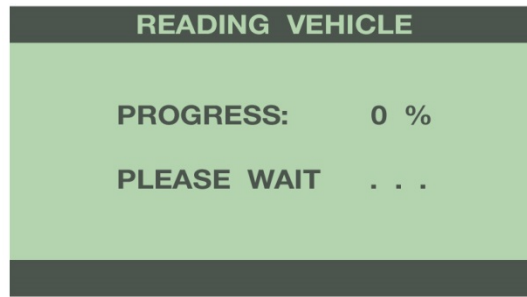
Once the programmer has completed the reading process, it will proceed to the Writing Vehicle mode. Continue to follow the messages on the screen. You may be prompted to turn the key to the 'RUN' and 'OFF' position during this process.

```
         WRITING  VEHICLE
         PLEASE  TURN  THE
            KEY  TO  RUN
         BUT  DO  NOT  START
            THE  ENGINE
         THEN  PRESS  OK
            TO  CONTINUE
               OK
```

```
         WRITING  VEHICLE


       PROGRESS:       0 %

       PLEASE  WAIT     . . .
```

```
            COMPLETE


         PLEASE  TURN  THE
            KEY  TO  OFF
         THEN  PRESS  OK
            TO  CONTINUE
               OK
```

After the programmer has successfully programmed the vehicle, follow the instructions on the screen until you see the Successful screen.

```
            SUCCESSFUL


         PLEASE  UNPLUG
          OR  PRESS  OK
         TO  RESTART  PRGMR

               OK
```

It is now safe to unplug the programmer from the vehicle and start the engine. Make sure the "Check Engine" light on the instrument cluster goes out. Warm up the engine and make sure it is running smoothly.

FOR ONSTAR, SATELLITE RADIO, or AFTERMARKET ELECTRONICS EQUIPPED VEHICLES:
Plug any connector(s) back into the original location and reinstall any fuses, panels, and/or other interior components that were removed prior to programming.
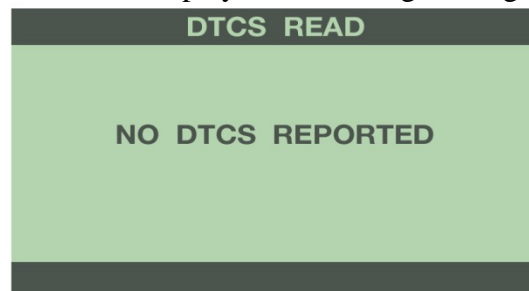
1-4: DTC MENU

From the Main Menu, press the left or right arrow buttons to scroll for the DTC menu. Press 'Select' to enter the DTC menu from the Main Menu.
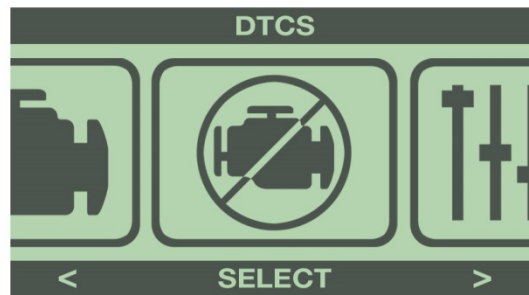

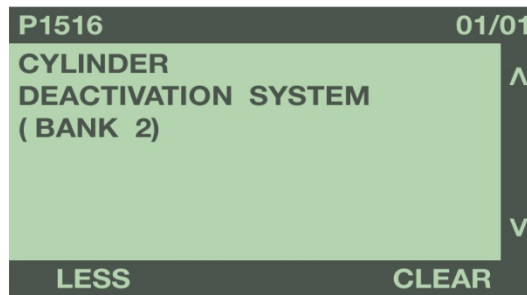The programmer will immediately begin reading out the DTC's from the vehicle's computer.
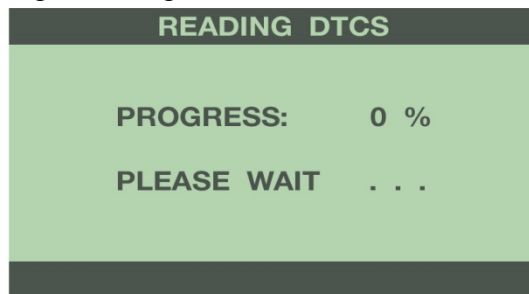
If no DTC's are present, the programmer will display the following message.

If the vehicle has any DTC's, the programmer will display all DTC's, and the total number of DTC's reported from the vehicle's computer. To clear all DTC's, press the 'Clear' button. To see a definition of each DTC, press the 'More' button.
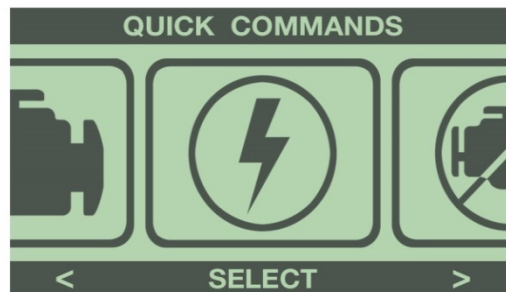
```
              DTCS  REPORTED
P1516

01  DTCS




       BACK       MORE       CLEAR
```
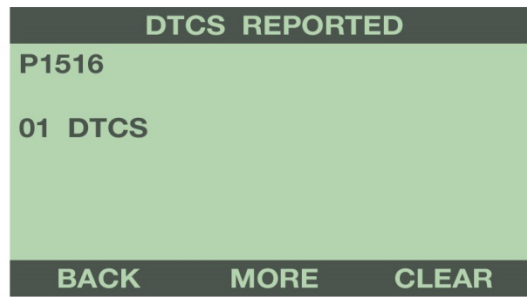
Use the buttons to the right of the screen to scroll up or down and review each DTC. The programmer will display a description of the DTC.

```
P1516                            01/01
CYLINDER
                                    Λ
DEACTIVATION  SYSTEM
( BANK  2)



                                    V
       LESS                    CLEAR
```
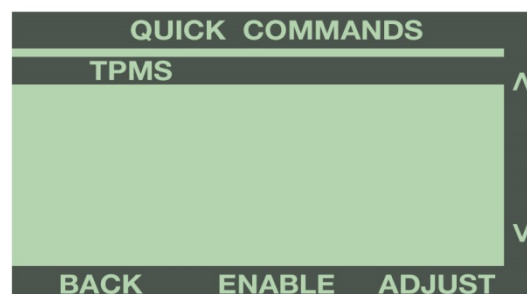
Once you have reviewed each DTC, you can clear them by selecting 'Clear'.

1-5: QUICK COMMANDS
From the Main Menu, press the left or right arrow buttons to scroll for the Quick Commands menu. Press 'Select' to enter Quick Commands menu from the Main Menu.
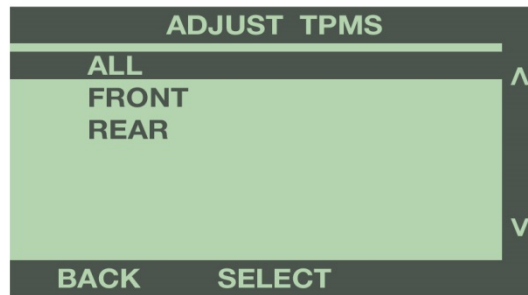
```
        QUICK  COMMANDS




       <        SELECT        >
```

The programmer will display the following menu.

```
        QUICK  COMMANDS
       TPMS
                                    Λ




                                    V
       BACK     ENABLE    ADJUST
```
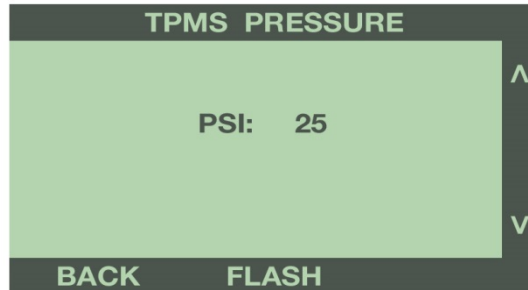
TPMS ADJUST (Most Vehicles)
This feature allows instant adjustment of the minimum pressure for tire pressure monitor sensor (TPMS) alarm. Select 'Adjust' to display the Adjust TPMS menu. Use the buttons to the right of the screen to scroll up or down, and highlight the wheels to adjust. Press the 'Select' button to adjust the TPMS alarm minimum pressure.
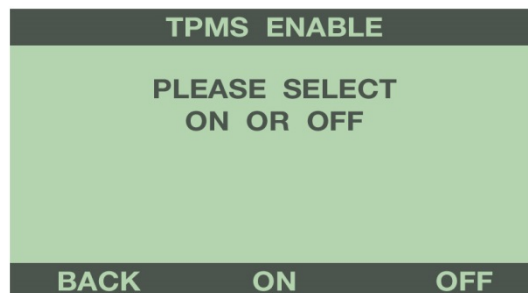
```
               ADJUST  TPMS
          ALL                         ^
          FRONT
          REAR


                                      V
          BACK        SELECT
```

Use the buttons to the right to raise or lower the minimum tire pressure to activate the TPMS alarm. Select 'Flash' to program the change.

```
             TPMS  PRESSURE
                                      ^


                PSI:    25


                                      V
          BACK        FLASH
```

TPMS ENABLE (Most Vehicles)
Press the button on the bottom to fully enable or disable the TPMS alarm.

```
              TPMS  ENABLE

              PLEASE  SELECT
                ON  OR  OFF



          BACK        ON        OFF
```

For more information on the TPMS option, see Programming Features explanation in Section 4.

1-6: SETUP/INFO
From the Main Menu, press the left or right arrow buttons to scroll for the Setup/Info menu. Press 'Select' to enter the Setup/Info menu from the Main Menu.
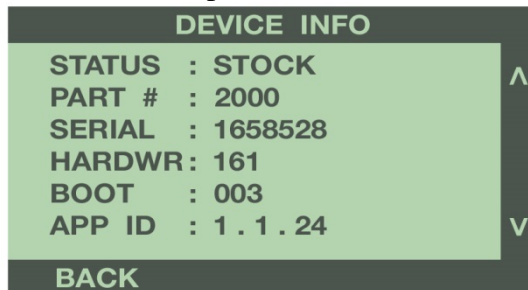
```
              SETUP / INFO




          <         SELECT        >
```
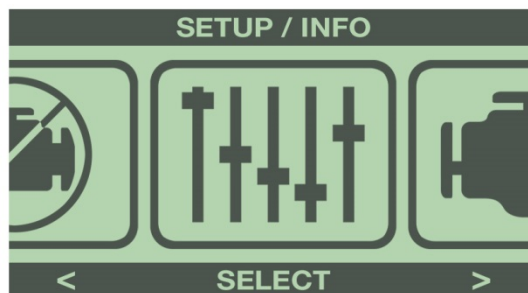
DEVICE INFO

Use the buttons to the right of the screen to highlight Device Info. Press the 'Select' button to display the Device Info menu.
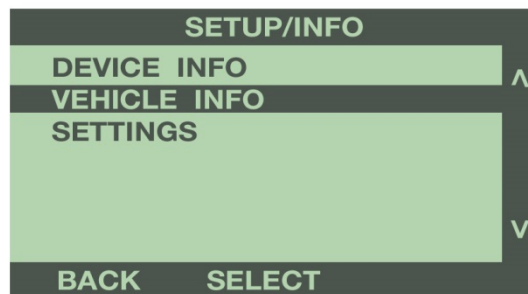
```
             SETUP / INFO
         DEVICE  INFO              ^
         VEHICLE  INFO
         SETTINGS


                                   V
         BACK        SELECT
```

Use the buttons to the right of the screen to scroll up or down and review the device info.

```
             DEVICE  INFO
      STATUS  : STOCK              ^
      PART #  : 2000
      SERIAL  : 1658528
      HARDWR : 161
      BOOT    : 003
      APP  ID  : 1 . 1 . 24        V

         BACK
```
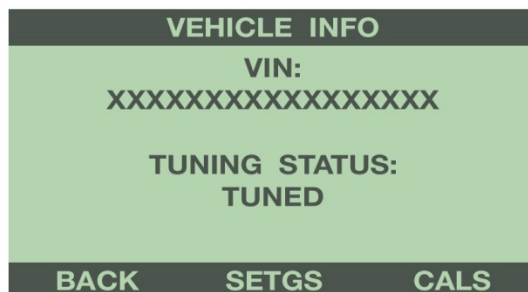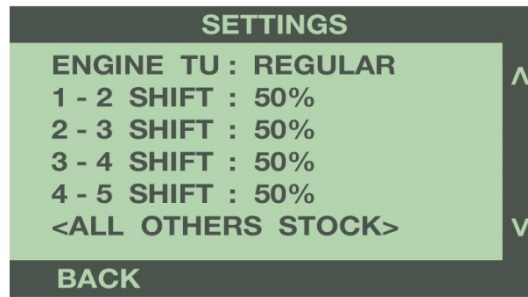
VEHICLE INFO

Use the buttons to the right of the screen to highlight Vehicle Info. Press the 'Select' button to display the Vehicle Info menu.

```
             SETUP/INFO
         DEVICE  INFO              ^
         VEHICLE  INFO
         SETTINGS


                                   V
         BACK        SELECT
```

The Vehicle Info menu displays the VIN number of the vehicle that the programmer was last connected to, and the current status of the programmer.

```
             VEHICLE  INFO
                  VIN:
         XXXXXXXXXXXXXXXX

             TUNING  STATUS:
                  TUNED


         BACK       SETGS        CALS
```
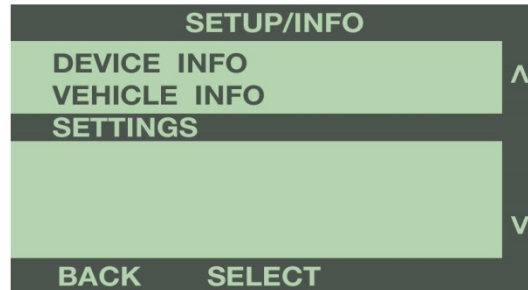
Select 'Setgs' to view the current options that are programmed in the vehicle. Select 'Back' button to return to the previous menu.

```
                    SETTINGS
        ENGINE  TU :  REGULAR        ∧
        1 - 2  SHIFT :  50%
        2 - 3  SHIFT :  50%
        3 - 4  SHIFT :  50%
        4 - 5  SHIFT :  50%
        <ALL  OTHERS  STOCK>          V

             BACK
```

SETTINGS
Use the buttons to the right of the screen to highlight Settings. Press the 'Select' button to display the Settings menu.

```
                   SETUP/INFO
        DEVICE  INFO                 ∧
        VEHICLE  INFO
        SETTINGS


                                      V
           BACK        SELECT
```
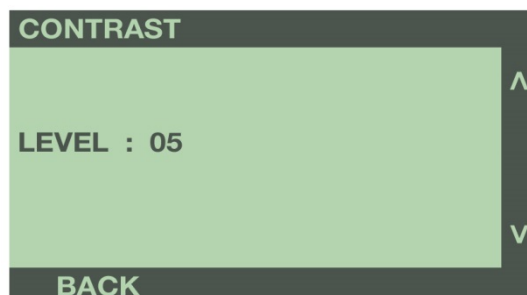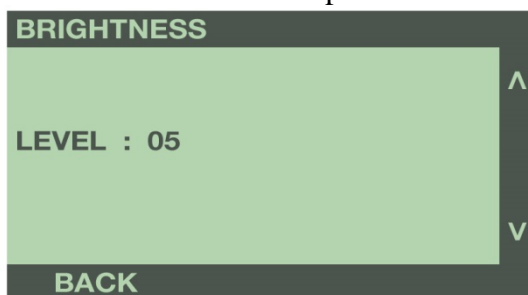
BRIGHTNESS & CONTRAST
Use the buttons to the right of the screen to highlight the setting to adjust. Press the 'Select' button to display the selected setting.

```
                    SETTINGS
        BRIGHTNESS                   ∧
        CONTRAST



                                      V
           BACK        SELECT
```
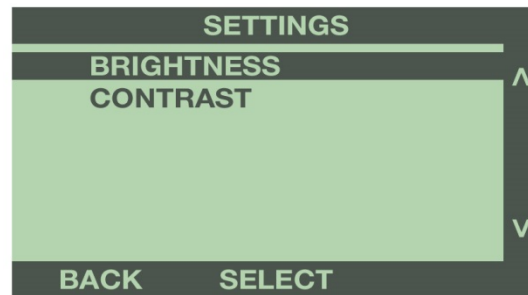
Use the buttons to the right of the screen to adjust the brightness or contrast of the display screen, from 1 to 10. Press the 'Back' button to return to the previous menu.

```
    BRIGHTNESS                        CONTRAST
                          ∧                              ∧

    LEVEL : 05                        LEVEL : 05

                          V                              V
        BACK                              BACK
```

SECTION 2: PROGRAMMING VEHICLE BACK TO STOCK, CHANGING TUNING OPTIONS, AND SELECTING PRESET TUNES

Reconnect the programmer to the vehicle as in Section 1, and follow the messages on the screen until the Main Menu appears. Select the Tuning option from the Main Menu.
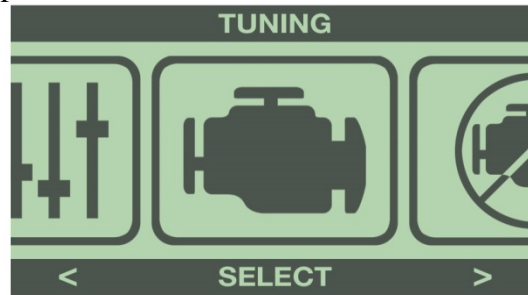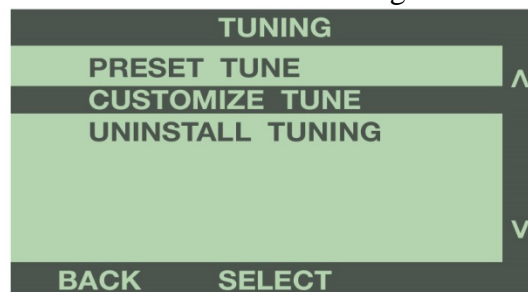

BACK TO STOCK

To return the vehicle completely to factory stock settings, select 'Uninstall Tuning' from the Tuning menu. Follow the Programming instructions from Section 1.
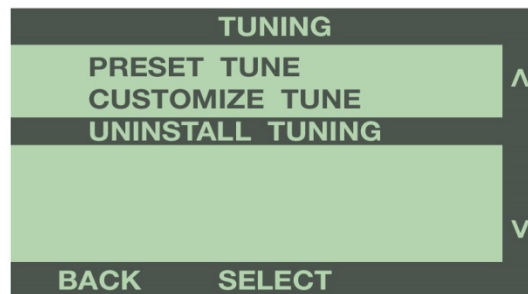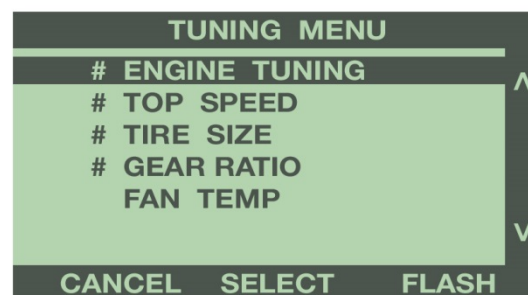

CHANGING OPTIONS

To change tuning options, select Customize Tune from the Tuning menu.

The Tuning Menu will display a hash tag **'#'** next to the options that were selected for the previous programming session. To make changes, follow the Tuning instructions from Section 1.
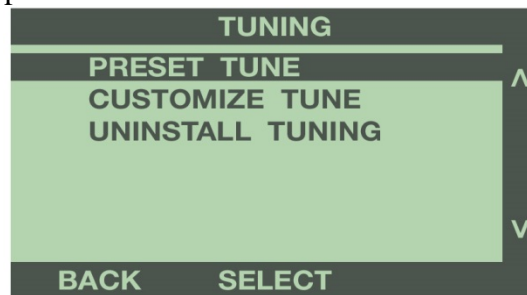

Note: All tuning options default to 'Stock' settings, regardless of what tuning options are currently
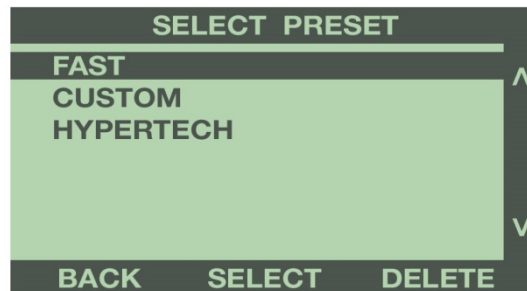
programmed in the vehicle. You will need to select each option again, even if you aren't making a change from the current setting.
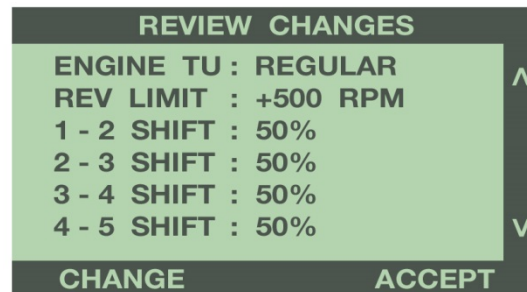
PRESET TUNE
To flash a previously saved tune, use the buttons to the right of the screen to highlight Preset Tune. Press the 'Select' button to bring up a list of preset tunes.

```
              TUNING
      ┌──────────────────────┐
      │  PRESET  TUNE        │  ^
      │  CUSTOMIZE  TUNE     │
      │  UNINSTALL  TUNING   │
      │                      │
      │                      │  V
      │                      │
      │  BACK      SELECT    │
      └──────────────────────┘
```

Use the buttons to the right of the screen to highlight a Preset Tune, and press 'Select'.

```
           SELECT  PRESET
      ┌──────────────────────┐
      │  FAST                │  ^
      │  CUSTOM              │
      │  HYPERTECH           │
      │                      │
      │                      │  V
      │                      │
      │  BACK    SELECT   DELETE │
      └──────────────────────┘
```

Use the buttons to the right of the screen to review the Preset Tune options.

```
          REVIEW  CHANGES
      ┌──────────────────────┐
      │  ENGINE  TU :  REGULAR  │  ^
      │  REV  LIMIT  :  +500 RPM│
      │  1 - 2  SHIFT :  50%    │
      │  2 - 3  SHIFT :  50%    │
      │  3 - 4  SHIFT :  50%    │
      │  4 - 5  SHIFT :  50%    │  V
      │  CHANGE           ACCEPT│
      └──────────────────────┘
```

Select 'Change' to make changes to the tuning options. Select 'Accept' to continue with programming.

SECTION 3: TECHNICAL INFORMATION & TROUBLESHOOTING

3-1: 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, follow the Back To Stock instructions in Section 2. 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 "Update Required" message. 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. There is no charge for calibration updates.

3-2: TROUBLESHOOTING GUIDE
VEHICLE NOT SUPPORTED
The following message is displayed when the programmer does not recognize the vehicle, along with an error code: **"THIS VEHICLE IS NOT SUPPORTED FOR PROGRAMMING**
Verify that the vehicle year/make/model/engine shows to be supported with the programmer part number. The part number is located on the label on the back of the programmer, and on the end of the box. If the vehicle is supported, the programmer may need to be updated to the latest revision to work on your vehicle. See Section 5 for instructions on how to update your tuner.

LOSS OF COMMUNICATION
The following message will appear if the programmer is unable to communicate with the vehicle's computer. **"AN ERROR OCCURRED DURING VEHICLE PROGRAMMING;**
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 before restarting the programming process.

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, and follow the messages on the programmer.

ATTEMPTING TO PROGRAM A DIFFERENT VEHICLE

Code 0125: VIN Mismatch will appear if attempting to program the computer in another vehicle without first programming the last vehicle it was used on back to stock. Return the previous vehicle back to stock, following the Back To Stock procedure in Section 2.

UPDATE REQUIRED

There are several instances where an update may be required to use the programmer. The following codes require an update. The programmer will display a message that it needs to be updated. The programmer can be updated via the internet using the Hypertech Tuner Update Software, and the supplied USB cable. See Section 5 for instructions on how to update your tuner.

Code 01C8: Stock calibrations not supported in programmer
Code 0128: Needs preloaded tune (2011- up GM Duramax diesels)

BLANK SCREEN

If the programmer does not power up, 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.

3-3: Tuning Features & Options

GAS ENGINE TUNING

This option installs the Hypertech Power Tuning, based on the octane of fuel your vehicle is using. Hypertech Power Tuning is a rigorous procedure that maximizes performance by optimizing the engine's air/fuel ratio and spark timing. Hypertech Power Tuning doesn't just focus on the power you'll gain at wide-open throttle. The engine performance under normal driving is also optimized. This means that there is no need to switch between a performance, economy, or tow tune.

> **OCTANE LEVELS**
> Regular Fuel = 87 octane minimum
> Premium Fuel = 91 octane minimum
>
> **PERFORMANCE**
> Hypertech's full spectrum tuning optimizes the power curve point-by-point, at all RPM's and throttle positions. This tuning method takes hundreds of dyno pulls for each vehicle and further testing is done at the track and on the street to ensure maximum horsepower, torque, and throttle response for just off idle to wide-open throttle, while maintaining safe engine and drivetrain parameters.
> Higher compression ratio engines and engines with superchargers or turbo chargers were designed to use only premium octane, so only one (1) Power Tuning program for premium octane is provided for most vehicles. But, if your car or truck came from the factory capable of using more economical regular octane, then two (2) optimized tuning programs are provided: one for premium, and the other for regular. In most cases, Hypertech's exclusive Power Tuning for regular octane provides excellent power gains, almost as much power as premium octane. If you are using premium octane, and you want all-out, maximum power, then select premium octane Power Tuning.
>
> Some vehicles come with the option for (2) premium tunes, one for 91 octane, and one for 93 octane. On these particular vehicles, there was enough measurable gain from 91 to 93 to offer both options.
>
> **FUEL ECONOMY**
> Hypertech engine tuning is more efficient, and the added torque during normal driving gives an even better throttle response. With the engine creating more torque, you use less throttle to maintain cruising

speeds, which can lead to better fuel economy. With the optimization focused on the specific fuel octane for each tune, you should see fuel mileage increases with all octane levels.

TOWING
All Hypertech tunes are optimized for towing. The Max Energy tuning is the only tuning on the market that doesn't have to offer limited power tunes for fuel economy or towing levels. Our tuning is safe for hauling and towing the maximum weight designated by the vehicle's manufacturer. We focus on efficiency rather than a certain power output, so there are no towing restrictions other than the vehicle manufacturer's maximum allowed capacity.

E-85/FLEX FUEL VEHICLES
We recommend premium octane tuning for vehicles that are factory equipped to use E-85 fuel. The improved engine tuning will increase the part-throttle efficiency and wide-open throttle performance compared to the factory tuning.

Warning: Do not attempt to use the Hypertech premium fuel tunes with any fuel less than 91 octane. This could result in severe engine damage.

DIESEL ENGINE TUNING
The Max Energy 2.0 offers three (3) stages of Power Tuning for diesels. Even the highest power level, Stage 3, maintains safe EGT's while towing the maximum weight specified by the vehicle's manufacturer. Our Stage 3 tuning offers the most powerful tune that maintains engine, turbo, and fuel system efficiency without disregarding the integrity of other powertrain components. The Stage 2 and Stage 1 tuning offers the same level of efficiency at more moderate power levels, which allows you to choose the tuning level that fits your driving style. For instance, there may be times when you don't want or need maximum power, like when the streets are icy or wet.

TOWING
All Hypertech tunes are optimized for towing. The Max Energy tuning is the only tuning on the market that doesn't have to offer reduced power tunes for fuel economy or towing levels. Our tuning is safe for hauling and towing the maximum weight designated by the vehicle's manufacturer. We focus on efficiency rather than a certain power output, so there are no towing restrictions other than the vehicle manufacturer's maximum allowed capacity.

The Stage 3 tune is safe to tow up to the vehicle's maximum Gross Combined Weight Rating (GCWR). If you are exceeding the vehicle's GCWR, we recommend using the Stage 2 or Stage 1 tune.

PERFORMANCE
The Stage 3 tune is the most powerful tune available in the Max Energy 2.0. We make hundreds of dyno runs to optimize every point over the entire RPM band while ensuring EGT's remain in a safe range, and keeping soot and smoke levels to a minimum.

FUEL ECONOMY
Fuel economy can vary based on driving conditions, vehicle loads, and driver habits. Most users that tow heavy loads, 8,000 lbs or more, report that they get the best fuel economy using Stage 3. By utilizing the maximum power, the vehicle uses less fuel to accelerate and maintain cruising speeds without the torque converter un-locking, and the transmission downshifting to a lower gear. Most users that do not tow, or sometimes tow light loads, report they get the best fuel mileage using either Stage 1

or Stage 2. The best way to determine the tune that will give you the best fuel economy is to try each setting.

TRANSMISSION TUNING
Allison Transmissions (2001-2007 LB7, LLY, LBZ): The Allison transmission and controller on the LB7, LLY, and LBZ GM diesel trucks is a very complicated piece of technology. The controller is constantly monitoring the transmission performance and adjusts the operating pressures in small increments to ensure the longevity of the transmission. The additional power of the Hypertech tuning may cause the transmission to slip while the controller relearns the new torque output of the Hypertech tune. The shifting will return to normal after several miles of normal driving. This may also occur when changing between different stages of Hypertech tuning.

Allison Transmissions (2007-2015 LMM, LML): Each stage of Hypertech tuning for the LMM and LML GM diesel trucks also adjusts the Allison transmission calibration with the necessary parameter changes to handle the additional power. This results in a noticeable improvement in shifting feel and drivability that matches the increase in power rather than relying on the transmission controller to slowly adjust the settings.

Ford Automatic Transmissions (2006-2015 5R100/5R110W/6R140): Each stage of Hypertech tuning for the Ford auto trans diesel trucks also adjusts the transmission calibration with the necessary parameter changes to handle the additional power. This results in a noticeable improvement in shifting feel and drivability that matches the increase in power, while protecting the transmission against excessive slippage.

DIESEL PARTICULATE FILTER (DPF)
None of the Stages of Hypertech tuning will increase exhaust soot and therefore does not increase the frequency of regenerations. Hypertech's tunes are designed to work with all the factory emissions equipment in place. Disabling or removing the DPF is illegal and enforced with hefty EPA fines.

AFTERMARKET PARTS (Gas and Diesels)
Hypertech tuning works well with popular bolt-on aftermarket parts. If you install an aftermarket air intake or exhaust system, Hypertech's Power Tuning will automatically adjust the engine control parameters to take advantage of the fact that the engine is less restrictive. Any significant power adders, like superchargers, turbochargers, nitrous, etc, would definitely require a custom tune. For reference, any racing parts that would set a DTC with the stock tune would also set the same DTC with the Hypertech tunes.

COLD AIR INTAKE TUNING (Gas and Diesels)
Some vehicles require a custom tune when installing an aftermarket cold air intake. This is necessary to correct the mass air flow (MAF) sensor readings and to take advantage of the increased airflow. Aftermarket air intakes change the air velocity and the volume of air passing over the MAF sensor, due to the shape and size of the ducting around the sensor, and even the type of air filter used. This can cause errors in the ECU calculations for the quantity of air entering the engine. By correcting these errors, it ensures that the Hypertech tuning will function properly with the air intake installed, and optimize the engine performance with this modification.

REV LIMITER
This option raises or lowers the maximum RPM limiter of the engine. The key to faster acceleration is to use more of your engine's horsepower. The Max Energy 2.0 lets you adjust your engine's rpm limiter to improve performance and driving fun. The stock computer is programmed to shut down the engine when it reaches the redline. But if you have modified your vehicle to increase its high-speed performance, more rpm means more power. When you shift gears at the stock rpm limit, the engine falls back to below the peak of its horsepower

curve. When you extend the engine's rpm range with the Max Energy 2.0, your engine has more power available after gear changes. And by keeping the engine in the "sweet spot" of its power curve, you can increase the average horsepower that accelerates the vehicle.

TOP SPEED
This feature lets you electronically raise your vehicle's top speed limiter to match the speed rating of factory-approved high-performance tires, or lower the top-speed limiter from 25 to 75 MPH.

The maximum speed of many modern vehicles is governed by the onboard computer. The stock computer is programmed to shut down the engine when the vehicle exceeds the speed rating of the original equipment tires. But if you have installed tires with a higher speed rating for off-highway competition in sanctioned events, your vehicle may be able to achieve a higher top-speed. A tire's maximum safe speed under perfect conditions is marked on its sidewall. Codes for popular high-performance tires are: T=118 mph, U=124 mph, H=130 mph, V=149 mph, Z=149+ mph. This feature may only be used with Factory approved speed rated tires.

The option to lower the top speed limiter is available to restrict the driver to a maximum speed limit. Some examples of the use of this feature are to limit the speed of inexperienced drivers, valet parking, or fleet vehicle management. The top speed can be limited from 25 MPH to 75 in 5 MPH increments.

NOTE: Always obey Federal Traffic Laws. Do not raise the vehicle top speed limiter above the speed rating of the tires installed on the vehicle. Raising the vehicle top speed limiter above the speed rating of the tires installed on the vehicle may lead to a serious or fatal accident.

TIRE SIZE
This feature recalibrates the speedometer and odometer, and the part throttle shifting for auto transmissions (some vehicles), if non-stock tires have been installed on the vehicle. This option is adjustable in ¼ inch increments. It is critical to measure the actual tire height. This is the total diameter of the wheel and tire together, as measured distance from the ground to the top of the tire, at the centerline of the wheel. Make sure the tires have proper air pressure. Compare your settings to a GPS, and adjust the height up or down as needed to dial in the exact calibration.

Another method of measuring the tire diameter:
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.

GEAR RATIO
This feature will recalibrate the speedometer and odometer readings, and part-throttle shifting for automatic transmissions (some vehicles), if an aftermarket gear is installed.

SHIFT POINTS (Auto Transmission Only)
This feature allows adjustment of the wide open throttle shift RPM for each gear. This adjustment is typically in 100 RPM increments. This setting does not affect part throttle shifting. To determine the factory shift point in each gear, accelerate the throttle wide open while in Drive, and hold it until the transmission shifts. Note the RPM when the gear change occurs.

These settings are totally subjective, and based on user feel, or by the time slip at the track.

For shift point optimizing, test only one (1) shift point at a time until the best RPM shift point is found for each. The shift point adjustment range is +/-500 RPM in approximately 100 RPM increments for each of the shift points for the vehicle. If changes are made to the shift points, the rev limiter must also be adjusted accordingly (See chart below). Not doing so may result in damage to the engine or powertrain.

Rev Limit	Shift Points	Rev Limit	Shift Points
-500	-500	+100	+100 or lower
-400	-400 or lower	+200	+200 or lower
-300	-300 or lower	+300	+300 or lower
-200	-200 or lower	+400	+400 or lower
-100	-100 or lower	+500	+500 or lower
Stock	Stock or lower		

SHIFT FIRMNESS (Automatic Transmission Only)
This feature electronically increases the automatic transmission line pressure for firmer shifts, reducing clutch slippage and transmission oil temperatures, and prolonging transmission life. These settings are totally subjective, and based on user feel.

FAN TEMP
This feature allows adjustment of the temperatures of the vehicle's electric cooling fans to match a lower temperature thermostat. The fan will turn on when the engine reaches the programmed temperature. Note this feature will not control the actual engine temperature. It only controls when the fan turns on and off.

V4 MODE
This feature allows adjustment or removal of the V4/V8 mode in certain GM and Chrysler/Dodge vehicles.

The Active Fuel Management (AFM) is GM's system for disabling multiple cylinders while driving at light loads. The Multi-Displacement System (MDS) is the Chrysler/Dodge version. Although this system is very advanced, there is some minor sacrifice in the drivability when the AFM/MDS is active, or during the transition to 4-cylinder and 8-cylinder modes. Because of this, some customers may desire the ability to disable the AFM/MDS system altogether. Hypertech has included the ability to disable this system as an option in the Max Energy 2.0. Rather than simply disabling the AFM/MDS system though, Hypertech did spend the time to fully develop improved engine tuning in V4 and V8 modes to improve the drivability of the vehicle.

0-60 RESTRICTION
Even though you "floor" the vehicle's accelerator pedal, the factory programming contains a wide open throttle (W.O.T.) restriction which slowly opens the throttle to W.O.T. for smooth, no wheel-spin acceleration. With the Hypertech Max Energy 2.0, this feature allows you to remove the W.O.T. restriction for immediate, maximum throttle response and power, with quicker acceleration. You may have to practice your "starts" to control wheel-spin with stock tires, but with wider rear tires, or at a "sticky" race track, you will definitely get quicker acceleration and elapsed times.

We tune the throttle response on all vehicles with the Hypertech Engine Tuning, but this feature is available for select vehicles, as a separate option, that have severe restrictions in throttle control that can affect the day to day drivability characteristics of the vehicle.

SECTION 4: UPDATING YOUR PROGRAMMER
The Max Energy 2.0 may need to be updated if support for the vehicle was added after the manufacture date of the programmer, or if the vehicle has a calibration that is not supported by the programmer. Follow the steps below to update your programmer.

1. **Install the Tuner Update Software.**
   The Tuner Update Software can be installed on any Windows based PC from the same CD that these instructions are located, or it can be downloaded from the Hypertech website at the link below. Note: The Tuner Update Software is not compatible on Apple/MAC operating systems.

2. **Connect the programmer to the PC with the supplied USB cable.**

3. **Open the Tuner Update Application software from the PC.**
   Once the update software is installed, there will be a shortcut installed on your desktop. Double click the shortcut to start the program.

   Tuner Update
   Application ...

4. **Click the 'Update Tuner' button, and follow the instructions on the screen.**

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