

# EVC ADJUSTMENT PROCEDURES

## PREADJUSTMENT

NOTE: DURING PREADJUSTMENT PROCEDURE NO.6, DO NOT AT ANY TIME BREAK ANY LOCAL, STATE, OR FEDERAL VEHICLE LAWS SUCH AS SPEEDING/RECKLESS DRIVING/ETC. VEHICLE GEAR SELECTION CAN BE SUBSTITUTED FOR A LOWER GEAR IF NECESSARY OR COMPLETE PROCEDURE CAN BE BYPASSED.

- 1) Confirm switch on back of controller is in correct position for type of wastegate. SW = internal PO = external
- 2) Confirm all hoses and wire connections are
  - ⇒ Installed correctly and secure.
  - ⇒ Secure as to prevent contact with sharp objects.
  - ⇒ Routed away from extreme heat such as exhaust manifold, turbocharger, Intercooler pipes.
  - ⇒ Allows clearance from fan, pulleys, belts, and other moving parts.
- 3) Start engine and allow it to reach operating temperature. Check for smooth engine idling. If the vehicle does not idle smoothly, check for vacuum leaks.
- 4) With engine running (Ignition on) EVC display should illuminate green with "3" showing on the LCD display.
- 5) "3" showing on the LCD display confirms EVC unit is in the self learning mode.
- 6) When in self learning mode drive vehicle under full boost condition (stock level) and have EVC evaluate engine turbocharger boost curve.
  - A) Drive vehicle full throttle in 3rd gear starting at idle (1000rpm). If vehicle is equipped with an automatic transmission use 2nd gear if possible. EVC display should illuminate red as soon as boost pressure is detected. When EVC display turns green and emits audible alarm, let off engine throttle. EVC display should illuminate green with a "2" showing on the LCD display. This completes the first step in the self learning mode.
  - B) Repeat prior step exactly as just performed (same boost levels, same RPM, same transmission gear, same road conditions, etc.). After 3 times, display should read 0 and color should be green with a continuous beeping noise. When vacuum is applied to EVC, self learning data will be stored in memory. You will need to complete this self learning mode before you can use (program) EVC utilizing the fuzzy logic feature.
  - C) If for some reason the self learning mode is not functioning properly or an error was made, turn off ignition then on again and start all over. This will cancel previous inputs and EVC will start over with the LCD display showing a "3" illuminating in green.
- 7) For vehicles equipped with a sequential turbocharger system, a slightly different self learning mode procedure must be completed.
  - A) Drive vehicle in 3rd gear to determine when (what RPM) second turbocharger activates.
  - B) Turn off ignition then on again to reset EVC.
  - C) Drive vehicle below 0 psi boost to 3rd gear at the point (RPM) right before second turbocharger activates.
  - D) Confirm EVC still displays a "3". Keep vehicle at a steady speed/RPM in 3rd gear then apply full throttle. EVC display should illuminate red as soon as boost pressure is detected. When EVC display turns green and emits audible alarm, let off engine throttle. EVC display should illuminate green with "2" showing on the LCD display. This completes the first step in the self learning mode.
  - E) Repeat prior step exactly as just performed (same boost levels, same RPM, same transmission gear, same road conditions, etc.). After 3 times, display should read 0 and color should be green with a continuous beeping noise. When vacuum is applied to EVC, self learning data will be stored in memory.
  - F) This procedure is somewhat difficult therefore HKS recommends bypassing step No. 7 and proceeding straight to step No. 8 below.
- 8) If self learning procedure cannot be done or is not desired you can cancel self learning procedure by pressing MODE button first, HIGH button second, then LOW button third during self learning mode.  
After this is performed, EVC should show boost set up mode. Enter peak OEM boost level by using HIGH and LOW button (you have to find out peak OEM boost level). After setting correct boost, hit SBC button to enter boost. OEM (stock) boost level can be set from 0.2 to 1.2 bar.