K5OS-CCM PROGRAMMING INSTRUCTIONS 17.1.1

Many of the features on the K5OS-CCM module can be programmed to your liking. Functions can be turned off or timing altered on certain features.

To program the module, use the following steps.

1) Open both driver and passenger door.
2) Place smart key fob out of proximity range of vehicle (approx. 2 meters)
3) Hold smart button on door handle longer than 3 seconds. Release the button. You will hear the car acknowledge and awaiting first digit of code.
4) Enter first digit by pressing the smart button quickly corresponding to the number. If digit is "0" do not enter anything and move on to next digit by holding down smart button longer than three seconds.
5) After all four digits have been entered; hold smart button on door handle down longer than 3 seconds and the car will acknowledge code by repeating code back to you by number of beeps. If code was accepted you should hear two beeps. If not accepted, you will hear four beeps.
6) You can enter multiple codes during programming, meaning one after another. Once you get confirmation of one code then move onto next.
7) If you lose track of where you are in the process, just close the door and open it up again to start over.

Programming Codes for the K5OS CANBUS Control Module (K5OS-CCM)

* To change the operating code, please make sure that the engine is off and both front drivers and passenger side door are open
* Make sure the smart key is more than 2 meters away from the car. Please see "Programming Instructions" on Page 6 for procedure.

* CODE 1234: Show firmware version
- No programming features affected with this code.
- You will hear the piezo sound as a firmware version.

* 0000: Enable/Disable Operation Test (Default : off)
- Switch between ON and OFF when entering code.
- If you enable this function, you will hear the piezo buzzer sound while K5OS-CCM is processing features.
- This function is not needed unless there are erors to test.

* 0002~0007 : Set low voltage (Default : 0004)
- We cannot guarantee the battery will be fully charged due to a multitude of situations that can arise. This value is a relative voltage to judge if the car battery is low.
- This will not be effective unless the operation code '0100' is ON.
- The last digit of the code is a value to judge of the low voltage.
- Available Code : 0002 (-0.2V) ~ 0007 (Max -0.7V)

- You will hear the piezo sound equal to the code you entered.

For example, the K5OS-CCM will measure the battery voltage when it enters standby mode after installation or reset. The battery voltage measured at this time was 12.6V. If you had entered the code "0006", the engine will be automatically started when the battery voltage is under 12.0V (12.6V - 0.6V = 12.0V). And then the K5OS-CCM will stop the engine after the time you have specified.

* 0100: Enable/Disable automatic engine start if low voltage (Default: OFF)
- Switch between ON and OFF whenever you enter this code.
- You will hear the piezo sound '2100' if ON, and '4100' if OFF.
- We do not guarantee that the battery will be fully charged because there are too many situations that can affect total battery charge.

* 0102 ~ 0115: Set amount of time after you initiate remote start that engine shuts off (Default: 5 minutes, Available: 2 ~ 15 minutes)
- This time refers to the amount of minutes you have from Remote start till you step on the brake pedal and turn control over to vehicle. If the time is exceeded than the engine will shut off. The last two digits of the code is the amount of minutes.
  - Available Code : 0102 (Min 2 minutes) ~ 0115 (Max 15 minutes)
  - You will hear the piezo sound equal to the code you entered.

* Code 0119 : Activate or deactivate your K5OS-CCM (Default : OFF)
- The K5OS-CCM will deactivate and perform no functions if you set this to ON.
- You will hear the piezo sound '2119' if ON, and '4119' if OFF.

* Code 0130 : Enable/Disable "Quick Remote Start" (Default : OFF) – Exclusive for Gasoline Engine
- Caution!! This feature is exclusively for the gasoline or hybrid engine. Do not set this feature to on for the diesel or LPG engine.
- Switch between ON and OFF whenever you enter this code.
- You will hear the piezo sound '2130' if ON, and '4130' if OFF.
- **ON** : The engine will be immediately started without waiting when remote start.

* Code 0141 : Enable/Disable wiring test
- Switch between ON and OFF whenever you enter this code.
- This function is only for special wiring test (Yellow color wire of the K5OS-CCM Power Connector).

1. Close the driver's door if you finish to enter the code. The module will wait forever unless you close the driver's door.
2. You will hear the piezo buzzer sound 3 times if succeed. 4 times if error.
3. Open the driver's door. It will wait forever unless you open the driver's door.

* 0152: Enable/Disable "Easy Start" (Default: OFF)
- Switch between ON and OFF whenever you enter this code.
  - You will hear the piezo sound '2152' if ON, and '4152' if OFF.
  - ON : The engine will be automatically be started if you step on the brake pedal

* 0155: Enable/Disable "Emergency Driving" (Default: OFF)
- Switch between ON and OFF whenever you enter this code. - You will hear the piezo sound '2155' if ON, and '4155' if OFF. - ON This will enable you to drive the car without the smart key.
- All electronic hardware (navigation, audio, ...) connected to the ACC power will not work because the module will not supply ACC power while emergency driving.
The K5OS-CCM is basically taking control of the engine. Some normal operating features are not in use so please drive at a slower speed.
Warning!!
We do not assume any responsibility for any accidents that occur during emergency driving.
To start an emergency driving, see the procedure below.
  1.   Open the driver's door using the password when all doors are locked.

  2.   Open the driver's door only, enter the password again. When you finish entering the correct password, the piezo buzzer
will sound three times.

  3.   Close the driver's door.

  4.   After a few moments the engine will start.

  5.   Open the door and step on the brake pedal within 30 seconds.

  6.   To indicate emergency driving mode is ready the lights, heating (or air conditioning) will turn off for 1 second and then turn on.

OPERATING CODE To stop an emergency driving, see the procedure below.
  1.   Parking.

  2.   Exit the vehicle.

  3.   Close all doors and trunk.

  4.   Push the "Smart Button" longer than three seconds and release the button.

  5.   The engine will stop after the piezo buzzer sound 3 times..

* 0201 ~ 0224: Set interval to monitor the low voltage (Default: 1 hour, Available: 1 ~ 24 hours)
- Time interval to monitor the car battery's voltage.
- It will be effective only if the automatic engine start operation '0100' is ON. - The last two digits of the code are the time. (Unit: hour)
- Available Code : 0201 (Min 1 hour) ~ 0224 (Max 24 hours)
- You will hear the piezo sound equal to the code you entered.

* 0245: Set forced off lights (Default: OFF)
- Switch between ON and OFF whenever you enter this code.
- You will hear the piezo sound '2245' if ON, and '4245' if OFF.
- If ON, the lights will be turned off in all situations. To do this, the module will unlock the door and then lock.

* 0252 : Enable/Disable lock the door after remote start (Default : OFF)
- Switch between ON and OFF whenever you enter this code.
- You will hear the piezo sound '2252' if ON, and '4252' if OFF.
- If ON, the K5OS-CCM will lock the door again after starting the engine if you clich twice the lock button on the smart key.
- This function should be set to ON if your car, especially Hyundai IX 35, unlock the door by itself whenever you turn the power off.

* 0304 ~ 0315: Set time to charge the battery (Default: 5 minutes)
- Time interval for battery charge if low voltage occurs.
- It will be effective only if the automatic engine start operation '0100' is ON. - The last two digits of the code are the time. (Unit: minute)
- Available Code : 0304 (Min 4 minutes) ~ 0315 (Max 15 minutes)
- You will hear the piezo sound equal to the code you entered.

* 0320 ~ 0322 : Extend waiting time for stepping on the brake (Default : 0)
- The K5OS-CCM will wait 30 seconds until you step on the brake if you open the door after remote start.
- You can extend waiting time for stepping on the brake since open the door after remote start.
- This feature is ideal for disabled drivers that can't enter the car quickly
- The last one digit of the code is a time. (unit : minute)
- Available Code : 0320 (Min 0) ~ 0322 (Max 2 minutes)
- You will hear the piezo sound equal to the code you entered.

* 0333 : Enable/Disable the hazard lamp while Stop&Go and Safe Turbo (Default : ON)
- Switch between ON and OFF whenever you enter this code.
- You will hear the piezo sound '2333' if ON, and '4333' if OFF.
- OFF: The moudle will does not turn on the hazard lamp while Stop&Go and Safe Turbo.

* 0342 : Enable/Disable driver's seat control by CAN (Default : OFF)
  - Switch between ON and OFF whenever you enter this code.
  - You will hear the piezo sound '2342' if ON, and '4342' if OFF.
  - ON : The K5OS-CCM may control the driver's seat by CAN communication without additional wiring.
  - This feature will be available only for vehicle which can be applied.

* 0351 : Enable/Disable automatic sunroof close when driver's door open (Default : OFF)
  - Switch between ON and OFF whenever you enter this code.
  - You will hear the piezo sound '2351' if ON, and '4351' if OFF.
  - ON: The module will automatically close the sunroof when you open the driver door after stop the engine.
  - OFF: The module will automatically close the sunroof after automatically lock the door.

` 0354: Enable/Disable automatic blind opener when engine is started (Default: OFF)
- Switch between ON and OFF whenever you enter this code.
- You will hear the piezo sound '2354' if ON, and '4354' if OFF.
- Only available for vehicles equipped with this feature.
- ON: The module will open the blind of the sunroof when you start the engine.

* 0405 ~ 0412: Set time interval for remote start of engine (Default: 6 seconds, Available: 5 ~ 12 seconds)
 - Warning!! Do not set if you are not an expert.
 -The last two digits of the code is a time. (Unit: second)
 - Available Code : 0405 (Min 5 seconds) ~ 0412 (Max 12 seconds)
 - You will hear the piezo sound equal to the code you entered.

* 0414~0419 : Set Normal Alternater's Voltage Limit (Default : 0414)
- This value is a relative voltage to judge that the engine is successfully started if you
 did remote start.
- This will not be effective unless the operation code '0905' is ON. For the 0905 code,
 some vehicles are already set to ON.
- The last one digit of the code is a value to judge of the low voiltage.
- Available Code : 0414 (-0.4V) ~ 0019 (Max -0.9V)
- You will hear the piezo sound equal to the code you entered.

 For example, the K56OS-CCM will measure the alternator's voltage while you set up the
 module after install or reset. We asume that the alternator's voltage measured at
 this time was 14.3V. If you had entered the code "0406", the module will jugde
 that the engine start is fault if the alternator's voltage is lower than 13.7V
 (14.3V - 0.6V = 13.7V) after starting the engine.
 If so, the K5OS-CCM will stop the engine and retry the start process.

* 0421 : Enable/Disable Memory Seat Compatiblity (Default : OFF)
- Switch between ON and OFF whenever you enter this code.
- You will hear the piezo sound '2421' if ON, and '4421' if OFF.
- Do not set this operating code to ON unless the car has the memory seat control feature.
- ON: The automatic door lock function will be run only if the smart key goes out through the driver door.

* 0424 : Enable/Disable automatic lock (Default : ON)
- Switch between ON and OFF whenever you enter this code.
- You will hear the piezo sound '2424' if ON, and '4424' if OFF.
- OFF: The module will not automatically lock the door .

* 0430 : Enable/Disable remote start after unfolding the outside mirror (Default : OFF)
- Switch between ON and OFF whenever you enter this code.
- You will hear the piezo sound '2430' if ON, and '4430' if OFF.
- ON: The K5OS-CCM will start the engine after unfolding the outside mirror.
 This feature will be especially helpful for the Hyundai AZERA and Kia CADENZA models, which do not automatically unfold the outside mirror after remote start.

* 0431 : Enable/Disable automatic outside mirror folding control (Default : ON)
- Switch between ON and OFF whenever you enter this code.
- This code will be effective to the car that does not fold the outside mirrors unless you push LOCK twice.
- If you enter the code '0431', you will hear the piezo sound '2431' if ON, and '4431' if OFF.

* 0432 : Enable/Disable automatic outside mirror unfolding control (Default : ON)
- Switch between ON and OFF whenever you enter this code.
- This code will be effective to the car that does not unfold the outside mirror unless UNLOCK twice.
- If you enter the code '0432', you will hear the piezo sound '2432' if ON, and '4432' if OFF.

* 0435 : Switch key combination to control the sunroof (Default : OFF)
- Switch between ON and OFF whenever you enter this code.
- You will hear the piezo sound '2435' if ON, and '4435' if OFF.
- OFF: LOCK-UNLOCK-LOCK for tilt open the sunroof, LOCK-UNLOCK-UNLOCK-LOCK for slide open.
- ON: UNLOCK-UNLOCK-LOCK for slide open the sunroof, UNLOCK-UNLOCK-LOCK-LOCK for tilt open.

* 0451 : Disable / Enable the sunroof control (Default : OFF)
- Switch between ON and OFF whenever you enter this code.
- You will hear the piezo sound '2451' if ON, and '4451' if OFF.
- ON: All functions to control the sunroof will be disabled.

* 0472~0475 : Extend waiting time for automatic lock (Default : 0)
- The K5OS-CM will wait 5~6 seconds to lock the door automatically.
- This allows you to extend waiting time to lock the door.
- The last one digit of the code is a time. (unit : second)
- Available Code : 0472 (Min 2 seconds) ~ 0475 (Max 5 seconds)
- You will hear the piezo sound equal to the code you entered.

* 0501 ~ 0515 : Set waiting time for "Stop&Go" (Default : 5 minutes)
 - Set the time to wait till stop the engine since a time activated "Stop&Go".
 - The last two digits of the code is a time. (unit : minute)
 - Available Code : 0501 (Min 1 minute) ~ 0515 (Max 15 minutes)
 - You will hear the piezo sound equal to the code you entered.

* 0524 : Enable/Disable the shock sensor monitoring (Default : OFF)
 - Switch between ON and OFF whenever you enter this code.
 - You will hear the piezo sound '2524' if ON, and '4524' if OFF.
 - This will not be effective unless you connect the shock sensor output (GND) to the K5OS-CCM.

* 0532 : Enable/Disable using the fog lamp by shock sensor (Default : OFF – High Beam)
 - Switch between ON and OFF whenever you enter this code.
 - You will hear the piezo sound '2532' if ON, and '4532' if OFF.
 - It will be effective only if the shock sensor monitoring operation '0524' is ON.
 - This will not be effective unless you connect the shock sensor output (GND) to the K5OS-CCM.

* 0535 : Enable/Disable SMS if the car gets shock (Default : OFF)
 - Switch between ON and OFF whenever you enter this code.
 - It's available only if your car has already installed and activated Hyunida BlueLink or Kia UVO system.
 - You will hear the piezo sound '2535' if ON, and '4535' if OFF.

* 0541 : Enable/Disable the hazard lamp while reversing (Default : ON)
 - Switch between ON and OFF whenever you enter this code.
 - You will hear the piezo sound '2541' if ON, and '4541' if OFF.

* 0544 : Enable/Disable "Stop&Go" and "Safe Turbo" (Default : ON)
 - Switch between ON and OFF whenever you enter this code.
 - You will hear the piezo sound '2544' if ON, and '4544' if OFF.
 - OFF: You cannot use the "Stop&Go" and "Safe Turbo".

* 0563 : Enable/Disable the window/sunroof closer for "Stop&Go" (Default : OFF)
 - Switch between ON and OFF whenever you enter this code.
 - You will hear the piezo sound '2544' if ON, and '4544' if OFF.
 - ON: The module will close all windows and/or sunroof after stopping the engine if you enable "Stop&Go".

* 0601 ~ 0605 : Set the time for "Safe Turbo" (Default : 2 minutes)
 - Set the time to wait till stop the engine since a time activated "Safe Turbo".
 - The last digit of the code is a time. 0601 (Min 1 minute) ~ 0605 (Max 5 minutes)
 - You will hear the piezo sound equal to the code you entered.

* 0622 : Switch between "Stop&Go" and "Safe Turbo" (Default : OFF)
 - Switch between ON and OFF whenever you enter this code.
 - You will hear the piezo sound '2622' if ON, and '4622' if OFF.
 - OFF: Briefly press the "Smart Button" for "Stop&Go", long click for "Safe Turbo". If ON, vise versa.

* 0700 : Show Battery Voltage
  - You will hear the voltage of the car battery as the piezo sound after 6 minutes if
    the K5OS-CCM enters sleep mode.
  - There will be difference between the actual voltage and the measured because the electric modules
    on the car is still working.

* 0712 ~ 0730 : Set the time to turn on the high beam or fog lamps (Default : 20 seconds)
  - It will be effective only if the shock sensor monitoring operation '0524' is ON.
  - The last two digits of the code is a time. 0712 (Min 12 seconds) ~ 0730 (Max 30 seconds)
  - You will hear the piezo sound equal to the code you entered.

* 0802 ~ 0806 : Set the interval time to blink the hazard lamp (Default : 4 seconds)
  - Set the interval time to blink the hazard lamp while "Remote Start", "Stop&Go" andr "Safe Turbo".
  - The last one digit of the code is a time. 0802 (Min 2 seconds) ~ 0806 (Max 6 seconds)
  - You will hear the piezo sound equal to the code you entered.

* 0808 ~ 0828 : Set the cranking time (Default : 1 second)
  - Warning!! Warning!! Do not enter this code without consultation.
  - This will keep running the starting motor to start the engine when you do the remote start.
  - The last two digits of the code is a time. (unit : 1/10 second)
  - Available Code : 0808 (Min 0.8 seconds) ~ 0828 (Max 2.8 seconds)
  - You will hear the piezo sound equal to the code you entered.

* 0900 : Enable/Disable the piezo buzzer sound (Default : ON)
  - Switch between ON and OFF whenever you enter this code.
  - You will hear the piezo sound '2900' if ON, and '4900' if OFF.
  - ON: You will hear the piezo sound if you do the remote start and entering to the sleep mode.

* 0901 : Change remote start verification method (Default : OFF)
  - This operating code may be set if the engine stops running within 10 seconds
    after successful remote engine start.
  - Switch between ON and OFF whenever you enter this code.
  - You will hear the piezo sound '2901' if ON, and '4901' if OFF.

* 0903 : Enable/Disable Data Verification after remote start (Default : ON)
  - Warning!! Do not enter this code without consultation.
  - Switch between ON and OFF whenever you enter this code.
  - You will hear the piezo sound '2903' if ON, and '4903' if OFF.

* 0905 : Enable/Disable Voltage Verification after remote start (Default : OFF)
  - Warning!! Do not enter this code without consultation.
  - Switch between ON and OFF whenever you enter this code.
  - You will hear the piezo sound '2905' if ON, and '4905' if OFF.

* 0909 : Enable/Disable main CPU clock while monitoring the battery voltage (Default : OFF)
  - Warning!! Do not enter this code without consultation.
  - Switch between ON and OFF whenever you enter this code.
  - You will hear the piezo sound '2909' if ON, and '4909' if OFF.

* 0911 : Reset all settings including the password
- This will remove all custom settings including the password and set the K5OS-CCM back to default