



PERFORMANCE / COMPETITION PRODUCTS

SET UP INSTRUCTIONS EVC IV PART #4503-RA006

IMPORTANT! Read all instructions before attempting to set up the EVC IV. When you begin the implementation, read through each mode's instructions again.

- 1. TO BEGIN:** On the back of the EVC unit is a switch marked "SW< >PO". If you have a single port, swing valve or internal type waste gate, select "SW". If you have a dual port, poppet or external type wastegate, select "PO".
- 2. LEARNING MODE:** The learning mode will enable the EVC IV to read your vehicle's normal boost curve. This information will widen your car's power bands in order to optimize the benefits of your turbo. For safety reasons we recommend going to a local drag strip to set the "Learning Mode". With the power on, push and hold the "Alt" button. While holding the "Alt" button push the "Sbc" button. The unit should emit an audible beep and the display should show an "L" for "Learning Mode". The EVC IV is now ready for your first test run. **IMPORTANT! Do not engage boost until the car is in third gear!** This will produce maximum load on the vehicle. As you start to accelerate, listen for the EVC IV to beep. This indicates that boost is engaged. Continue accelerating in third gear. When you reach the red line point, decelerate. **Warning! Do not pass red line!!** The first test pass is completed and the EVC display should now read "H". If your unit does not display "H" and still shows "L" your first pass was not successful. Try again. Once the first pass is successful and the unit displays "H" you are ready for your second pass. It is important to duplicate all aspects of your first run. Use the same stretch of the drag strip and the same rpm range. If your second pass is successful, the unit will emit an audible beep and go directly into the "Boost Pressure Setting". You can now skip down to step #5. If you have trouble setting the learning mode, you can skip this step and go directly to instruction #3 below.
- 3. STOCK BOOST SETTING:** Whenever the "low" and "set" are flashing, the EVC IV is asking you to input the "stock boost" setting. In order to do so turn the EVC's volume control knob all the way counter-clockwise. The unit's display should indicate "0:00" with "set" and "low" flashing. To adjust turn the EVC's volume knob until your maximum stock boost setting is displayed. Push the "Sbc" button. *Note: If at any time during the set up process the the display flashes "L" or "H", it is an indication that you need to calibrate the volume knob. If a flashing "L" is displayed, turn the volume knob all the way counter clockwise. If a flashing "H" is displayed, turn the volume knob all the way clockwise.*
- 4. STOCK BOOST "PLUS" SETTING:** In order to input your "stock boost plus", you must add .2 to your stock boost number. For example, if you entered .5 (7.25 psi) as your stock boost, you must input .7 as your boost plus setting (.5 + .2 = .7). Turn the volume knob until your stock boost plus setting is displayed then push the "Sbc" button.

Note: IF YOU HAVE ANY PROBLEMS AND WANT TO START AGAIN, YOU CAN RESET THE UNIT. With the ignition key in the on position and the power to the unit turned off, push and hold the "Mod" button. While holding the "Mod" button, push and hold the "Alt" button. Then while holding both "Mod" and the "Alt" buttons, push and hold the "Sbc" button. You should hear an audible beep. You can then go back to instruction #1 above. If you do not hear a beep, your unit may not have presets programmed to it.

- 5 **BOOST PRESSURE SETTINGS:** The unit will display "high" while flashing "set". Turn the volume knob until the desired boost number appears. **Immediately** push the "Alt" button. The unit will display "low" while flashing "set". Turn the volume knob until the desired boost number appears. **Immediately** push the "Mod" button. **IMPORTANT:** Your "High" setting must be equal to or higher than your "Low" setting. If a flashing "L" or "H" is displayed during this process of setting the boost pressures, you must recalibrate the volume knob. Please refer to the bold print in instruction #3 for re-calibration directions.
- 6 **OFFSET MODE:** This function enables you to calibrate your boost levels.

If you have completed the "Learning Mode", the offset should automatically be calibrated. You can verify by pushing the "Mod" button. If the display reads "100", your "offset mode" is correct and you can now advance to instruction #7.

If you have not completed the "Learning Mode", you need to calibrate the boost levels by adjusting the "Offset Mode". For example if you have a single port, swing valve or internal type wastegate and have programmed the EVC for a "low boost" of 1.0kg/cm² but it will only hit .9kg/cm². The "Low Offset Setting" allows you to adjust the offset in order to match your programmed number. In the example above if we dial the offset number down from 100 to 85, the readout for the boost you achieve should now match your programmed low boost of 1.0kg/cm². Be sure to follow the instructions below for the specific type of wastegate you are using. There are two offset modes. One for the "High" boost setting and one for the "Low" boost setting. Program the offset using even numbers only and between the range of 50 - 150. The default or normal setting is "100". To calibrate your "Offset Mode", follow only one set of instructions listed below.

Dual port, poppet or external type wastegates

If the display shows a lower boost than what you had programmed, raise the offset number. If the display shows a higher boost than what you had programmed, lower the offset number.

Single port, swing valve or internal type wastegates

If the display shows a lower boost than what you had programmed, lower the offset number. If the display shows a higher boost than what you programmed, raise the offset number.

- 7 **SCRAMBLE BOOST SETTING:** This setting allows you to run higher boost for a predetermined length of time simply by pushing the "Sbc" button. The additional scramble boost and time settings will be the same for both the high boost and low boost. To gain access to this function push the "Mod" button. The display should read "0.00". Input the amount of additional boost to be programmed by turning the volume knob. For example, if your boost is set at 1.1k/cm² and you want to be able to run at 1.3kg/cm² for a short duration of time you would dial in .2kg/cm² (1.1k/cm² + .2kg/cm² = 1.3kg/cm²).
- 8 **SCRAMBLE TIME SETTING:** This mode will set the duration of time the "Scramble Boost" will stay in effect. You can program this function to operate from 1 - 30 seconds. Push the "Mod" button. The display should read 00. Program the time duration for 1-30 seconds by turning the volume knob.

EVC IV SET UP INSTRUCTIONS CONTINUED

- 9 **WARNING BOOST SETTING:** This mode is a safety feature that will act as an override in the case of an overboost condition. When triggered the EVC IV display will turn red, set off a series of audible beeps and return your boost back to the stock level until you lift off of the throttle. For example: if your high boost setting is 1.1kg/cm2 and you want the warning boost setting to be .1kg/cm2 over your high boost setting you will set this mode at 1.2kg/cm2. (.1kg/cm2 + 1.1kg/cm2 = 1.2kg/cm2). To access this mode push the "Mod" button then dial in your setting by turning the volume control knob.
- 10 **AUTO ADJUST MODE:** Over a period of time as your turbocharger begins to wear and becomes less efficient, the boost pressure may drop. This mode allows the EVC IV to automatically adjust the wastegate in order to maintain the boost pressure. **WARNING!!** Because this mode will cause the turbo to work harder in order to produce the same boost pressure it will contribute to the turbo's deterioration. For this reason **we recommend the "Auto Adjust Mode" not be engaged.**

To turn the "Auto Adjust" mode off make sure the ignition key is on and the EVC power is off. While holding the "Mod" button, change the bypass switch on the back of the unit from its current position. Once you hear an audible beep return the switch back to its original position. Again there will be an audible beep.

- 11 **INHIBIT MODE:** The inhibit mode enables the EVC IV to be locked so that none of the features can be accidentally changed. To engage the inhibit mode, make sure the ignition key is on and the unit power is off. While holding down the "Alt" button change the position of the bypass switch on the back of the EVC. Release the "Alt" button and return the bypass switch back to its original position. The presets are now locked into the EVC IV. To turn the inhibit mode off, make sure the key is in the on position and the unit power is off. While holding down the "Sbc" button, change the position of the bypass switch on the back of the unit. Release the "Sbc" button and return the switch back to its original position. The inhibit mode is now off and all of your presets and programming can be changed.

EVC IV FLOW CHART

How to advance between functions after initial set up

