

OLEDDBC Installation

The OLED Boost controller and LCD Boost controller are the same black box, if you attach an OLED screen to it, it's referred to as the OLEDBC, similarly if you attach an LCD screen to it, it's referred to as the LCDBC. Let's examine the different options they come in :

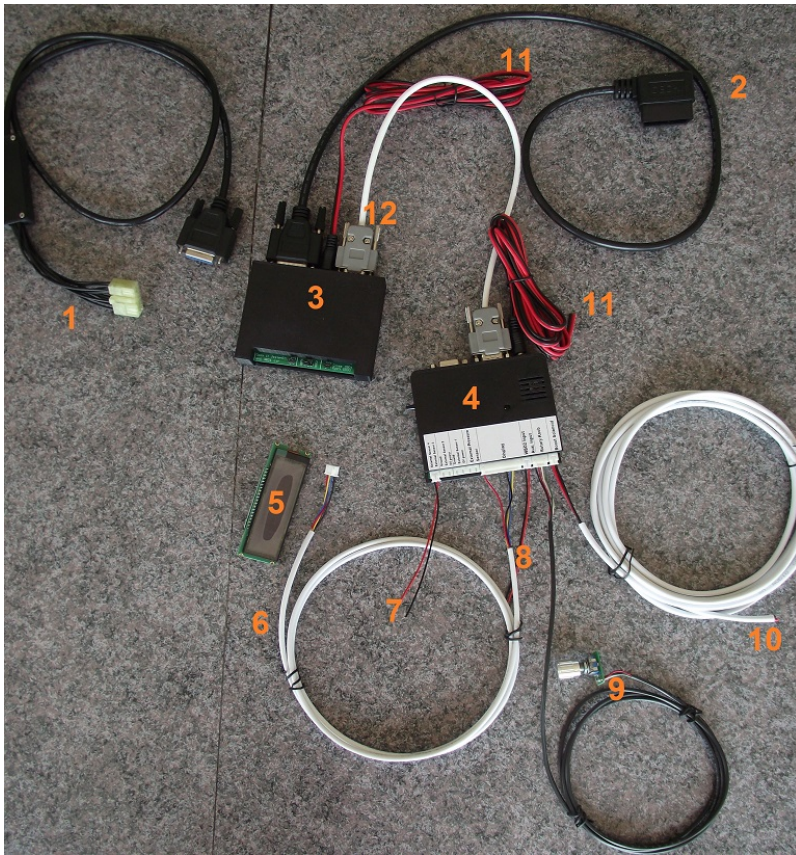
- choice of OBD1 cable, or OBD2/MUT cable,
- built-in boost pressure sensor or not,
- screen choice of OLED 4x20, OLED 2x16, or LCD screen 2x16,
- LCDBC-Addon allows communication to ABS, SRS, Climate Control, Electronic Suspension, Cruise Control, Automatic Transmission ECU, and ETACS.

Pictured below is the OLEDBC kit with the 4x20 display, you would normally have either the OBD1 cable or OBD2/MUT cable but not both.



1. OBD1 cable (1991-93).
2. OBD2/MUT cable (1994-99).
3. Power cord.
4. LCDBC main box with built-in boost pressure sensor.
5. OLED 4 x 20 display.
6. OLED wire harness.
7. External sensor harness 3&4 input to additional WBO2,etc.
8. Wideband O2 / Auxiliary input harness.
9. Rotary knob with harness.
10. Boost solenoid harness.

Pictured below is the OLEDBC 4x20 kit and LCDBC-Addon product, note the OBD1 and OBD2/MUT cable are different from above, they are thicker and use a larger connector.



1. DB15 OBD1 cable (1991-93).
2. DB15 OBD2/MUT cable (1994-99).
3. LCDBC Add-on box, allows communication to ABS, SRS, Climate Control, Electronic Suspension, Cruise Control, Automatic Transmission, ETACS and Engine computer.
4. LCDBC main box with built-in boost pressure sensor.
5. OLED 4 x 20 display.
6. OLED wire harness.
7. External sensor harness 3&4 input to additional WBO2, etc.
8. Wideband O2 / Auxiliary input harness.
9. Rotary knob with harness.
10. Boost solenoid harness.
11. Power cord cables.
12. Cable to link LCDBC unit.

Let's look at the available 3D printed ABS plastic parts Pictured below is the OLED 4x20 in the coin tray / cruise control location.



Pictured below is the OLED 4x20 with a two-piece air vent adapter. It is designed in two pieces for easier installation, and is installed in the factory air vent as shown.



In the picture below is the OLED 2x16 screen with steering wheel column adapter.



The OLEDBC comes in two flavors, one with built-in boost pressure sensor and one without. If you're planning to install an external boost pressure sensor inside the engine bay, the “no internal boost pressure sensor” version would make more sense. A 3mm thick wall vacuum hose is recommended for use with the internal pressure sensor, and is not included.



If you want to monitor other things such as oil pressure, fuel pressure, EGT, or a second wideband O2 sensor, you can hook them up to External Sensors 1, 2, 3 and 4 ports. These cables are not included, and can be ordered afterwards or during your initial purchase.

Hooking up your wideband O2 controller to the OLEDBC box.

To hook up your wideband O2 controller to this unit, first you need to refer to your manual and find out which color wire represents the 0 to 5 volt analog signal (not to be confused with the 0 to 1 volt signal). Once that has been determined, wire it to the 2-pin connector cable, note that the wire closest to the 12-pin Display port is the WBO2 input. The second wire of the 2-pin connector closest to the 4-pin Rotary Knob port, is the Auxiliary input – in most cases this will not be wired up to anything and has nothing to do with WBO2. Auxiliary input is used for Water/Alchy injection, when the fluid level is low/empty a switch to ground will allow you to run lower boost for safety reasons.

Don't forget to go to config menu and define your WBO2. If you don't have a WBO2, change it to none, and it will show the factory narrowband O2 voltages instead. On my wideband O2 controller, it uses 0 volts to represent 10 AFR, and 5 volts to represent 20 AFR, so I define WBO2 Low = 10, and WBO2 High = 20. Refer to your wideband O2 controller manual to see what AFR values you should use.

Power Wire Installation

To make installation easier, I used a product called “Add-a-fuse”, so no wire splicing was required to tap into 12 volts. The fuse style is called “Standard size ATC/ATO fuse”.

https://www.amazon.com/HUIQIAODS-Fuse-Holder-Standard-Profile-2pack/dp/B07T4PKYF8/ref=sr_1_9?dchild=1&keywords=add+a+fuse+atm&qid=1588763352&sr=8-9

If you are using the “LCDBC Addon” product, you **MUST** wire both units to a 12 volt source to ignition 1 (ACC1), this is where the power comes on the first ignition key rotation. The accessory cigarette power plug is also a good choice, as this provides power on ACC1.

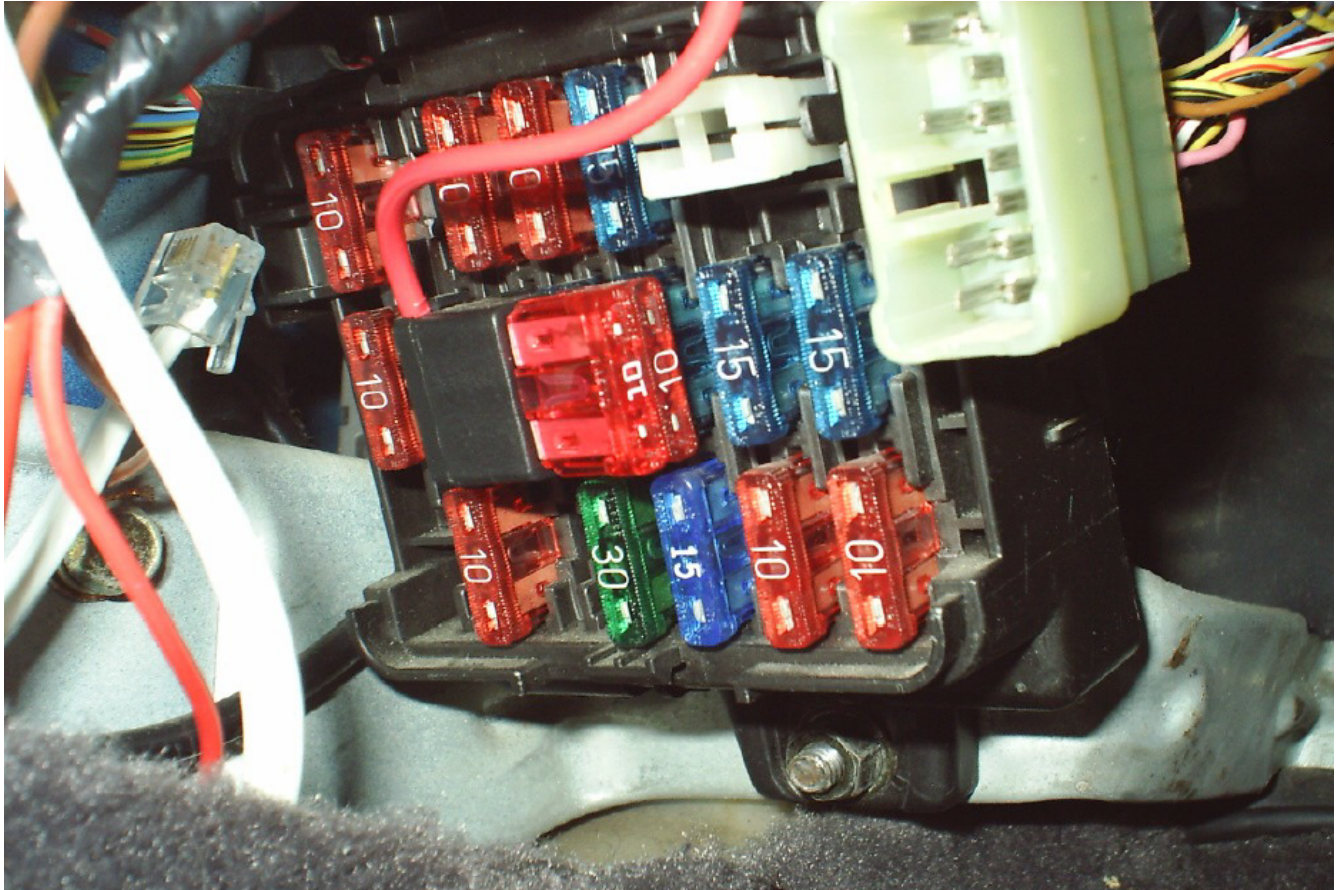
If you don't have the “LCDBC Addon” product, then ACC1 or ACC2 is fine.

Power cord:

Red wire requires 12 volts.

Black wire requires ground, I bolted mine to the engine ECU bolt, use any easy to access bolt that is attached to the chassis ground.

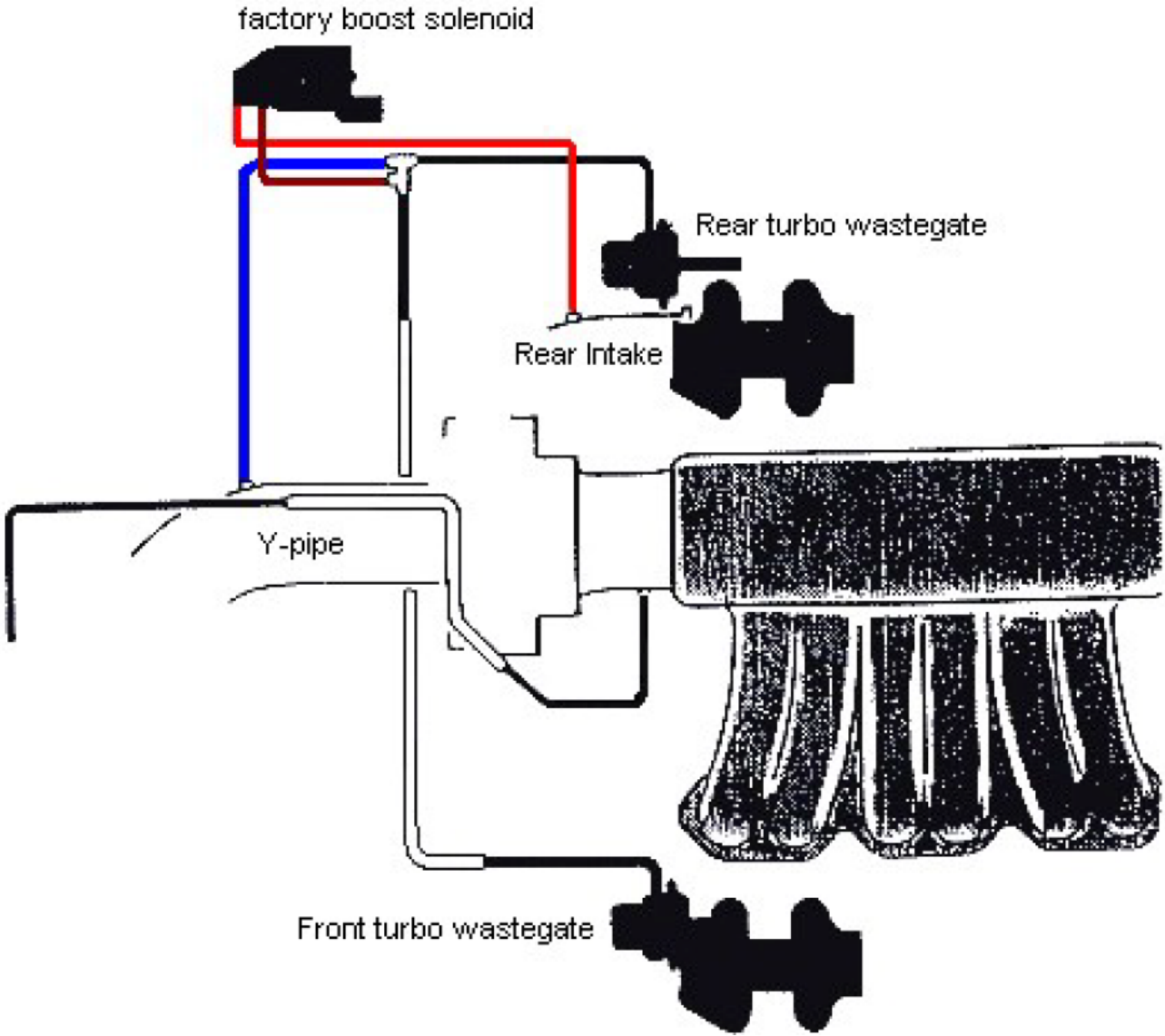
I don't recommend removing or inserting the power cord when the key is in ACC1 or ACC2 position providing power. You will most likely short it out before it is fully mated. If the internal fuse burns up, replace it with a 1 or 2 amp glass fuse (20mm in size).



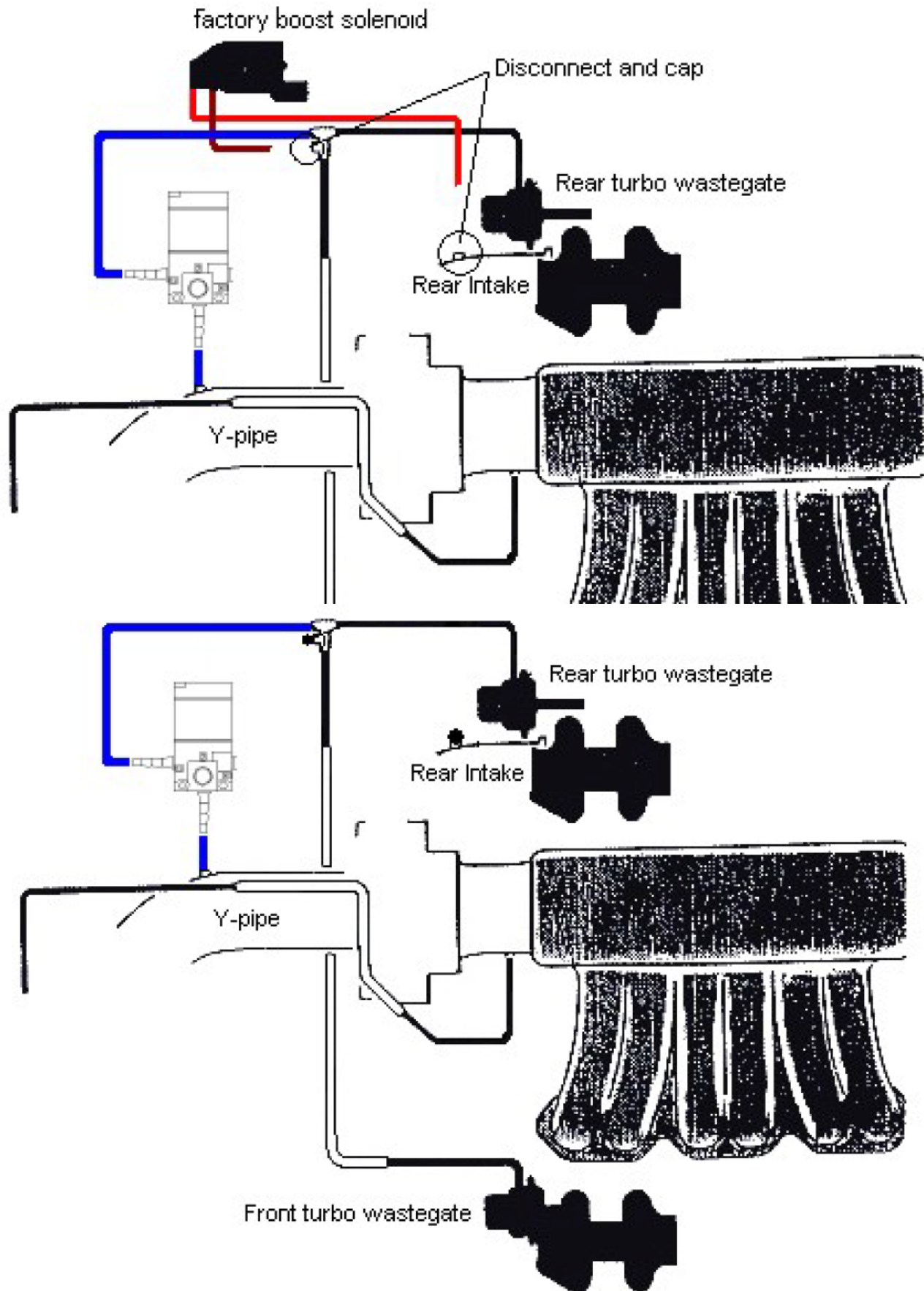
Installation of MAC boost solenoid

Part # 35A-AAA-DDBA-1BA

The diagram below represents the factory boost solenoid system for Dodge Stealth / Mitsubishi 3000GT VR4.



- Step 1: Disconnect the factory boost solenoid vacuum hoses and cap the exposed vacuum ports.
- Step 2: Replace with Mac boost solenoid, note each port is labelled with 1, 2 and 3.
- Step 3: Port 1 goes to nothing (you could add a vent to keep dirt out)
- Step 4: Port 2 goes to wastegate.
- Step 5: Port 3 goes to Y-pipe (boost source).



Step 6: Pass the 2-pin Boost solenoid wire harness through the engine firewall grommet. I chose the grommet nearby the clutch / steering wheel.

Step 7: I installed the OLEDBC behind the engine ECU / Radio, so I brought the boost solenoid wire harness to there.

Step 8: Zip-tie and keep the boost solenoid wire away from the hot intercooler pipe so it doesn't melt the wire insulation.

Step 9: Solder / Heat Shrink the Mac boost solenoid to the boost solenoid wire. Polarity does not matter, it's impossible to screw this up.

Note: if your vehicle is 1996 – 1999 it may throw a code for a missing OEM boost solenoid, just re-install it and don't hook up any hoses to it.

Installation of Vacuum hose for internal boost pressure sensor

Step 1: Choose a vacuum/boost source that is after the throttle plate. If you make a bad choice, you won't see any vacuum readings on the sensor. I chose to 'T' into my fuel pressure regulator.

Step 2: Route vacuum hose through the firewall, again I chose same firewall grommet as before.

Step 3: Attach vacuum hose to internal pressure sensor nipple, and a zip tie might be a good idea too.

Installation of Vacuum hose for external boost pressure sensor

Step 1: Choose a vacuum/boost source that is after the throttle plate. If you make a bad choice, you won't see any vacuum readings on the sensor. I chose to 'T' into my fuel pressure regulator.

Step 2: Choose a good location for your sensor's wires so they don't melt the insulation off. Use zip ties.

Step 3: Route wires through the firewall, again I chose same firewall grommet as before.

Step 4: Plug into external pressure sensor port.