



Electronic Boost Solenoid

Installation Instructions

Introduction

This electronic boost control solenoid (EBC) used in conjunction with eCtune allows you to regulate air going to the wastegate. This allows you to control the boost pressure the turbocharger creates via duty cycle which is configured in eCtune. This normally-closed solenoid features high flow, precise repeatability and consistent operation.

WARNING: You must have a functioning boost cut set at a safe level before attempting to install or configure this boost solenoid. Failure to do so may cause engine damage and possibly catastrophic failure.

ECU Compatibility

Your ECU must have the PWM components installed in order to be able to control the EBC solenoid.

- 1992-1995 USDM ECU's come with the circuitry required, but may be missing the required components inside the ECU. If your ECU supports EGR (Pin A11) or IAB/A.T. Lockup (Pin A17) then it most likely has the required circuitry to control the EBC solenoid.
- 1992-1995 JDM ECU's some of type ecu's can control the EBC solenoid with EGR, IAB or AT Lockup.

Technical Specifications

Part No: EBC-001

Power: 12 VDC / 5.4 Watts

Port Size: 1/8th" NPT

Solenoid Type: Normally Open

Pressure Capacity: VAC to 120 PSI

Recommended Operational Frequency: 31Hz

Wiring & Installation

Mount the solenoid securely in the engine bay. The solenoid will need to be wired in one of two ways depending on which ECU pin you use. Use the below list to determine which way to wire the solenoid.

Type 1 ECUs

JDM PR4(Manual) (EGR)

USDM/EDM ECU P06/P28/P30/(Auto/Manual) Pin A11 (EGR)

JDM ECU(Auto/Manual) Pin A11 (EGR)

Type 2 ECUs

JDM ECU P08/P30(auto) (AT lockup)

USDM/EDM ECU(Auto) Pin A17/A19 (AT Lockup)

Type 1 Installation (ECU Ground Output)

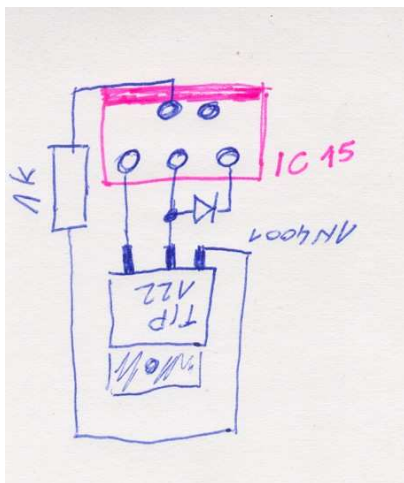
1. Disconnect the positive terminal of the car's battery.
2. Run a wire from ECU pin A11 to the EBC solenoid.
3. Run a wire from an ignition switched +12v to the solenoid. We recommend a 5 amp fuse between the solenoid and the power source.
4. Check all wire connections and reconnect the positive battery terminal.

Type 1A Hardware Installation

1. D14: 512-1n4002 (1N4002DICT-ND)
2. R70: 220 ohm (220ebk-nd)
3. R71: 330 ohm (330ebk-nd)
4. Q20: 526-nte2368 (2SB1030ARACT-ND)
5. Q29: 511-mje3055t (497-2573-5-ND)

Type 1B Hardware Installation(thanks to doc)

1. 1n4001 Diode (1n4001DICT-ND)
2. 1k ohm resistor (1.0KEBK-ND)
3. TIP122 (TIP122FS-ND)



Type 2 Installation (ECU +12v Output)**Pin A17 (A.T. Lockup/IAB)**

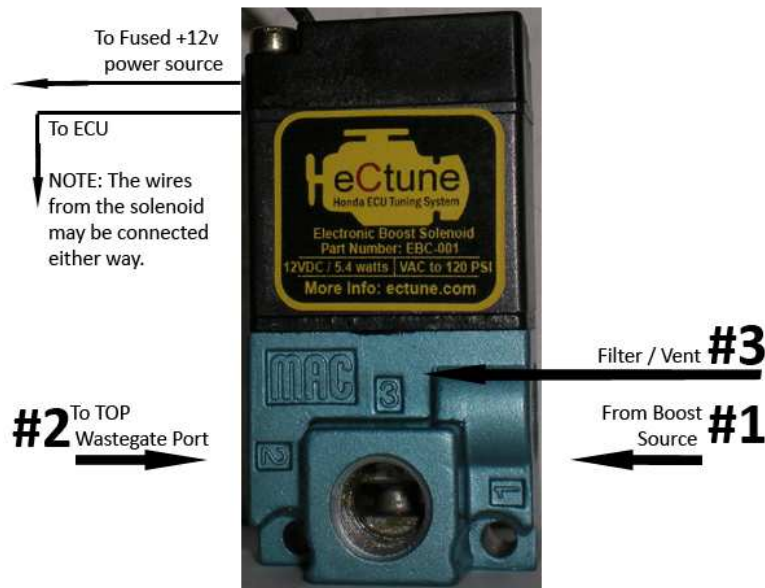
1. Disconnect the positive terminal of the car's battery.
2. Run a wire from ECU pin A17 to the EBC solenoid. We recommend a 5 amp fuse between the solenoid and the ECU.
3. Run a wire from a chassis ground to the solenoid.
4. Check all wire connections and reconnect the positive battery terminal.

Type 2 Hardware Installation

1. Add IC16 SK51515 or similar
2. ADD d13 1n4004 (1N4004DICT-ND)

Vacuum Hose Connection

Follow the steps and diagram below to properly connect the vacuum lines.



Connection Method 1(Wg Top Port)

1. Run a vacuum hose from the TOP port on the wastegate to the #2 port on the solenoid.
2. Ensure you have a boost pressure source connected to the SIDE port of the wastegate.
3. Run a vacuum hose from a boost source to the #1 port on the solenoid. We recommend using a boost source such as the nipple on the turbocharger's outlet, directly from the intake manifold, or from the charge piping.
4. Note: 100% Duty is max boost(actual), Solenoid should be **normally closed(NC)**.

Connection Method 2(Wg Side Port/Normal one port wastegate)

1. Run a vacuum hose from the SIDE port on the wastegate to the #2 port on the solenoid.
2. Run a vacuum hose from a boost source to the #1 port on the solenoid. We recommend using a boost source such as the nipple on the turbocharger's outlet, directly from the intake manifold, or from the charge piping.
3. Note: 100% Duty is min boost(actual), Solenoid should be **normally open(NO)**.

Connection Method 3(Wg bleed)

1. Install a Tee between boost source and wastegate.
2. Run a vacuum hose from the Tee to the #2 port on the solenoid.
3. Note: 100% Duty is max boost(actual), Solenoid should be **normally open(NC)**.

Installation Pictures:



Warranty/Disclaimer: This product is intended for off road use only and should NEVER be used on public highways. There is no warranty stated or implied due to the stress placed on competition automotive products. eCtune warrants all products to be free of defects for (30) days from the date of purchase. eCtune shall not be liable for any special, direct, indirect, incidental, or consequential damages, that might be claimed as a result of the failure of any part, including claims for delay, loss of profits, or labor. eCtune shall not be liable for any damage or injury to persons or property resulting from improper installation or misuse of any part subject to this warranty. There are no other warranties expressed or implied extending beyond those set forth above.