

Operating Voltage: 8-18 V DC

<http://prd.com.gr>

Operating Temperature: -10 to +60 C

Dimensions: w 100mm, h 50mm, d 25mm

Weight: 83 gr

display oled 16x2

map sensor 4 bar

solenoid valve

## **IMPORTANT INFORMATION**

Please read this manual carefully. Proceed with the installation process ONLY IF you have completely understood whatever is mentioned with the markings “Important”, “Warning”, “Attention”, which are found throughout the manual.

### **IMPORTANT**

- The product must be installed ONLY when you have removed the key from the ignition.
- The product is only for vehicles equipped with 12V electrical systems.

### **WARNING**

- The installation and setup of the product must be performed by a professional, aware of the mechanical, electrical and fuel management systems of the car. If it is installed by someone who hasn't trained properly, damage may be caused to the unit as well as to the vehicle itself.
- During the installation of the product to the vehicle, make sure that the unit doesn't interfere with the driver's range of vision or the regular function of the vehicle.
- Before the use of the soldering iron and other tools for the installation, make sure that you have read and understood the manual. Damage may be caused by

improper use of the tools.

- During working on the electric wires, make sure that you have disconnected the negative terminal of the battery.
- Pay attention during the increase of the boost, as too much boost will cause damage to the engine.
- Before the installation of the product to the vehicle, make sure that you are aware of the safe limit of boost for the current vehicle.
- The manufacturer and the vendor have no responsibility for any damage caused by exceeding the safe limit of boost.
- Never setup PRD while vehicle is moving.
- Never setup PRD in public roads, as you expose yourself and the people around you in danger.
- During the setup and operation of the vehicle in a garage, make sure that the garage has an appropriate ventilation system.
- After the installation and the setup make sure that you have remove everything that the driver is exposed to. Tools and/or wires may cause accidents if the driver is exposed to them.

### **ATTENTION!**

- Inappropriate setup of the PRD may cause engine damage.
- The manufacturer and the vendor have no responsibility for any damage that may be caused by wrong installation and setup.
- Setup must be performed ONLY by a professional, who understands completely the turbo s system of the vehicle and the requirement of the fuel setup of the engine.
- Always use the proper proportion of the air/fuel counter during the setup of the PRD to secure a safe limit boosting. Installation of the product requires the modification of the vehicle's electric system.

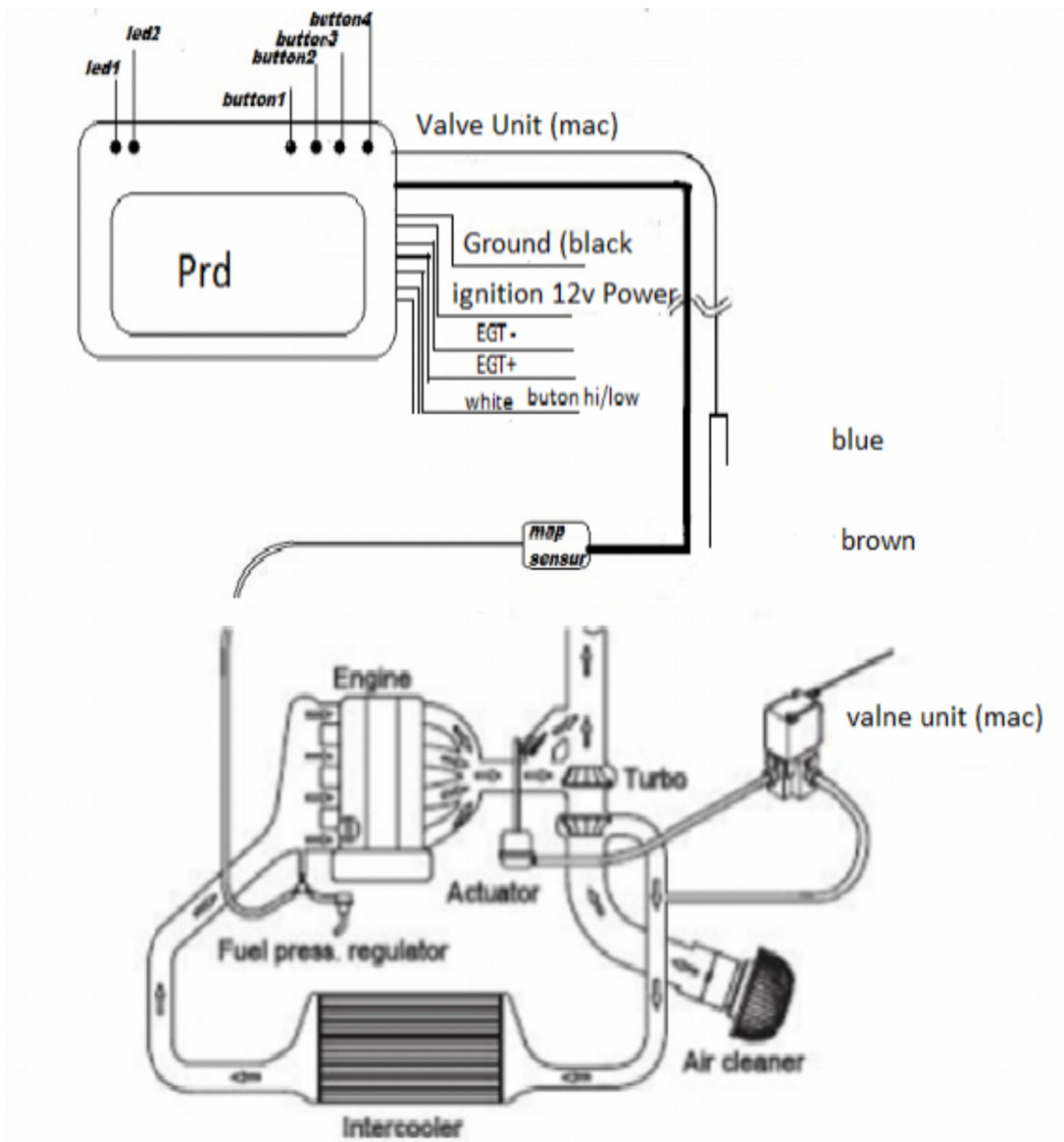
- During the connection of the wires, make sure that you have removed the key from the ignition switch and you have disconnected the negative terminal of the battery.
- Never cause short circuit to the system. It could cause damage to the unit and the electric system of the vehicle.
- Read and comprehend completely the wiring diagram before making any wiring connection.
- During the connection of the connectors, push them until you hear the click sound.

### **BEFORE INSTALLATION**

- Make sure that the engine is cold before starting working under the hood.
- Remove the key from the ignition switch and disconnect the negative terminal of the battery.
- Before the installation of the unit's valve, make sure that the supplied pressure pipe is long enough to reach.

### **ADRESSED TO INSTALLER**

After the installation is complete, make sure you hand this manual to the owner of the vehicle.



To add additional button hi / low, connect the white wire to the (-) black in any case no (+) 12v

## **IMPORTANT**

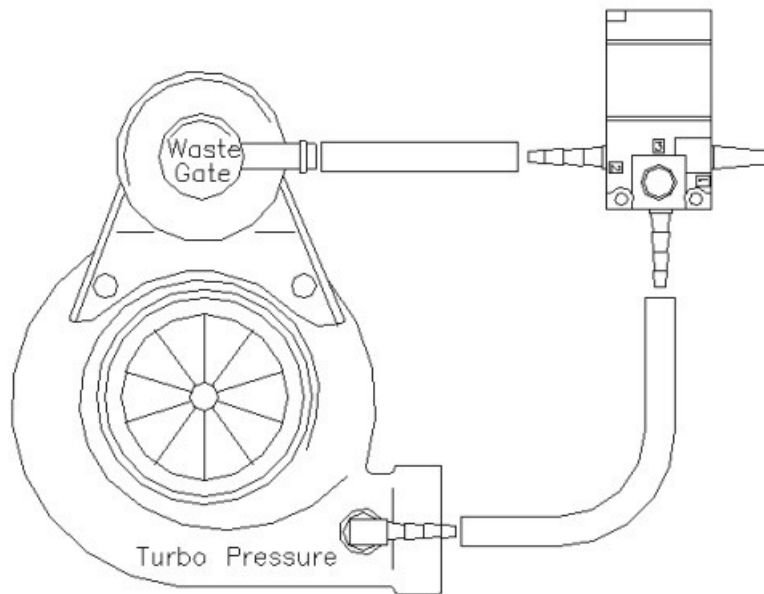
- Please make sure that the 4mm supplied rubber hoses are secured with a zip tie after the installation in order to prevent them from disconnecting.
- Toyota JZ and Mitsubishi 4G63 engines contain electromagnetic valve fuel pressure control. For these vehicles, make sure to get pressure from the line between intake manifold and the electromagnetic valve (solenoid).
- During the routing of the 4mm rubber hose through the firewall make sure not to crimp it. In case the rubber hose has crimped, problems may be caused to the normal function of the unit

## INSTALLATION DIAGRAMM

### DIAGRAM 1:

### DUAL PORT ACTUATOR

Disconnect the link and the gap lines from the electromagnetic valves and plug all the gap ports.



#### **Hookup for Internal Wastegates:**

**Port 1:** Sintered Muffler

**Port 2:** Wastegate

**Port 3:** Turbo Pressure

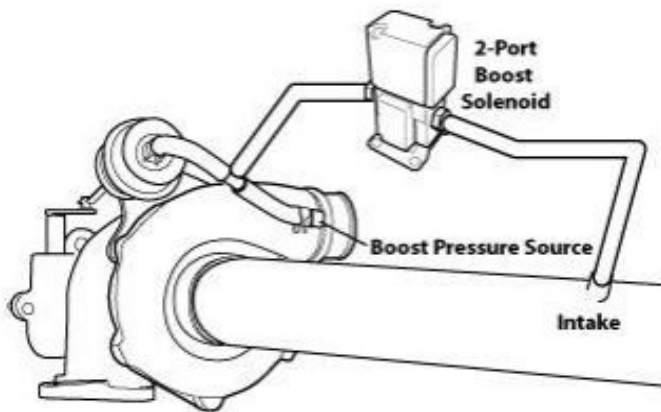
This hookup, with no additional hoses required, will give you the highest boost when the solenoid is fully energized (90%) and allows the minimum boost to be determined by the mechanical spring in the wastegate when the solenoid is not powered (0-10% duty).

Figure 8. Internal Wastegate Connection

## **DIAGRAM 2:**

### **SINGLE PORT ACTUATOR**

Disconnect the link and the gap lines from the electromagnetic valves and plug all the gap ports.

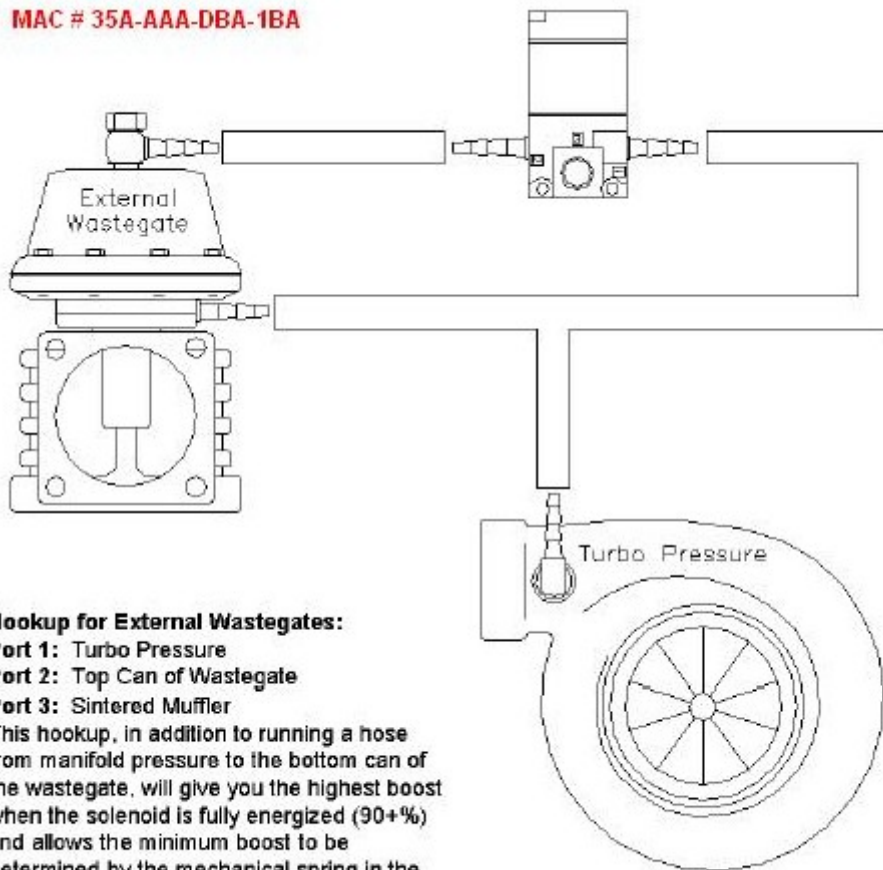


### **IMPORTANT**

- Put the valve's unit in a cool place, where the unit can't heat up or get wet.
- Secure all the vacuum-pressure links with clamps.
- During vacuum hoses' routing, make sure you won't crimp or twist them.
- Make the hoses as short as they can get.
- It's normal for the valve to make sounds when it's working.

### **EXTERNAL WASTEGATE**

MAC # 35A-AAA-DBA-1BA



**Hookup for External Wastegates:**

**Port 1:** Turbo Pressure

**Port 2:** Top Can of Wastegate

**Port 3:** Sintered Muffler

This hookup, in addition to running a hose from manifold pressure to the bottom can of the wastegate, will give you the highest boost when the solenoid is fully energized (90+%) and allows the minimum boost to be determined by the mechanical spring in the wastegate when the solenoid is not powered (0-10% duty) .

## WIRING PROCEDURES

In order to make an extra button for the HIGH/LOW connect the red and the white one.

1)



## **BOOST CONTROLLER SETUP**

- Pressing button2 once: High/Low setting changes.  
Pressing button2 for 2 seconds: Gets in off mode.  
Boost percentage 0 – 100
- In order to adjust boost in PRD you need to press button4 and boost percentage will increase. If you press button3 boost percentage will decrease
- When you get to desired percentage don't press any other button. After 3 seconds and when the digits will flicker, it will have automatically been saved.



### 1. EGT warn 800 - 1250

By pressing button4 you increase EGT warn.

By pressing button3 you decrease EGT warn.

By pressing button1 for 2 seconds setup is saved.

Whatever number you adjust on EGT warn, if it's exceeded Led 2 will activate and then it will drop to mechanical boost.



- If you press again button1 then you enter



Boost Warn 0.7 - 3 bar

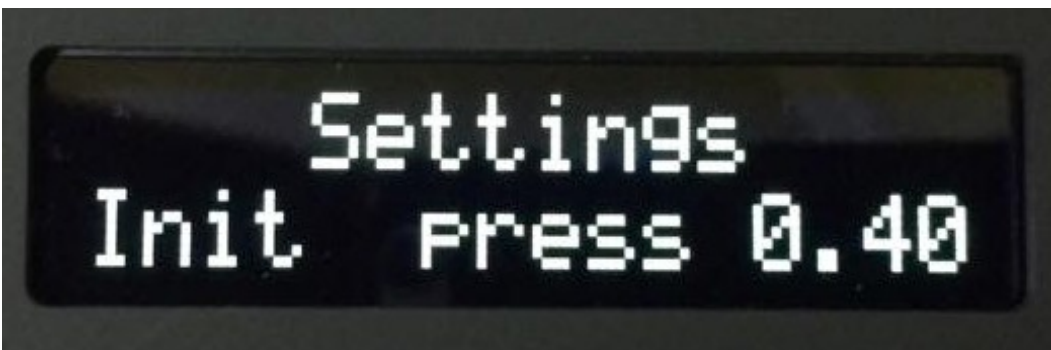
By pressing button4 you increase boost warn.

By pressing button3 you decrease boost warn.

By pressing button1 for 2 seconds setup is saved.

Whatever number you adjust on boost warn, if it's exceeded Led 2 will activate and then it will drop to mechanical boost.

- If you press again button1 then you enter



Init press off - 3

By pressing button4 you increase Init press.

By pressing button3 you decrease Init press.

By pressing button1 for 2 seconds setup is saved.

- If you press again button1 you enter



Pulse Gain 0 - 20

By pressing button4 you increase Pulse Gain

By pressing button3 you decrease Pulse Gain.

By pressing button1 for 2 seconds setup is saved.

- To exit settings press button2.
- If you press again button1 then you enter



D.Boost.w 0 - 100

By pressing button4 you increase D.Boost.W

By pressing button3 you decrease D.Boost.W

By pressing button1 for 2 seconds setup is saved.

- To exit setting press button2

D.Boost. W: Percentage of pressure decrease.