# OGO-HC12 Performance Chip Installation Manual

- O HHO Enhancer
- ◎ MAP Inspirer
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Ocean-Go Tech. Co., Ltd.

**Disclaimer**: When purchasing this device, you are held responsible for any damage that may accure during installation or operation of this device. Ocean-Go Tech. Co., Ltd. is not held liable and holds no responsibility for any personal harm or property damage.

Thank you for purchasing OGO-HC12 Performance Chip. Please read contents as below carefully to understand the installing and operation procedures before getting started.

## **XIntroduction**

The OGO-HC12 Chip works by dynamically changing the values in the ECU. Each OGO-HC12 comes pre-programmed with a set of EPROM addresses that directly affect efficiency and performance. When the ECU attempts to read the specific EPROM address, the OGO-HC12 Chip patches the factory value with one from its on-board performance tune map, allowing you to unleash your engine's full potential.

# **XInstallation**

Start by locating your OBD2 Port. If you don't know where it is, go to:

<u>http://www.obdclearinghouse.com/index.php?body=oemdb</u> and enter your vehicle year, make and model.



(OBD2 Port)

Use the adhesive to fasten the OGO-HC12 near the OBD2 port. Make sure you can see the LEDs if necessary. The OGO-HC12 Chip will connect to the wires on the back of the port. It is designed not to interfere with OBD scanners, gauges, etc.

Make sure you can get to the wires on the back of the port. Most are held in by catches on both sides of the port. On some vehicles, you may need to remove a couple screws or wire wrap to gain access.

The OBD Port has 16 pins arranged in numerical order when viewed from the front, reverse order from the back. Note that every pin does not have a wire attached. The WHITE and GREEN wire connections vary by protocol.



# **※Determine Protocol:**

Look at the front of the port. Write down which of the following pins are populated (have a metal contact or wire present): 2,6,7,10,14,15

OBD2 Pin	Description
2	SAE J1850 Bus +
4	Chassis
5	Signal Ground
6	CAN High
7	ISO9141 K Line
10	SAE J1850 Bus -
14	CAN Low
15	ISO9141 L-Line
16	Vehicle Battery Positive

#### **OBD-II connector pinout**



•**PWM**-If pins 2 & 10 are populated, then connect WHITE to pin 2, and GREEN to pin 10. •**VPW**-If pin 2, but not pin 10 is populated, then connect WHITE to pin 2, and GREEN to pin 5. •**ISO**-If pin 7 is populated, then connect WHITE to pin 7. Connect GREEN to pin 15 if populated, pin 5 if not.

•CAN-If pin 6 & 14 are populated, then connect WHITE to pin 6, and GREEN to pin 14.

Connect the RED 12V+ wire to pin 16. Finally, connect the BLACK GND wire to pin 4. Connector Installation Instruction

The OGO-HC12 Chip should now be on. You Must Reset the OGO-HC12 chip now. After Connecting all four wires, tuck them away and secure them with zip-ties. Replace any screws, panels, or wire wrap you removed to access the port.

## **%Initial Calibration**

After installing for the first time, start the car's engine. The OGO-HC12 Chip will determine which protocol you have and calibrate its on-board map and communication baud rates. This calibration should take 1-3 minutes, depending on the vehicle. During calibration, the LED will flash Red and Green very rapidly.

DO NOT DRIVE OR REV ENGINE DURING CALIBRATION. ALLOW ENGINE TO IDLE UNTIL COMPLETE.

# **%**Recalibrating

In the event you make any changes to your vehicle, you must reset the OGO-HC12 chip for optimum gains. If you feEl the OGO-HC12 chip is no longer functioning properly, a reset will return it to normal.

Changes include anything that affects engine performance or efficiency, such as new engine components, or replacing defective parts.

### **\***To Reset:

Turn the vehicle off. Press the Reset button in the middle of the chip. Both LEDs will come on, then the Red LED may flash up to 20 times, then the OGO-HC12 Chip will enter Standby Mode. The OGO-HC12 Chip will now recalibrate the next time the vehicle is started.

## **\*LED** States



**Standby**-(All LEDs off, DATA flashes every 5-10 seconds.) The OGO-HC12 Chip is connected properly and waiting for a signal from the ECU. Some newer vehicles with keyless entry or factory alarm may not enter standby.



**Calibrating**-(PWR LED on, DATA flashing rapidly for 1-3 minutes.) The OGO-HC12 Chip is self calibrating, adjusting its map for your specific engine and modifications. Vehicle must be running during calibration. If not, then apply reset. After calibration, the OGO-HC12 Chip will enter Power On mode.



**Power On**-(PWR LED on, DATA flashes occasionally.) The ECU is active and communicating with the OGO-HC12 Chip.



**Link LED**-(Both LEDs flashing rapidly for 1-5 seconds.) The LINK LED indicates handshake with the ECU and used for diagnostic purposes.