Volo PERFORMANCE

OBD Dynamic Soft-Flash Chip

MODELS : FS2, FS3, Rev. 7.6+

Volo FS2

w/OBD II

Connector

Installation

& Operation

Introduction

Thank you for purchasing the Volo DSF Chip. Please take the time to read through this manual to understand the installation and operation procedures before getting started.

The Dynamic Soft-Flash Performance/Fuel Chip is a new concept developed by Volo Performance Inc., and is not offered anywhere else. It works by dynamically changing the values in the ECU. Each Volo Chip 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 Volo Chip patches the factory value with one from its on-board performance tuned map, allowing you to unleash your engine's full potential.

Actual product may vary from photos.

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Except as expressly provided herein, no part of this manual or proprietary code contained in the product itself may be reproduced, copied, transmitted, disseminated, downloaded or stored in any storage medium, for any purpose without the express prior written consent of Volo Performance Inc.

This product is legal for road use in the USA.

Volo Performance Inc., the manufacturer, and distributers of this product are in no way responsible for any property damage, personal injury or death resulting from the installation and/or use of this product. Improper installation or installing on a vehicle other than that which the chip was programmed for could lead to serious damage to the engine, ECU, electrical system, ABS, or other crucial system that in extremely rare circumstances could cause a loss of control of the vehicle. By installing and/or using the product, you agree to the following :

"I have read the previous paragraph and I know, understand, and appreciate these and other risks that are inherent in vehicle modification. I hereby assert that my participation is voluntary and I knowingly assume all such risks. I also agree to INDEMNIFY AND HOLD Volo Performance, the manufacturer, and distributers of this product HARMLESS from any and all claims, actions, suits, procedures, costs, expenses, damages and liabilities brought as a result of proper or improper installation and/or use of this product."

Installation

WARNING!! DO NOT JUST PLUG IN THE OBD II PORT PLUG & DRIVE

You just got the the latest from Volo Performance. The Volo FS2-HHO • FS3 -Fuel Saver • VP15 all in one. We include a OBDII port connector. You can use this plug, or go the old style of soldering in 4 wires behind your port, freeing the port to plug in other OBD II ECM readers. You need to solder in 2 wires to the correct 2 pins for the green and white wire. We pre solder in the red + wire to pin #16 and the black (-)grd wire to pin #4

First locate your OBD II port under the dash, usually. You need to find the populated pins in the OBDII port plug with 1 - 16 pin #'s.

95% of all cars and trucks 1996 and newer use PIN #4 as ground (-) and ***PIN #16 is power 12v DC+***
Now you must find where your ***green*** *and white wire go.*

Red wire to #16
Black wire to #4

- *PWM Protocol - If pins 2 and 10 are populated, then connect WHITE wire to PIN #2 and* ***GREEN wire*** *to PIN #10. (Fords)*
- *VPW Protocol - If pin #2 is populated, but not pin #10, then connect WHITE wire to PIN #2 and* ***GREEN*** *to PIN #5*
- *CAN Protocol - If PIN #6 and #14 are populated, then connect WHITE wire to PIN #6 and* ***GREEN wire*** *to PIN #14.*
- *ISO Protocol - If PIN #7 is populated, then connect WHITE wire to PIN #7. Connect* ***GREEN wire*** *to PIN #15 if populated. If not solder to PIN #5. If both ISO and CAN is present, then CAN is preferred.*

Installation

This page is for all those who do not want to use the OBD II port for you have another device to use the port. They do sell a" OBD II Y Adapter Connector " OR solder in the 4 wires as below.

Connect the red **12V+** wire to pin 16.

CAUTION : Accidentally touching your pliers to metal dash structure while connecting the red wire will cause a blown fuse!

Finally, connect the black **GND** wire to pin 4.

The Chip should now power up.

After connecting all four wires, tuck them away and secure them with zip-ties. Attach the Volo Chip to the lower part of your dash using the included adhesive.

Replace any screws, panels, or wire wrap you removed to access the port.

Proceed to CALIBRATION...

Calibration

Volo can not throw a check engine light

The Volo Chip MUST be calibrated before use.

To Calibrate :

1. Start the vehicle and wait for it to reach normal operating temperature. Leave the engine running for the calibration process.
2. If you have an aftermarket HHO generator equipped, ensure it is connected properly with no vacuum leaks and that it is producing the maximum output you intend to use.
3. Use a paper clip to press the RESET button located inside the Volo Chip's case.
4. Wait 1-3 minutes for calibration to complete. The LINK LED will flash during calibration. Once the LINK LED becomes solid green, calibration is complete.

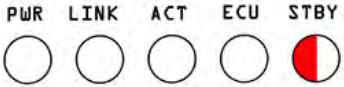
   In addition to calibration, most vehicles will require an additional ~120 miles adjustment period for maximum gains.

Recalibrating

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

If you change amp draw with your HHO cell, push the reset button, while hot and idling and NOT moving. Any changes, HHO off, push reset button. Once you see gains, leave reset alone.

LED States



STANDBY MODE

STBY LED blinks every 5-10 seconds
There is no signal from the vehicle's computer.
The device may not enter stand-by on some vehicles in which the ECU remains active after engine shut-off.
This is normal and will not adversely effect operation.

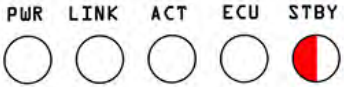
POWER ON MODE

PWR and LINK LEDs are solid green
ACT and ECU LEDs are solid or flashing
This indicates the device is connected and functioning properly.

CALIBRATING

PWR LED is solid green
LINK LED is flashing
ACT and ECU LEDs are solid or flashing
The device is in Auto-Calibration mode. During this time, your particular engine characteristics are being evaluated to generate an offset map. This allows the device to fine tune itself for optimum performance.

LED States



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Visit
www.VoloPerformance.com
for
troubleshooting and support.

Link Pages : https://hydrogengarage.com/volo.html

https://hydrogengarage.com/volo.html#troubleshooting

https://hydrogengarage.com/assembly.html

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