

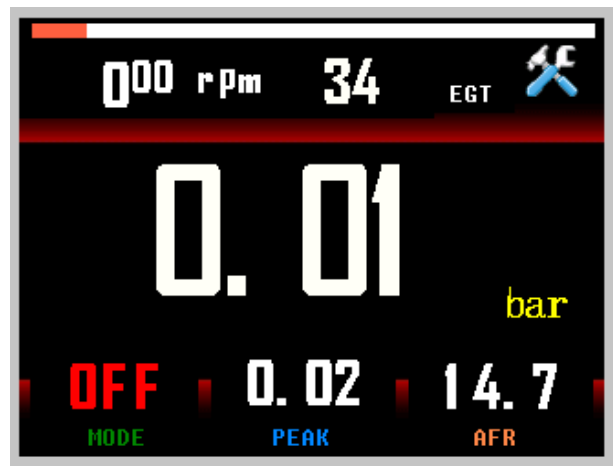
PRD 600 Boost controller w/ Can Bus interface

Technical Details

- Voltage: 8-18 V DC
- Operating Temperature: -10 to +60 C
- Dimensions: w 81mm, h 49mm, d 12mm
- Aluminum construction
- Display.2.4" TFT Intelligent LCD Touch Display in aluminum framing
- 4Bar MAP sensor
- Solenoid valve
- Weight: 62 g

Features

- 7 control modes (Off-Low-High-RPM1-RPM2-VSS-GEAR)
- Boost by RPM (configurable 2D Map)
- Boost by VSS (configurable 2D Map)
- Boost per GEAR
- Can-Bus integration (Timing Advance, TPS, CWT, IAT etc)
- Configurable shift light
- Exhaust Gas Temperature (K-Type)
- Failsafe settings (boost cut & warning for AFR , Boost or EGT limits)
- DTC Fault clearing
- (Under Dev.) Programmable Aux failsafe input to limit boost under conditions (for example when nitrous switch is activated or when there is no voltage from methanol controller etc.)
- (Under Dev.) Logging using our purpose-built Windows application to monitor & plot real time values like Actual duty cycle, spark advance, boost pressure etc
- (Under Dev.) VAG Group can bus mode (i.e. Timing retardation per cylinder etc)



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Important Information

Please read the following manual carefully. Proceed to the installation process only when you completely understand notifications titled as “Important”, “Warning”, “Attention”.

Important

- This product must be installed only with engine off.
- This product is ONLY for vehicles with 12V battery systems.
- Prior to installation , all necessary safety measures such as removal of the negative terminal should be taken

Warning

1. Installation and regulation of this product must be done only by a trained expert, if not it may damage the unit and the vehicle.
2. While installing the product to the vehicle, make sure that the unit does not interfere with the driver’s view and the smooth operation of the vehicle.
3. Before soldering and using other tools of installation, make sure that you have read and understood their manuals. Wrong use may cause injuries.
4. When working on electrical wires, make sure you have disconnected the negative terminal side of the battery.
5. Pay attention while the boost increases, because high boost could damage the engine.
6. Before the installation, make sure you know the safe boost pressure limit of the vehicle each time.
7. The manufacturer and the seller are not responsible for any damage caused by exceeding the safe boost pressure limit.
8. Never setup prd 600 while the vehicle is on the move.
9. Never regulate prd 600 on a public road, because you put in danger yourself and the surroundings.

10. While regulating and working on a vehicle inside a garage, make sure garage is equipped with the appropriate ventilation system.

11. After installation and regulation, make sure you have collected everything around the driver. Tools and/or wires that are close to the driver may cause accidents.

Warning!

- 1.** Inappropriate Prd setup may cause engine damage.
- 2.** The regulation must be done only by an expert, who completely understands turbo s system and the fuel management engine requires.
- 3.** Always ensure that your engine/vehicle has the ability to work with increased boost.
- 4.** Installation of the product requires modification of the vehicle's electrical system.
- 5.** While connecting wires, make sure you have removed the key from ignition and you have disconnected the negative terminal side of the battery
- 6.** Never short-circuit the system. It could damage the unit as well as the vehicle's electrical system.
- 7.** Read and understand the wiring diagram before any wire connection
- 8.** While connecting, push until you hear the click.

Before Installation

- 1.** Make sure the engine has cooled before working under the hood.
- 2.** Remove the key and disconnect the negative terminal side of the battery.
- 3.** Before installing the unit valve, make sure that the provided pressure tube is long enough to reach it.

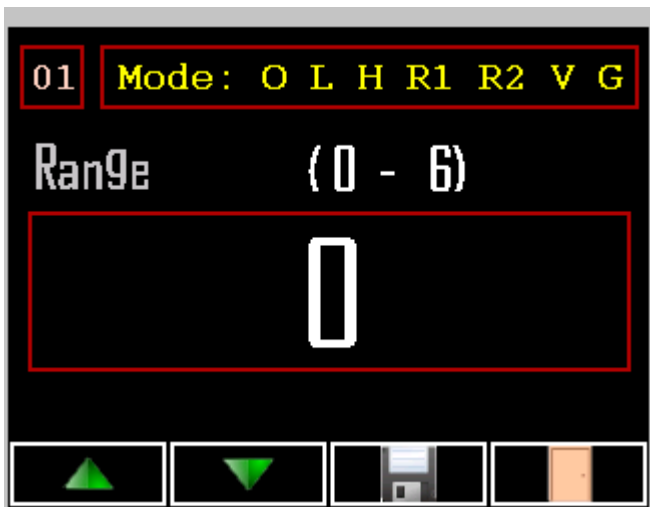
For the installer

After installation, please make sure you give this manual to the vehicle owner.

WARNING: Read the regulation and functions manual before use.

Settings

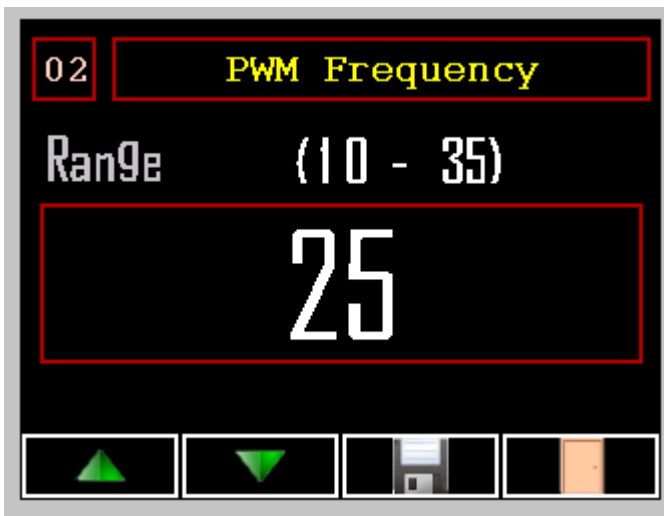
1. **Mode** 0:OFF 1:LO 2:HI 3:RPM1 4:RPM2 5:VSS 6: GEAR



1. Press the setting key, up and right on the screen (tool icon).
 2. Choose option **01**.
 3. Press the box with the listed number and the number keypad will pop up.
 - 3.1. If you prefer your boost controller to work based on pre-regulated **LOW** set duty cycle, press **1**.
 - 3.2. If you prefer your boost controller to work based on pre-regulated **HIGH** set duty cycle, press **2**.
 - 3.3. If you prefer your boost controller to work based on pre-regulated **RPM1** duty cycle table, press **3**.
 - 3.4. If you prefer your boost controller to work based on pre-regulated **RPM2** duty cycle table, press **4**.
 - 3.5. If you prefer your boost controller to work based on pre-regulated **VSS** duty cycle table, press **5**.
 - 3.6. If you prefer your boost controller to work based on pre-regulated **GEAR** duty cycle table, press **5**.
- The mode you choose will be seen on MODE box, back to home screen.
 - If you have chosen your boost controller to work based on LOW set mode, at home screen MODE box will be written “LOW”.
 - Pressing that “LOW” you switch it to “HIGH” mode and opposite.
 - If you have chosen your boost controller to work based on RPM1 mode, at home screen MODE box will be written “RPM1”.
 - Pressing that “RPM1” you switch it to “RPM2” mode and opposite.
 - If you have chosen your boost controller to work based on VSS mode, at home screen MODE box will be written “VSS”.

- If you have chosen your boost controller to work based on GEAR, at home screen MODE box will be written “GEAR”.
4. Confirm your choice, press **OK**.
 5. Save your choice, press “hard drive” icon.
- Go to the next/previous setting, use arrow buttons.
 - Return to home screen, use “exit door” icon.

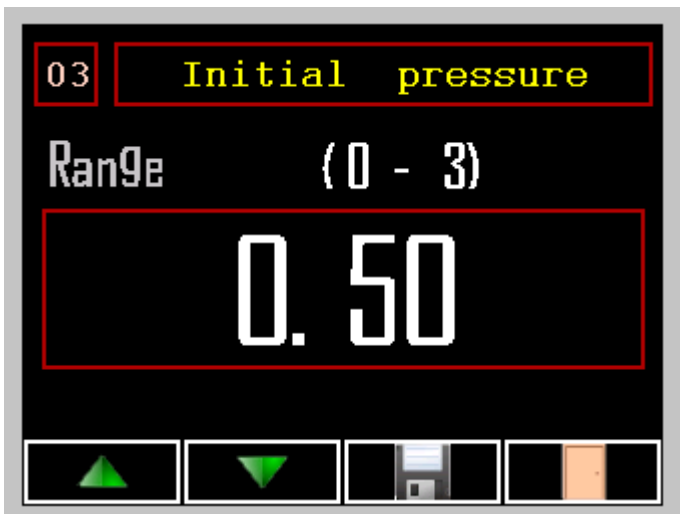
2. PWM Frequency



Regulate frequency PWM. **Recommended frequency 25 Hz**

1. Press the setting key, up and right on the screen (tool icon).
 2. Go to option **02**.
 3. Press the box with the listed number and the number keypad will pop up.
 4. Dial the frequency you prefer, with restriction **16 to 35 Hz**.
 5. Confirm your choice, press **OK**.
 6. Save your choice, press “hard drive” icon.
- Go to the next/previous setting, use arrow buttons.
 - Return to home screen, use “exit door” icon.

3. Initial pressure



Regulate Initial Pressure.

Steps

1. Press the settings key, up and right on the screen (tool icon).
 2. Go to option 03.
 3. Press the box with the listed number and the number keypad will pop up.
 4. Dial the pressure you prefer, with restriction 0 to 3 bar.
 5. Confirm your choice, press **OK**.
 6. Save your choice, press “hard drive” icon.
- Go to the next/previous setting, use arrow buttons.
 - Return to home screen, use “exit door” icon.

4. Boost warning

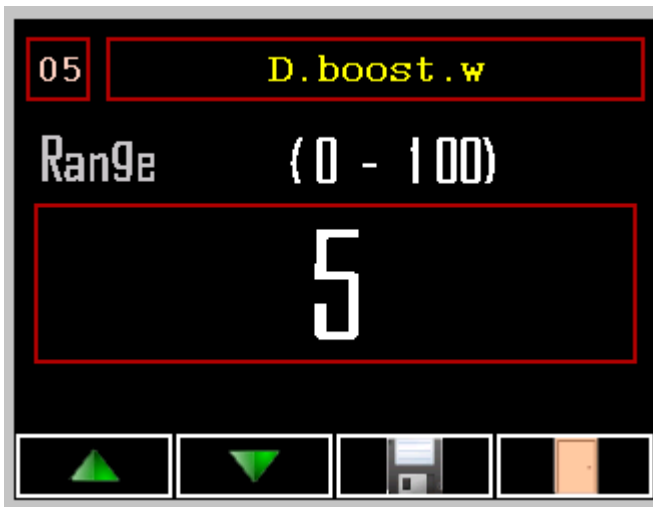


Regulate Boost Warning.

Steps:

1. Press the setting key, up and right on the screen (tool icon).
 2. Go to option 04.
 3. Press the box with the listed number and the number keypad will pop up.
 4. Dial the boost you prefer, with restriction 0 to 3
 5. Confirm your choice, press **OK**.
 6. Save your choice, press “hard drive” icon.
- Go to the next/previous setting, use arrow buttons.
 - Return to home screen, use “exit door” icon.

5. D.boost.w

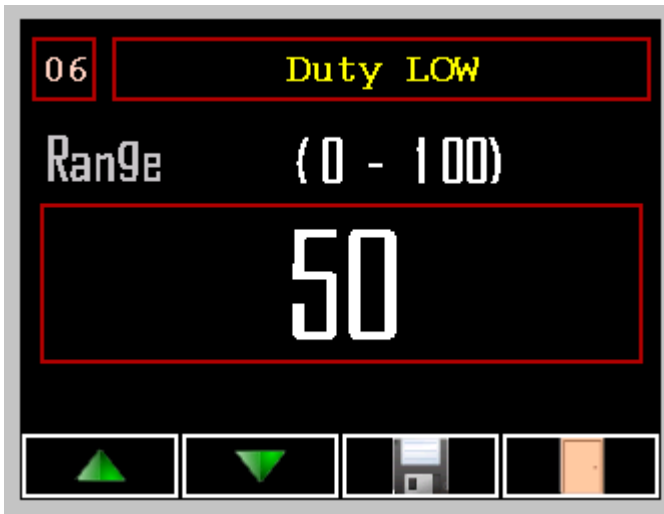


Regulate boost reduction rate after warning.

Steps:

1. Press the setting key, up and right on the screen (tool icon).
 2. Go to option 05.
 3. Press the box with the listed number and the number keypad will pop up.
 4. Dial the boost you prefer, with restriction 0 to 100.
 5. Confirm your choice, press **OK**
 6. Save your choice, press “hard drive” icon.
- Go to the next/previous setting, use arrow buttons.
 - Return to home screen, use “exit door” icon.

6. LOW set

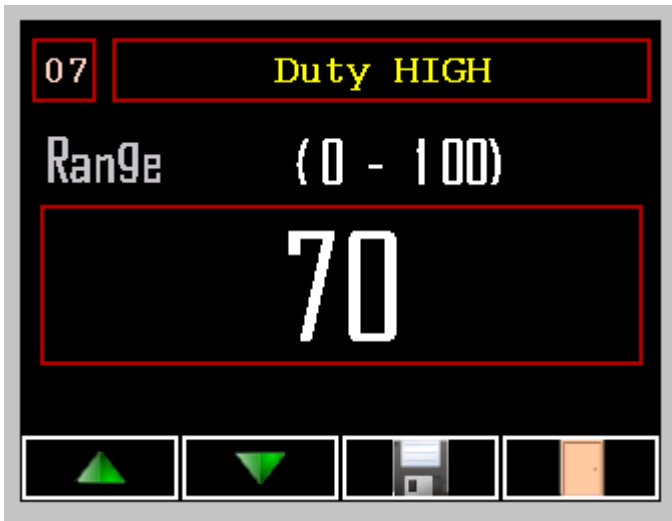


Regulate Low set.

Steps:

1. Press the setting key, up and right on the screen (tool icon).
 2. Go to option 06.
 3. Press the box with the listed number and the number keypad will pop up.
 4. Dial the boost you prefer, with restriction 0 to 3 bar.
 5. Confirm your choice, press **OK**.
 6. Save your choice, press “hard drive” icon.
- Go to the next/previous setting, use arrow buttons.
 - Return to home screen, use “exit door” icon.

7. HIGH set

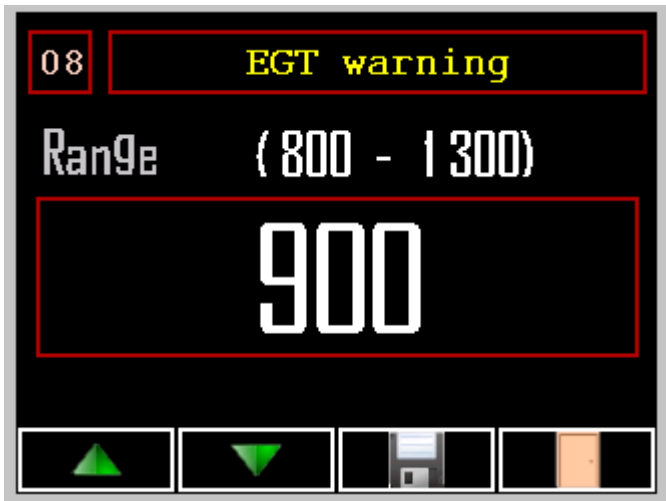


Regulate High set.

Steps:

1. Press the setting key, up and right on the screen (tool icon).
 2. Go to option 07.
 3. Press the box with the listed number and the number keypad will pop up.
 4. Dial the boost you prefer, with restriction 0 to 3 bar.
 5. Confirm your choice, press **OK**
 6. Save your choice, press “hard drive” icon.
- Go to the next/previous setting, use arrow buttons.
 - Return to home screen, use “exit door” icon.

8. EGT WARNING

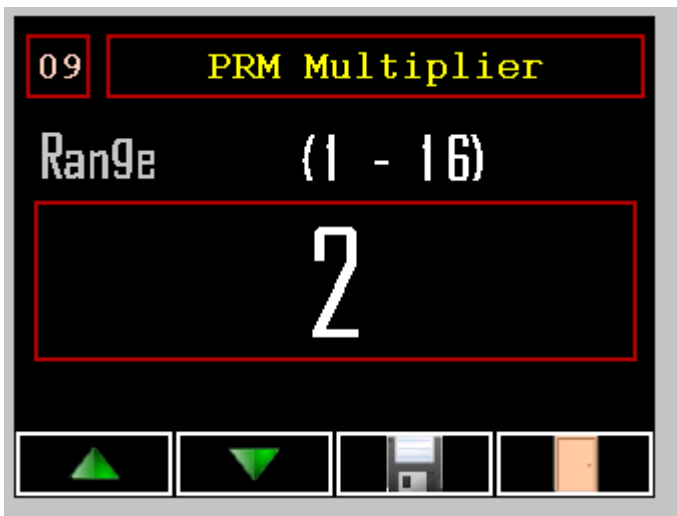


Regulate exhaust gas temperature.

Steps:

1. Press the setting key, up and right on the screen (tool icon).
 2. Go to option 08.
 3. Press the box with the listed number and the number keypad will pop up.
 4. Dial the temperature you prefer, with restriction 800 to 1200 degrees.
 5. Confirm your choice, press **OK**.
 6. Save your choice, press “hard drive” icon.
- Go to the next/previous setting, use arrow buttons.
 - Return to home screen, use “exit door” icon.

9. RPM Multiplier

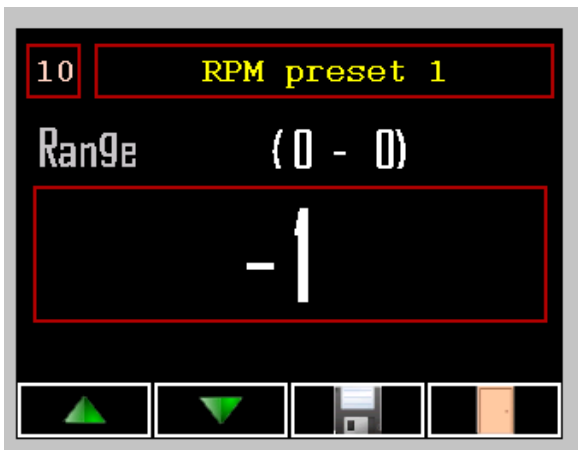


Regulate RPM Multiplier.

Steps:

1. Press the settings key, up and right on the screen (tool icon).
 2. Go to option 09.
 3. Press the box with the listed number and the number keypad will pop up.
 4. Dial the boost you prefer, with restriction 1 to 16.
 5. Confirm your choice, press **OK**.
 6. Save your choice, press “hard drive” icon.
- Go to the next/previous setting, use arrow buttons.
 - Return to home screen, use “exit door” icon.

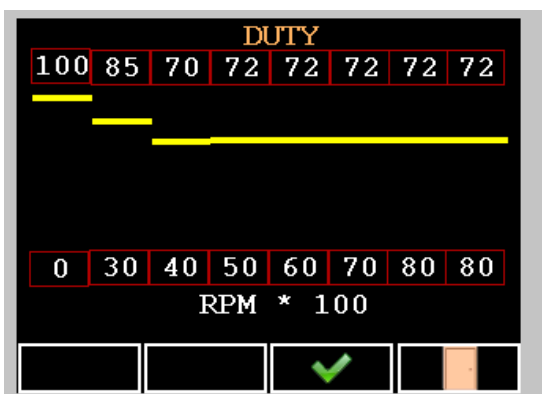
10.RPM preset 1



Regulate preset 1, rate of operation at each turn level, RPM.

Steps:

1. Press the settings key, up and right on the screen (tool icon).
2. Go to option 10.
3. Press the box with the listed number and the screen will appear 2 number lines.
4. The line on the bottom of the screen is about the number of rpm multiplied by 100.



The line on the top of the screen is about the duty cycle. Every rpm rate corresponds to one duty cycle rate.

Both lines are determined by you.

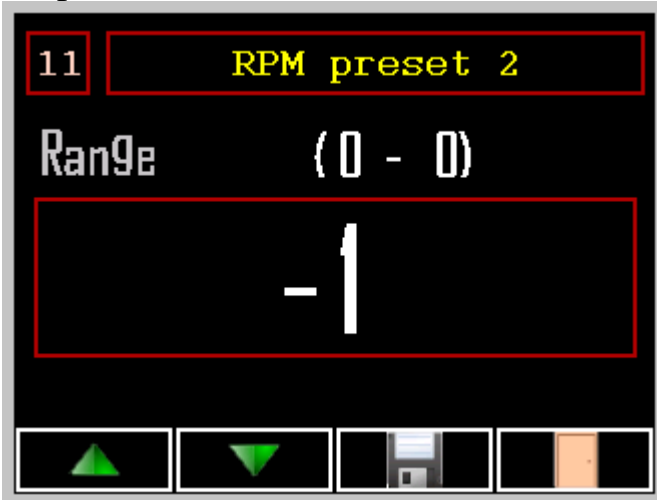
Press the number you would like to change and the number keypad will pop up.

5. Confirm your choice, press **OK**.
 6. Save your choice, press “hard drive” icon.
- Go to the next/previous setting, use arrow buttons.
 - Return to home screen, use “exit door” icon.

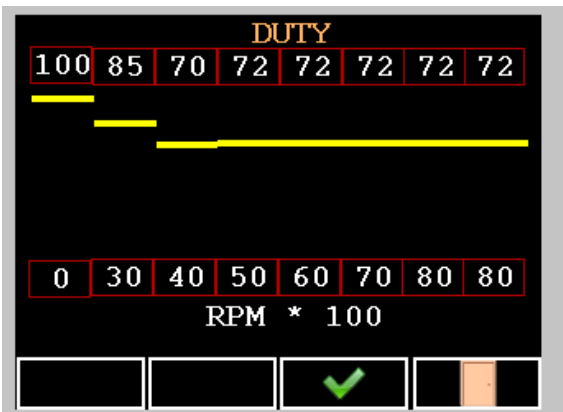
11.RPM preset 2

Regulate preset 2, rate of operation at each turn level, RPM.

Steps:



1. Press the settings key, up and right on the screen (tool icon).
2. Go to option 11.
3. Press the box with the listed number and the screen will appear 2 number lines.
4. The line on the bottom of the screen is about the number of turns multiplied by 100.



The line on top of the screen is about the operation rate.

Every turn level corresponds to one operation rate.

Both lines are determined by you.

Press the number you would like to change and the number keypad will pop up.

5. Confirm your choice, press **OK**.
7. Confirm your choice, press **OK**.
8. Save your choice, press “hard drive” icon.

- Go to the next/previous setting, use arrow buttons.

- Return to home screen, use “exit door” icon.

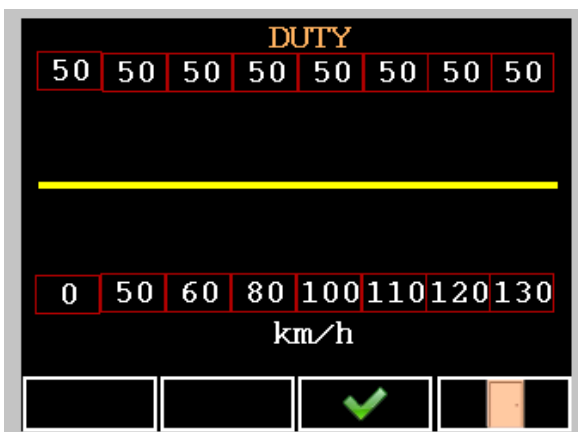
12.VSS preset



Regulate VSS preset.

Steps:

1. Press the settings key, up and right on the screen.
2. Go to option 12.
3. Press the box with the listed number and the screen will appear 2 number lines.



4. The line on the bottom of the screen is about speed.

The line on the top of the screen is about the operation rate.

Every speed level corresponds to one operation rate.

Both lines are determined by you.

Press the number you would like to change and the number keypad will pop up.

5. Confirm your choice, press **OK**.
6. Save your choice, press “hard drive” icon.

- Go to the next/previous setting, use arrow buttons.
- Return to home screen, use “exit door” icon.

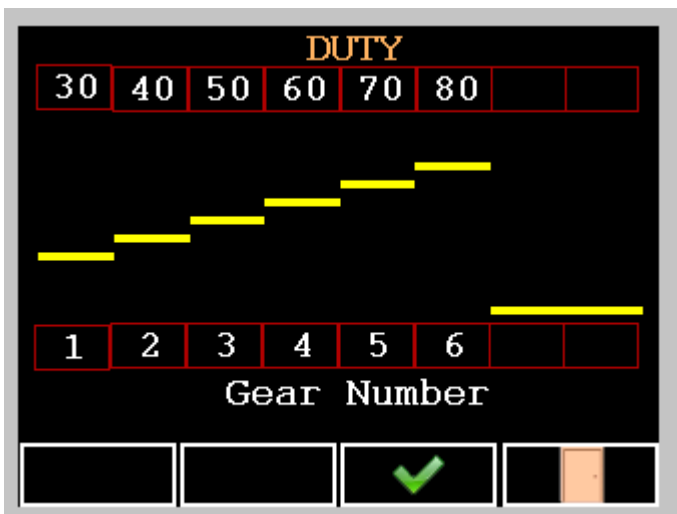
13.GEAR preset



Regulate GEAR.

Steps:

1. Press the settings key, up and right on the screen (tool icon).
2. Go to option 13.
3. Press the box with the listed number and the screen will appear 2 number lines.



- The line on the bottom of the screen is about speed.
The line on the top of the screen is about the operation rate.
Every speed level corresponds to one operation rate.
Both lines are determined by you.
Press the number you would like to change and the number keypad will pop up.
4. Confirm your choice, press **OK**.
 5. Save your choice, press “hard drive” icon.

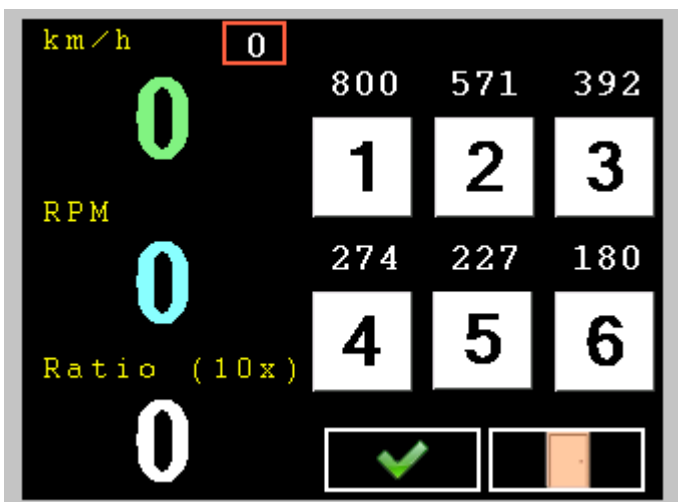
14.GEAR ratio calibration



Regulate **GEAR** ratio calibration.

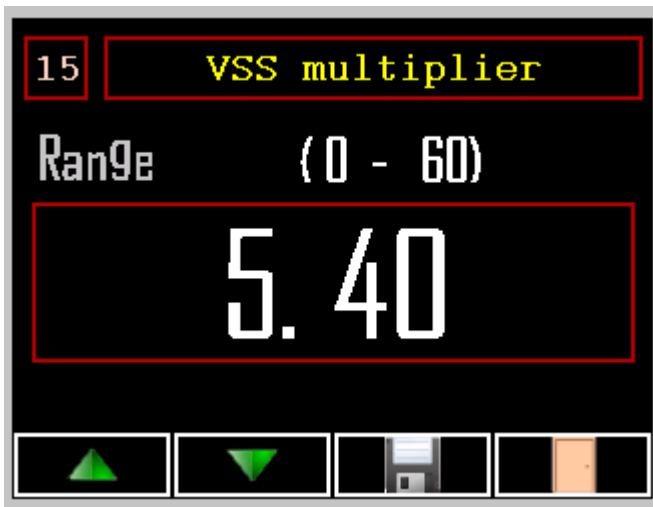
Steps:

1. Press the settings key, up and right on the screen (tool icon).
2. Go to option 14.
3. Press the box with the listed number and the setup screen will pop up.



4. Move with fixed rotors (e.g. 3000rpm) and choose all gearbox ratios.
5. For every ratio press the corresponding key on setup screen.
5. Confirm your choice, press **OK**
 6. Save your choice, press “hard drive” icon.

- 15. VSS multiplier (VSS)



Regulate VSS Factor.

Steps:

1. Press the settings key, up and right on the screen (tool icon).
 2. Go to option 15.
 3. Press the box with the listed number and the number keypad will pop up.
 4. Dial the multiplier which corresponds to your vehicle.
 5. Confirm your choice, press **OK**.
 6. Save your choice, press “hard drive” icon.
-
- Go to the next/previous setting, use arrow buttons.
 - Return to home screen, use “exit door” icon.

16. AFR Warning



Regulate AFR warning.

Steps:

1. Press the settings key, up and right on the screen (tool icon).
 1. Go to option **16**.
 2. Press the box with the listed number and the number keypad will pop up.
 3. Dial the boost you prefer, with restriction **0 έως 20**.
*At (zero) 0, AFR warning mode turns off.
 4. Confirm your choice, press **OK**
 5. Save your choice, press “hard drive” icon.
- Go to the next/previous setting, use arrow buttons.
 - Return to home screen, use “exit door” icon.

17. AFR Pressure



Regulate AFR pressure level.

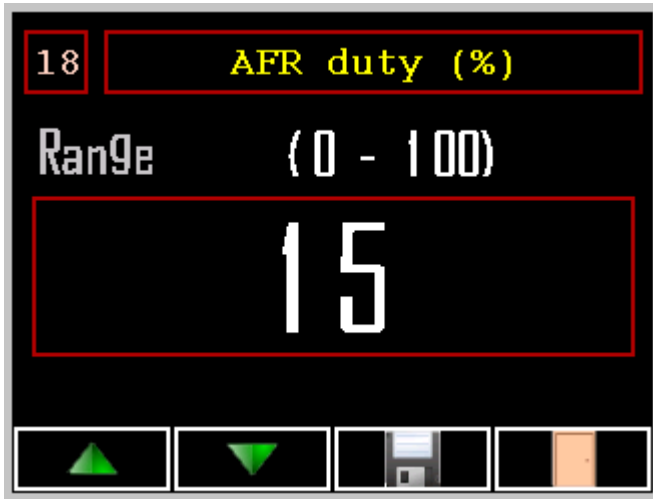
Steps:

1. Press the settings key, up and right on the screen (tool icon).
 2. Go to option 17.
 3. Press the box with the listed number and the number keypad will pop up.
 4. Dial the pressure you prefer, with restriction **0 to 3**.
 5. Confirm your choice, press **OK**.
 6. Save your choice, press “hard drive” icon.
- Go to the next/previous setting, use arrow buttons.
 - Return to home screen, use “exit door” icon.

18. AFR Duty %

Regulate the rate on which AFR will decrease after the warning.

Steps:

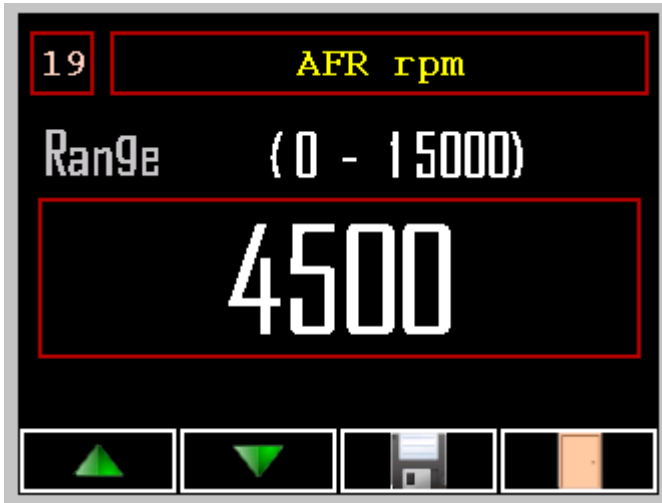


1. Press the settings key, up and right on the screen (tool icon).
 2. Go to option **18**.
 3. Press the box with the listed number and the number keypad will pop up.
 4. Dial the rate you prefer, with restriction **0 to 100**.
 5. Confirm your choice, press **OK**
 6. Save your choice, press “hard drive” icon.
- Go to the next/previous setting, use arrow buttons.
 - Return to home screen, use “exit door” icon.

19. AFR Rpm

Regulate AFR Rpm.

Steps:

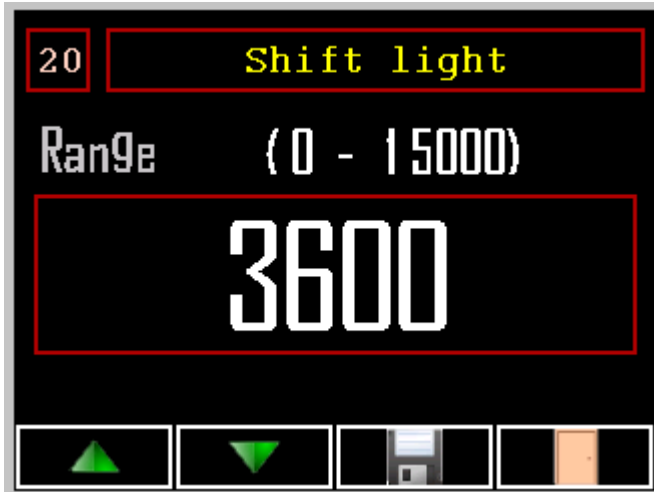


1. Press the settings key, up and right on the screen (tool icon).
 2. Go to option **19**.
 3. Press the box with the listed number and the number keypad will pop up.
 4. Dial the rate to prefer, with restriction **0 to 15000**.
 5. Confirm your choice, press **OK**
 6. Save your choice, press “hard drive” icon.
- Go to the next/previous setting, use arrow buttons.
 - Return to home screen, use “exit door” icon.

20. Shift light

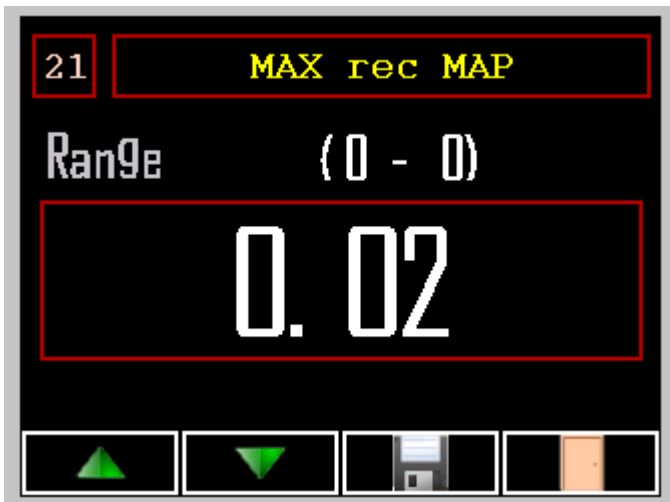
Regulate Shift light.

Steps:



1. Press the settings key, up and right on the screen (tool icon).
 2. Go to option **20**.
 3. Press the box with the listed number and the number keypad will pop up.
 4. Dial the rate you prefer, with restriction **0 to 15000**.
 5. Confirm your choice, press **OK**.
 6. Save your choice, press “hard drive” icon.
- Go to the next/previous setting, use arrow buttons.
 - Return to home screen, use “exit door” icon.

21. MAX rec MAP

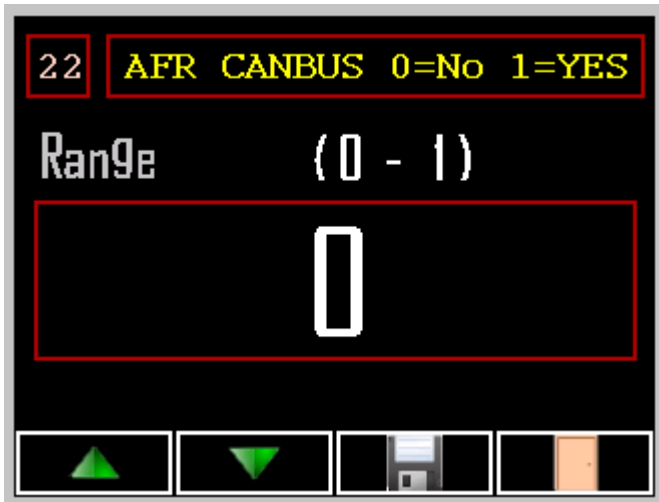


Eliminate MAX rec MAP

Steps:

1. Press the settings key, up and right on the screen (tool icon).
 2. Go to option **21**.
 3. Press the box with the listed number and the number keypad will pop up.
 4. Press **0**.
 5. Confirm your choice, press **OK**.
 6. Save your choice, press “hard drive” icon.
- Go to the next/previous setting, use arrow buttons.
 - Return to home screen, use “exit door” icon.

22. AFR CANBUS 0=NO 1=YES

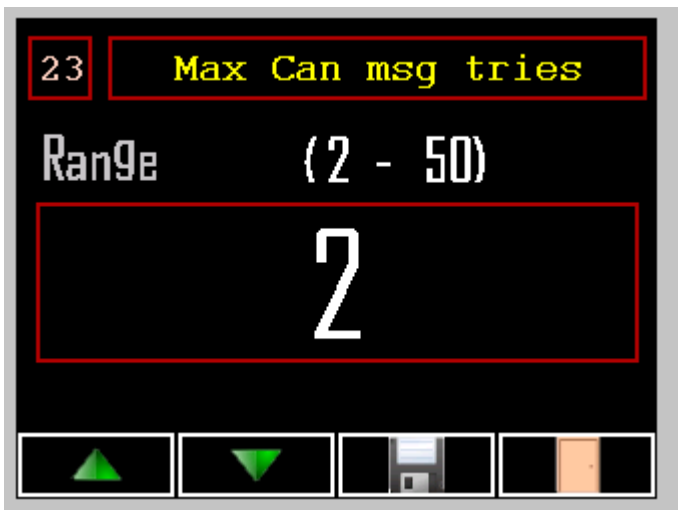


Regulate **AFR CANBUS**

Steps:

1. Press the settings key, up and right on the screen (tool icon).
 2. Go to option 22.
 3. Press the box with the listed number and the number keypad will pop up.
 4. Choose **0** to turn AFR CANBUS off or 1 to turn it on.
 5. Confirm your choice, press **OK**.
 6. Save your choice, press “hard drive” icon.
- Go to the next/previous setting, use arrow buttons.
 - Return to home screen, use “exit door” icon.

23. Max Can Msg Tries

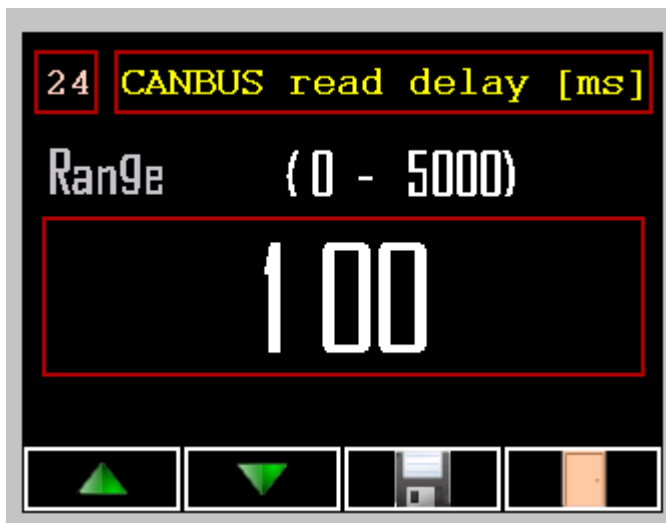


Regulate **MAX CAN MSG TRIES**

Steps:

1. Press the settings key, up and right on the screen (tool icon).
 2. Go to option **23**.
 3. Press the box with the listed number and the number keypad will pop up.
 4. Dial the number of tolerable failed efforts before return price being rejected as invalid. Recommended prices
For manually VAG : 2
For DSG VAG: 5
For OPEL: 15-20
 5. Confirm your choice, press **OK**
 6. Save your choice, press “hard drive” icon.
- Go to the next/previous setting, use arrow buttons.
 - Return to home screen, use “exit door” icon.

24. CANBUS read delay [ms]



Regulate CANBUS read delay (ms)

Steps:

1. Press the settings key, up and right on the screen (tool icon).
2. Go to option 24.
3. Press the box with the listed number and the number keypad will pop up.
4. Πληκτρολογήστε το χρόνο που επιθυμείτε να ανανεώνεται .
5. Confirm your choice, press **OK**
6. Save your choice, press “hard drive” icon.
7. Go to the next/previous setting, use arrow buttons.
8. Return to home screen, use “exit door” icon.

25. USE CANBUS 0=NO 1=YES



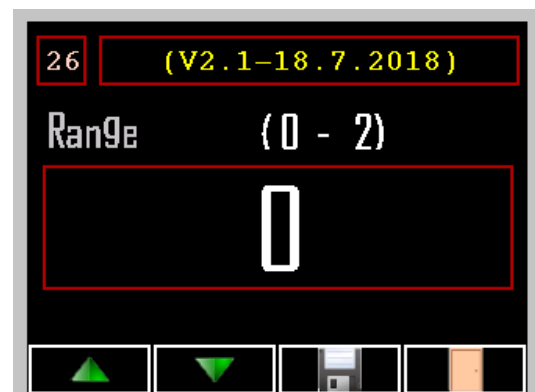
Regulate CANBUS.

Steps:

1. Press the settings key, up and right on the screen (tool icon).
 2. Go to option 25.
 3. Press the box with the listed number and the number keypad will pop up.
 4. Choose **0** to turn CANBUS off or **1** to turn it on.
 5. Confirm your choice, press **OK**
 6. Save your choice, press “hard drive” icon.
- Go to the next/previous setting, use arrow buttons.
 - Return to home screen, use “exit door” icon.

26. FIRMWARE MODE

On the display that appears firmware version is possible for 3 different- hidden CAN BUS modes to be registered. You should not change price 0 without a reason.



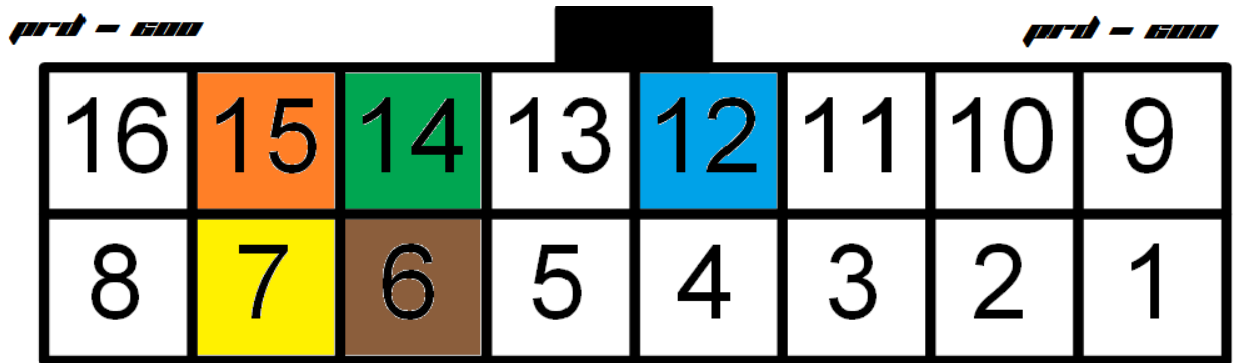
27. Restore to default settings



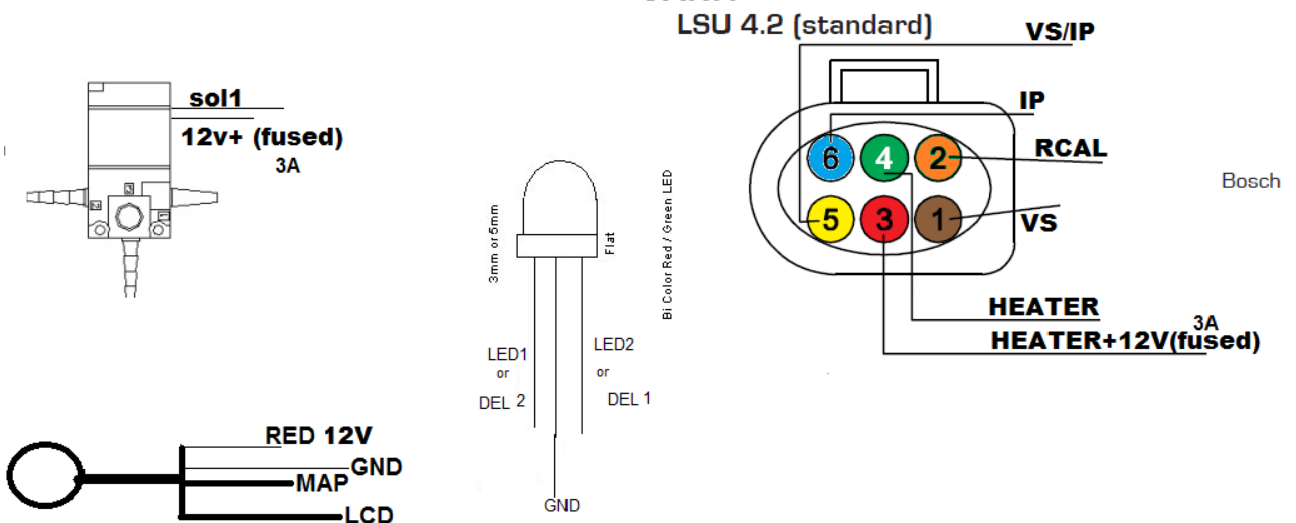
1. Press the settings key, up and right on the screen (tool icon).
2. Go to option 27.
3. Press the box with the listed number and the number keypad will pop up . Dial PIN number (1234).
4. Confirm your choice, press **OK**
5. Save your choice, press “hard drive” icon.

Wiring Guide

Version 1. (16pin) – If not canbus version then pin13 connects to grounding (GND)



- | | |
|-------------------------------|------------------------------|
| 1. RPM | 9. LED1 |
| 2. vss | 10. LED2 |
| 3. EGT | 11. SOL1 |
| 4. EGT+ | 12. IP |
| 5. HI/LOW (not in 12v) | 13. CANL (pin obd 14) |
| 6. vs | 14. HEATER |
| 7. VS/IP | 15. RECAL |
| 8. WDEBAND.0-5V | 16. CANH (pin obd 6) |



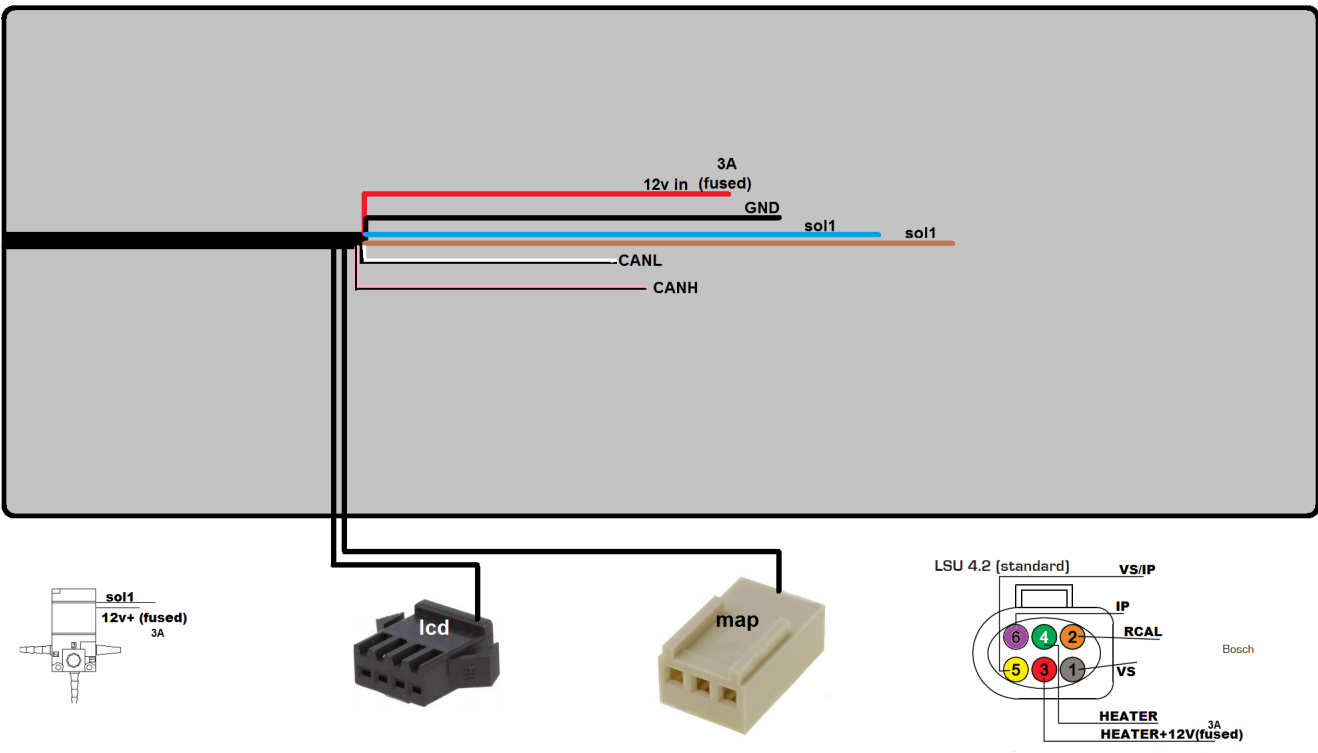
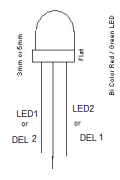
Version.2 (24pin)

Warning! For Lambda sensor (LSU 4.2 – standard) connection you should follow the color coding , not the numbering.

prd - 600

24	23	22	21	20	19	18	17	16	15	14	13
12	11	10	9	8	7	6	5	4	3	2	1

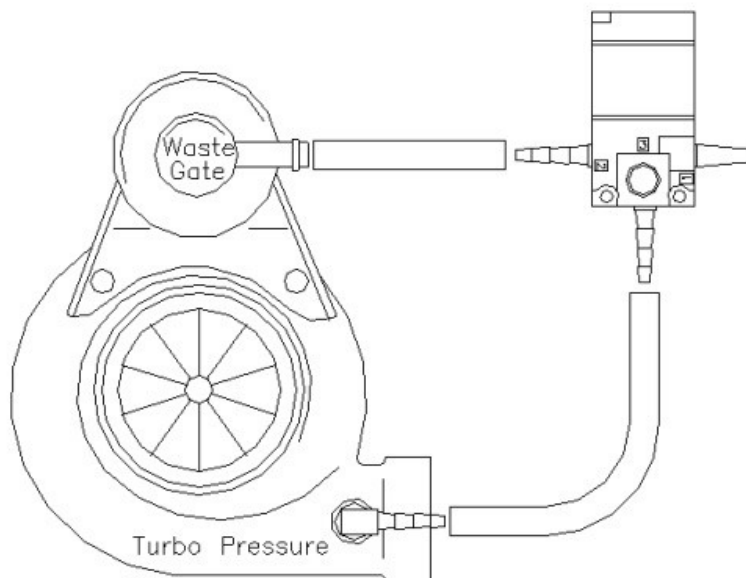
- | | | |
|--|------------|------------|
| 1. EGT | 9.RPM | 17.A1 |
| 2.LED1 | 10.VSS | 18.MAP |
| 3. EGT | 11.LCD(RX) | 19.HEATER |
| 4.LED2 | 12.IP | 20.LCD(TX) |
| 5.HI/LOW not in 12v | 13.CANH | 21.SOL2 |
| 6.VS | 14.CANL | 22.+5V |
| 7.VS/IP | 15.RECAL | 23.12V(IN) |
| 8. GND | 16.SOL1 | 24.GND |



MATERIAL CONNECTION

Please make sure that 4mm pipe is secured with tie wrap or clamp after the installation, to avoid detachment.

1. For engines like Toyota JZ and Mitsubishi 4G63 which incorporate fuel pressure control via electromagnetic valves, make sure to take the pressure from the line between multiple choice and electromagnetic valve.
2. During routing 4mm pipe via protection wall ("mirror") make sure to not crush it. If the pipe gets crushed, it will cause a problem on unit's correct operation. Also, make sure the pipe does not touch metal parts, like mirror's sheet metal, while installation.
3. Diagram 1:



Hookup for Internal Wastegates:

Port 1: Sintered Muffler

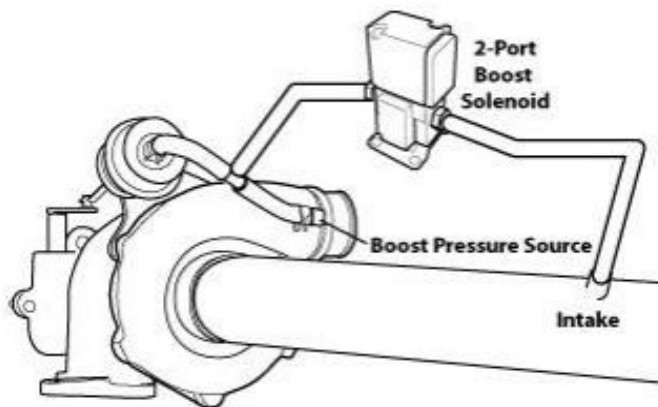
Port 2: Wastegate

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

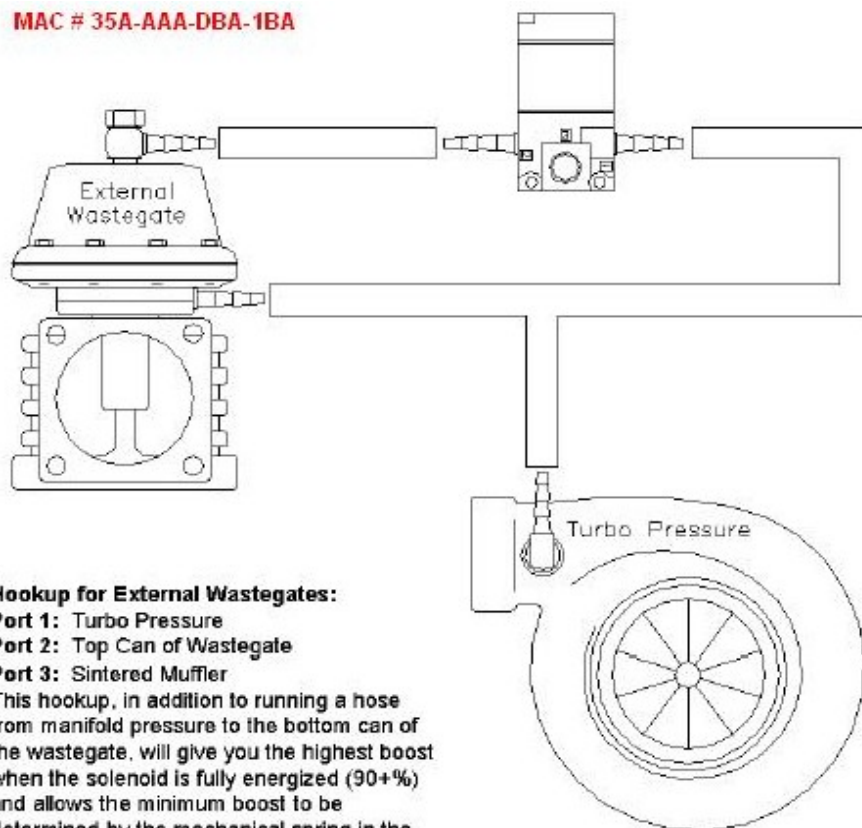
4. Diagram 2:



- Disconnect the link and the vacuum lines from the electromagnetic valves and shut up all the vacuum doors

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).

Important

- Place the valve unit to a cool place, where it cannot be heated or get wet.
- Ensure all under pressure links with clamps.
- During routing vacuum pipes, make sure to not rumple them.
- Make them as short as possible.
- It is normal for the unit valve to make sound.