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EMCS OWNERS MANUAL

A detailed guide to program switching

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1.1

Performance Without Compromise

Welcome to the APR family. Our sole mission is to engineer only the highest quality tuning solutions for Volkswagen, Audi and Porsche vehicles ensuring the enthusiast the ultimate driving experience while consistently providing the enthusiast the ultimate in customer care and support.

EMCS is APR's revolutionary patented Enhanced Modular Chipping System. EMCS is an industry leading technology that brings many new features to the automotive enthusiast. This technology was developed exclusively by APR, LLC and demonstrates APR's continued commitment to lead the industry with the most technologically advanced products available.

APR's ECU Upgrade is developed to work within the OEM and Tier 1 Supplier specifications for engine component stress tolerances and performance specifications. APR's ECU upgrades are available in octane specific versions to allow you to take full advantage of the fuel quality available in your area. APR's patented EMCS functionality puts the control of the engine's operation at your finger tips and allows for additional features and options to be installed to your OEM ECU.

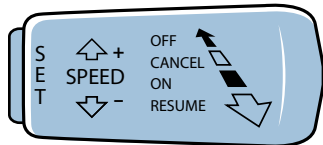
Please take a moment to review the following pages and learn about the product this company was founded on. Thank you for choosing APR and enjoy your enhanced driving experience.

— The APR Team

1.2

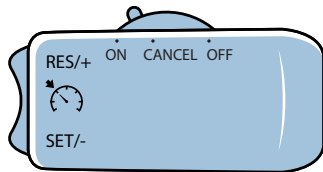
Identifying Your Stalk Type

All EMCS control is facilitated through the cruise control stalk. The visual guide below will help you identify which stalk you have for quick reference and instruction.



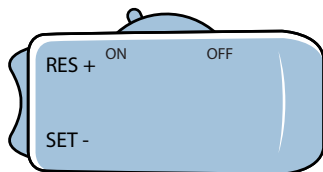
Type A

Cruise control stalk separate from turn signal stalk.



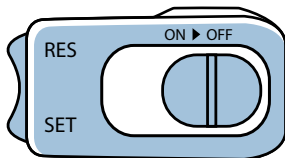
Type B

Cruise control stalk integrated into turn signal stalk.



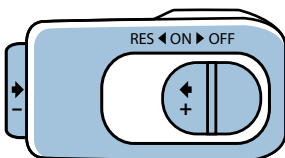
Type C

Cruise control stalk integrated into turn signal stalk.



Type D

Cruise control stalk integrated into turn signal stalk.



Type E

Cruise control stalk integrated into turn signal stalk.

EMCS Programs & Features

2.1 Unique Security Code:

The unique security code is the key to locking and unlocking your software. Enter the security code to gain access to program switching if security lockout is enabled, or to disable the anti-theft feature. This option becomes available when purchased.

2.2 Program Switching:

When multiple programs have been purchased, accessing each program is coordinated by pressing, holding and releasing the designated stalk-specific button during one of the following sequences. Note: CEL = Check Engine Light

Program 1 - 1 CEL Blink per Second

(blink, pause, blink, pause, blink, pause, blink, pause)

Program 2 - 2 CEL Blinks per Second

(blink blink, pause, blink blink, pause, blink blink, pause, blink blink, pause)

Program 3 - 3 CEL Blinks per Second

(blink blink blink, pause, blink blink blink, pause, blink blink blink, pause, blink blink blink, pause)

Program 4 - 4 CEL Blinks per Second

(blink blink blink blink, pause, blink blink blink blink, pause, blink blink blink blink, pause, blink blink blink blink, pause)

2.3 Fault Code Erase (FCE) and Throttle Body Alignment (TBA):

Until now the ability to erase fault codes has been something reserved only for those with the proper tools. By purchasing this option you have the ability to erase most fault codes that may cause a check engine light (CEL) in your car. Be advised, if you do not know what is causing the CEL, professional diagnosis is recommended before clearing it.

2.4 Locking Out Your ECU:

Purchasing this feature will allow you to temporarily disable and prevent unauthorized program switching.

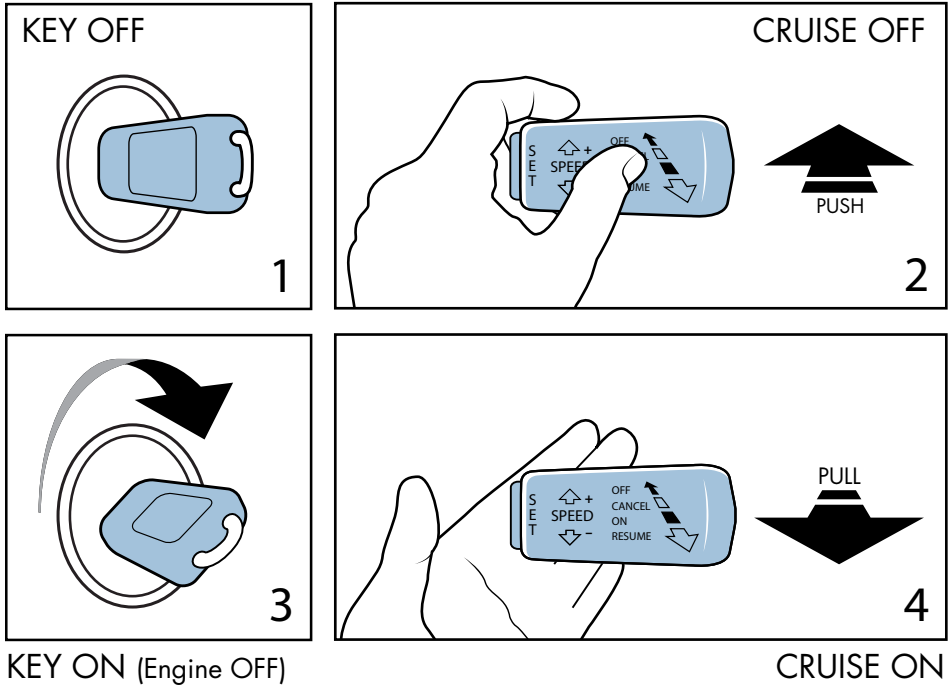
2.5 Anti-Theft:

Anti-Theft is a valuable tool when faced with areas where your automobile may be at risk of theft. Enabling this purchasable option deactivates ignition or throttle response until you enter your unique access code. When security is unlocked, this feature is accessible by entering the following button combination:

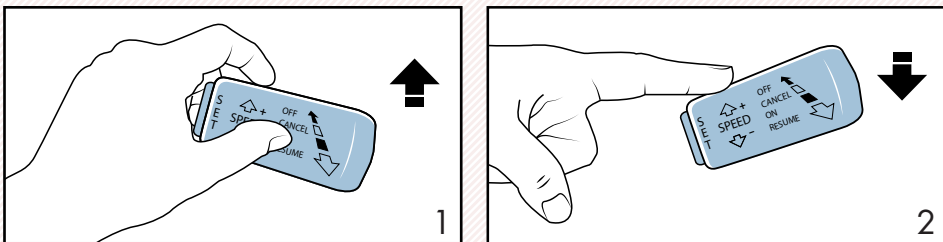
SET – SET – RESUME – RESUME – SET – SET – RESUME – RESUME

Type A

3.1 Enabling EMCS Mode: These four steps must be performed once before successfully entering a security code, switching programs or accessing features.



3.2 Security Code Entry:



Raise the cruise control stalk (SPEED +)
X number of times to ENTER the digit.

Lower the cruise control stalk (SPEED -)
ONCE to REGISTER the digit.
Example entry on the following page.

Example Security Code Entry (code 2, 3, 2, 3):

- 2: SPEED+, SPEED+, SPEED–,
- 3: SPEED+, SPEED+, SPEED+, SPEED–,
- 2: SPEED+, SPEED+, SPEED–,
- 3: SPEED+, SPEED+, SPEED+, SPEED–

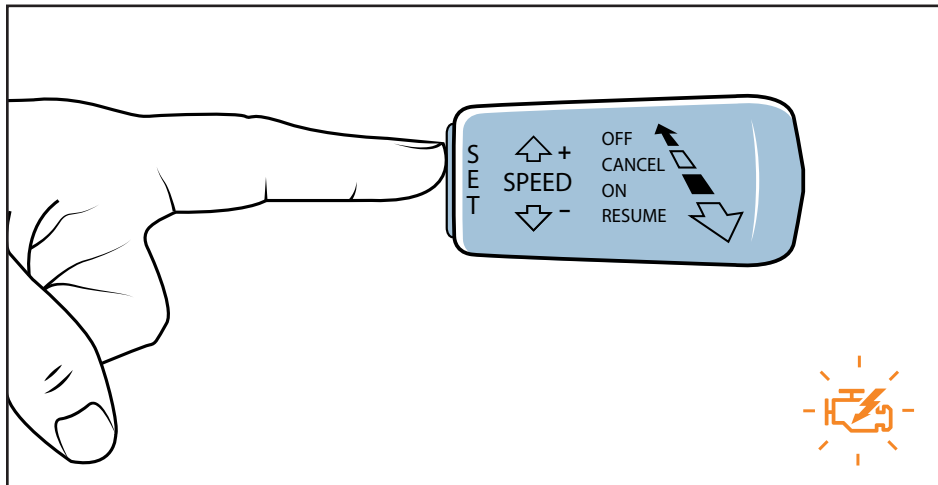
After this sequence is properly executed the CHECK ENGINE LIGHT and the EPC LIGHT will flash alternately.



Note: This process is also used to deactivate Anti Theft and unlock Trial Software.

3.3 Program Switching:

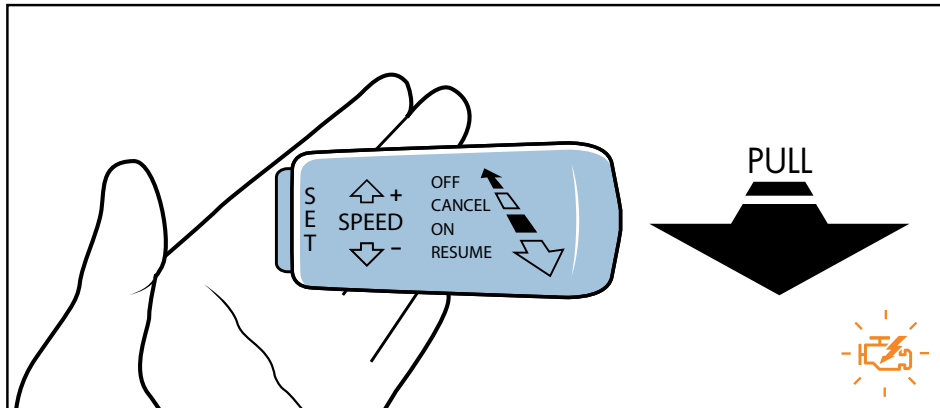
Hold the set button. The check engine light will begin the flashing sequence (SEE 2.2 FOR FLASH PATTERNS). Release the set button for the desired program during the designated flash pattern.



Type A

3.4 Accessing Features:

When multiple features have been purchased, accessing each feature is very simple. Pull the cruise control stalk. The check engine light will begin the flashing sequence (SEE FIGURE 3.4a FOR FLASH PATTERNS). Release the stalk for the desired feature during the designated flash pattern.



3.4a

Fault Code Erase - 1 Blink per Second

(blink, pause, blink, pause, blink, pause, blink, pause)

Throttle Body Alignment - 2 Blinks per Second

(blink blink, pause, blink blink, pause, blink blink, pause, blink blink, pause)

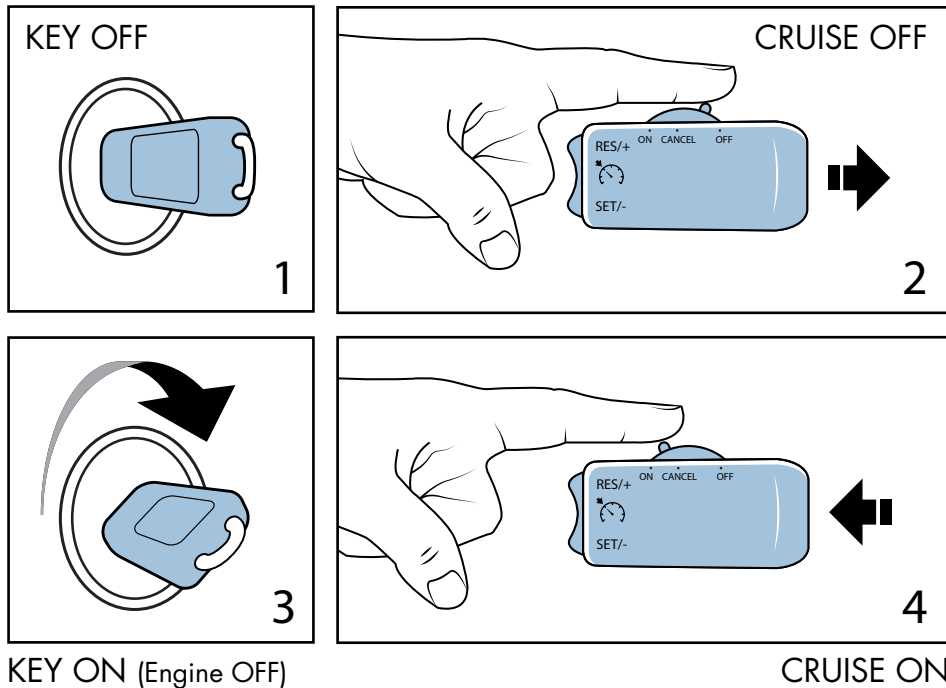
Security Lockout - 3 Blinks per Second

(blink blink blink, pause, blink blink blink, pause, blink blink blink, pause, blink blink blink, pause)

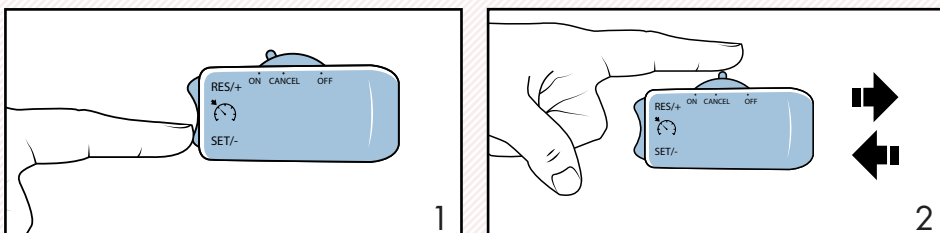
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Type B

4.1 Enabling EMCS Mode: These four steps must be performed once before successfully entering a security code, switching programs or accessing features.



4.2 Security Code Entry:



Press the SET button X number of times to ENTER the digit.

Move cruise control rocker to CANCEL and back to ON to REGISTER the digit. Example entry on the following page.

Example Security Code Entry (code 2, 3, 2, 3):

2: SET, SET, CANCEL > ON,

3: SET, SET, SET, CANCEL > ON,

2: SET, SET, CANCEL > ON,

3: SET, SET, SET, CANCEL > ON

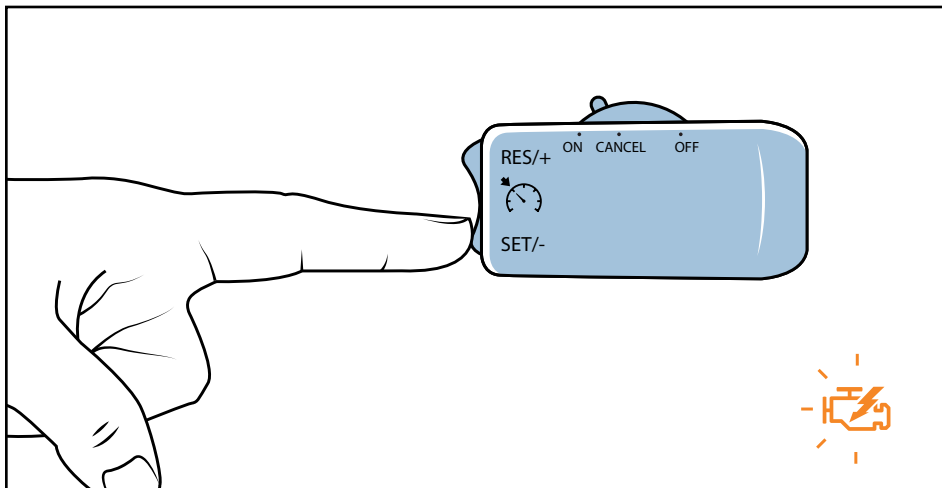
After this sequence is properly executed the CHECK ENGINE LIGHT and the EPC LIGHT will flash alternately.



Note: This process is also used to deactivate Anti Theft and unlock Trial Software.

4.3 Program Switching:

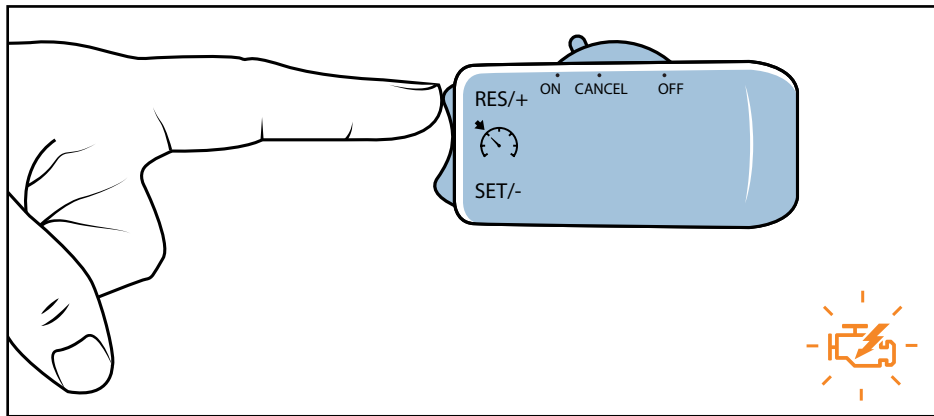
Hold the set button. The check engine light will begin the flashing sequence (SEE 2.2 FOR FLASH PATTERNS). Release the set button for the desired program during the designated flash pattern.



Type B

4.4 Accessing Features:

When multiple features have been purchased, accessing each feature is very simple. Press and hold the RESUME button. The check engine light will begin the flashing sequence (SEE 4.4a FOR FLASH PATTERNS). Release the button for the desired feature during the designated flash pattern.



4.4a

Fault Code Erase - 1 Blink per Second

(blink, pause, blink, pause, blink, pause, blink, pause)

Throttle Body Alignment - 2 Blinks per Second

(blink blink, pause, blink blink, pause, blink blink, pause, blink blink, pause)

Security Lockout - 3 Blinks per Second

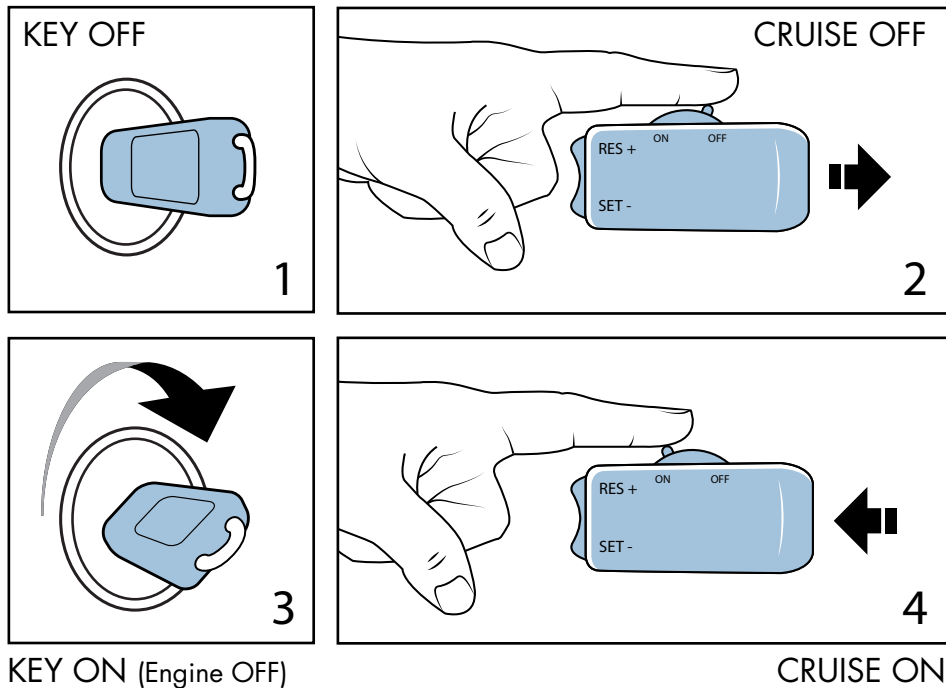
(blink blink blink, pause, blink blink blink, pause, blink blink blink, pause, blink blink blink, pause)

! NOTE:

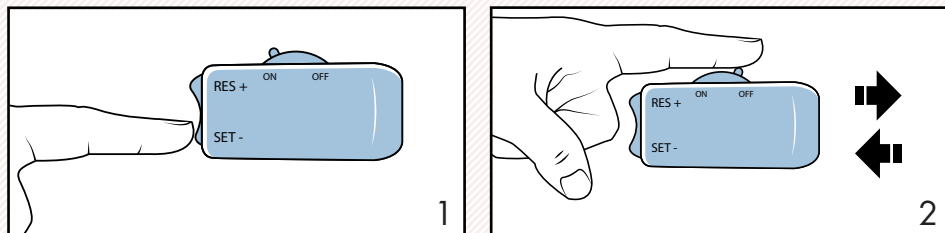
Some ECU's require the user to rock completely to the OFF position. If code entry does not seem to work, Key off, Cruise off, Key on, Cruise on, then re-enter your code substituting the OFF position for the cancel position.

Type C

5.1 Enabling EMCS Mode: These four steps must be performed once before successfully entering a security code, switching programs or accessing features.



5.2 Security Code Entry:



Press the SET button X number of times to ENTER the digit.

Move cruise control rocker to OFF and back to ON to REGISTER the digit.
Example entry on the following page.

Example Security Code Entry (code 2, 3, 2, 3):

2: SET, SET, OFF > ON,

3: SET, SET, SET, OFF > ON,

2: SET, SET, OFF > ON,

3: SET, SET, SET, OFF > ON

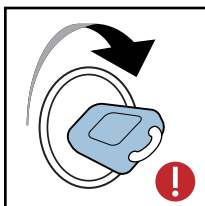
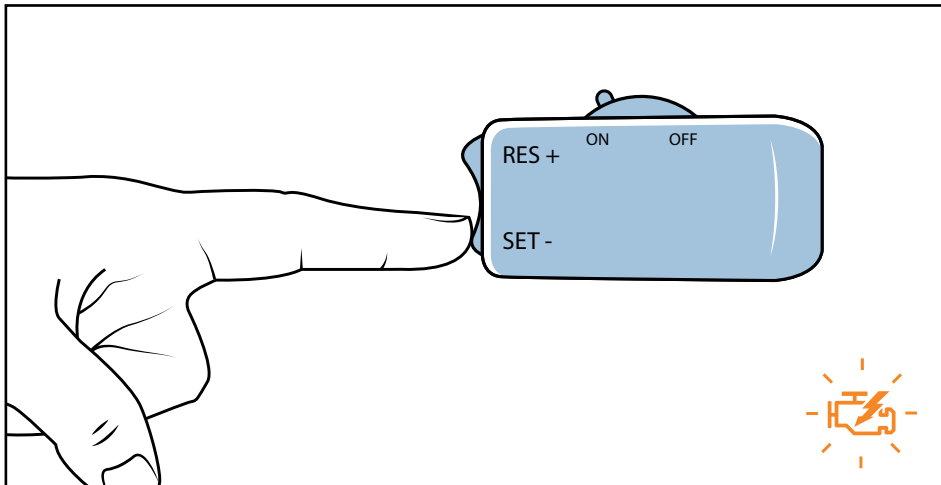
After this sequence is properly executed the CHECK ENGINE LIGHT and the EPC LIGHT will flash alternately.



! This process is also used to deactivate Anti Theft and unlock Trial Software.

5.3 Program Switching:

Hold the set button. The check engine light will begin the flashing sequence (SEE 2.2 FOR FLASH PATTERNS). Release the set button for the desired program during the designated flash pattern.

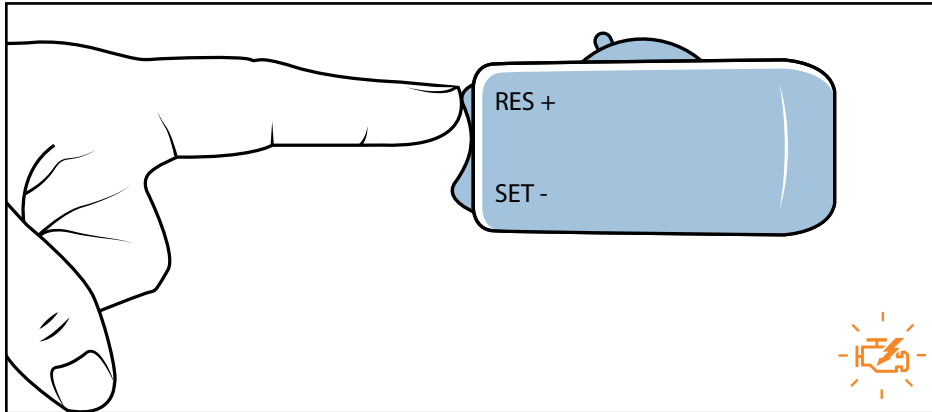


After releasing during the desired blink pattern, turn the KEY OFF FOR 10 SECONDS. Turn the KEY ON and wait for the EPC and CEL to stop flashing (if it does not flash, you've selected the same program you were previously in). Turn the KEY OFF AGAIN and then ON and GO!

Type C

5.4 Accessing Features:

When multiple features have been purchased, accessing each feature is very simple. Press and hold the RESUME button. The check engine light will begin the flashing sequence (SEE 5.4a FOR FLASH PATTERNS). Release the button for the desired feature during the designated flash pattern.



5.4a

Fault Code Erase - 1 Blink per Second

(blink, pause, blink, pause, blink, pause, blink, pause)

Throttle Body Alignment - 2 Blinks per Second

(blink blink, pause, blink blink, pause, blink blink, pause, blink blink, pause)

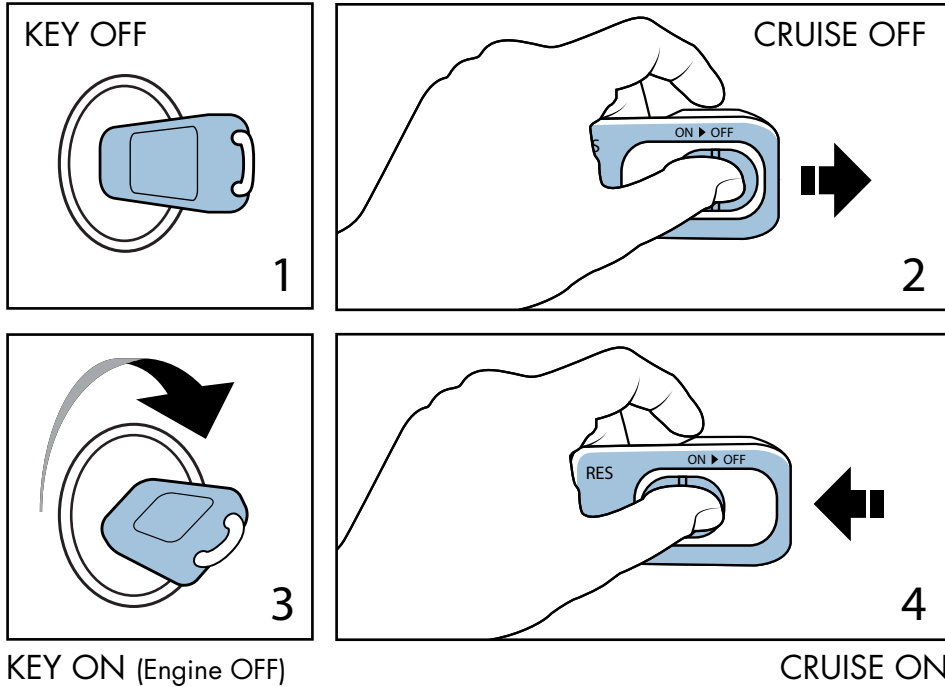
Security Lockout - 3 Blinks per Second

(blink blink blink, pause, blink blink blink, pause, blink blink blink, pause, blink blink blink, pause)

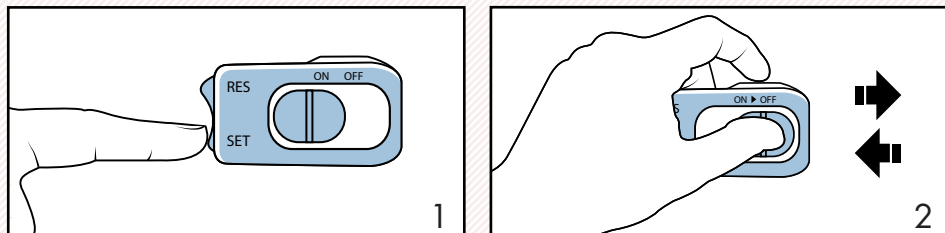
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Type D

6.1 Enabling EMCS Mode: These four steps must be performed once before successfully entering a security code, switching programs or accessing features.



6.2 Security Code Entry:



Press the SET button X number of times to ENTER the digit.

Move cruise control switch to OFF and back to ON to REGISTER the digit.
Example entry on the following page.

Example Security Code Entry (code 2, 3, 2, 3):

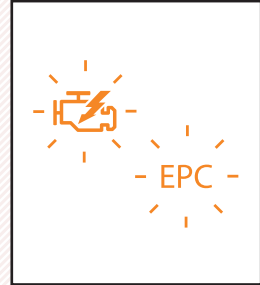
2: SET, SET, OFF > ON,

3: SET, SET, SET, OFF > ON,

2: SET, SET, OFF > ON,

3: SET, SET, SET, OFF > ON

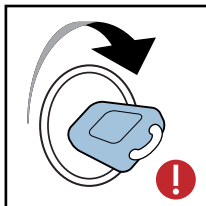
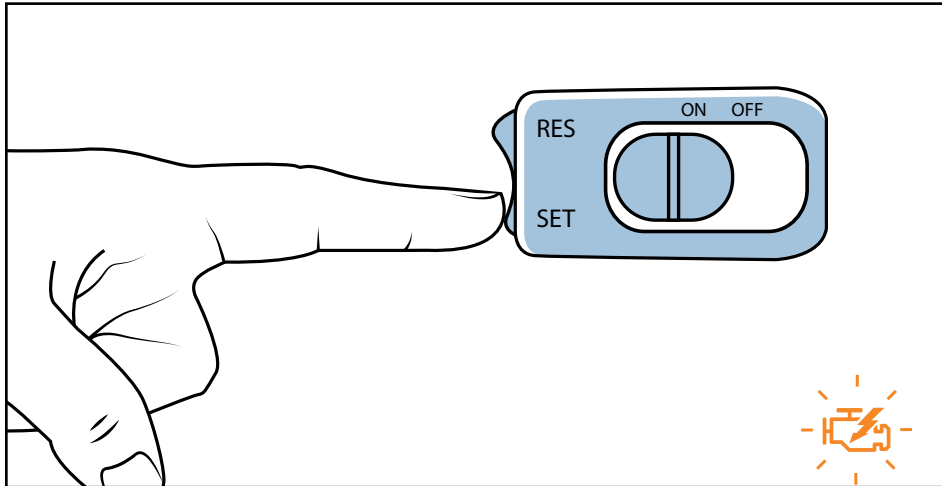
After this sequence is properly executed the CHECK ENGINE LIGHT and the EPC LIGHT will flash alternately.



! This process is also used to deactivate Anti Theft and unlock Trial Software.

6.3 Program Switching:

Hold the set button. The check engine light will begin the flashing sequence (SEE 2.2 FOR FLASH PATTERNS). Release the set button for the desired program during the designated flash pattern.

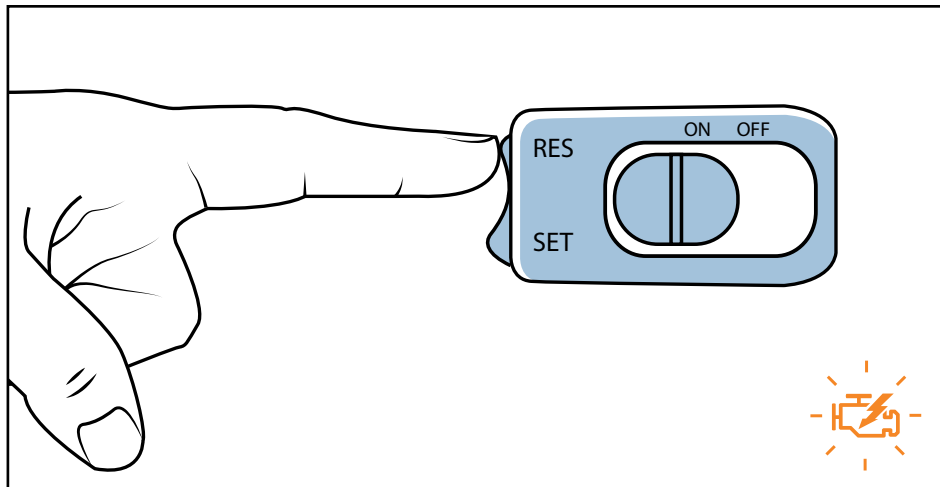


After releasing during the desired blink pattern, turn the KEY OFF FOR 10 SECONDS. Turn the KEY ON and wait for the EPC and CEL to stop flashing (if it does not flash, you've selected the same program you were previously in). Turn the KEY OFF AGAIN and then ON and GO!

Type D

6.4 Accessing Features:

When multiple features have been purchased, accessing each feature is very simple. Press and hold the RESUME button. The check engine light will begin the flashing sequence (SEE 6.4a FOR FLASH PATTERNS). Release the button for the desired feature during the designated flash pattern.



6.4a

Fault Code Erase - 1 Blink per Second

(blink, pause, blink, pause, blink, pause, blink, pause)

Throttle Body Alignment - 2 Blinks per Second

(blink blink, pause, blink blink, pause, blink blink, pause, blink blink, pause)

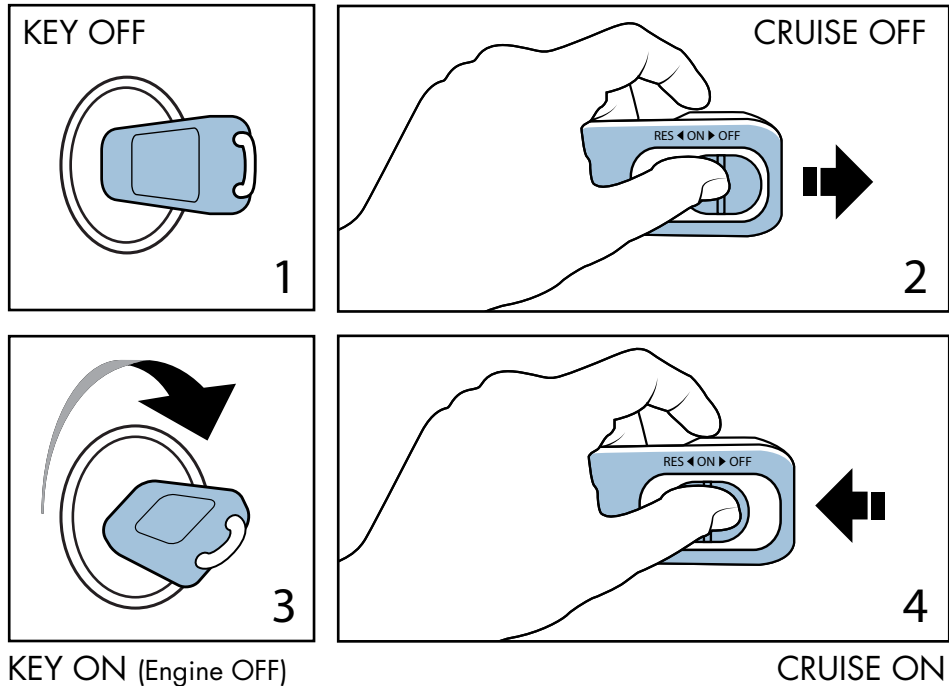
Security Lockout - 3 Blinks per Second

(blink blink blink, pause, blink blink blink, pause, blink blink blink, pause, blink blink blink, pause)

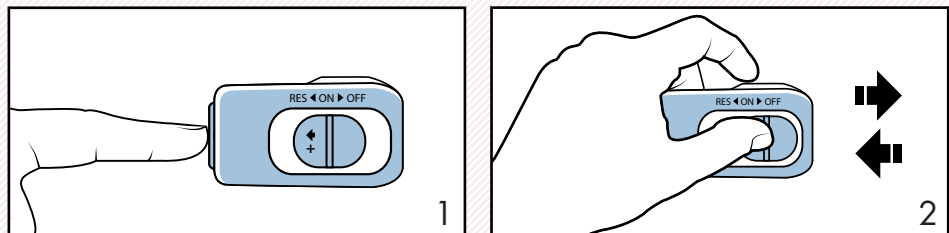
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Type E

7.1 Enabling EMCS Mode: These four steps must be performed once before successfully entering a security code, switching programs or accessing features.



7.2 Security Code Entry:



Press the SET button X number of times to ENTER the digit.

Move cruise control switch to OFF and back to ON to REGISTER the digit.
Example entry on the following page.

Example Security Code Entry (code 2, 3, 2, 3):

2: SET, SET, OFF > ON,

3: SET, SET, SET, OFF > ON,

2: SET, SET, OFF > ON,

3: SET, SET, SET, OFF > ON

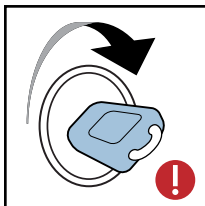
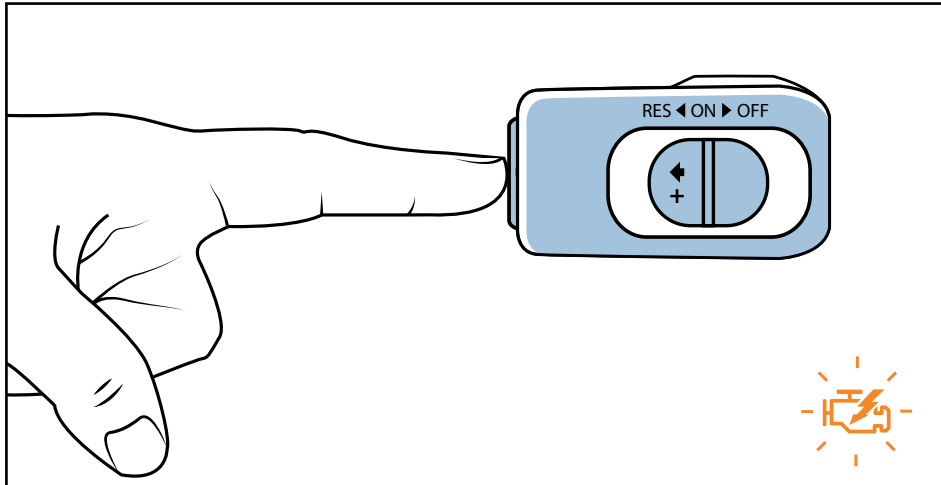
After this sequence is properly executed the CHECK ENGINE LIGHT and the EPC LIGHT will flash alternately.



! This process is also used to deactivate Anti Theft and unlock Trial Software.

7.3 Program Switching:

Hold the set button. The check engine light will begin the flashing sequence (SEE 2.2 FOR FLASH PATTERNS). Release the set button for the desired program during the designated flash pattern.

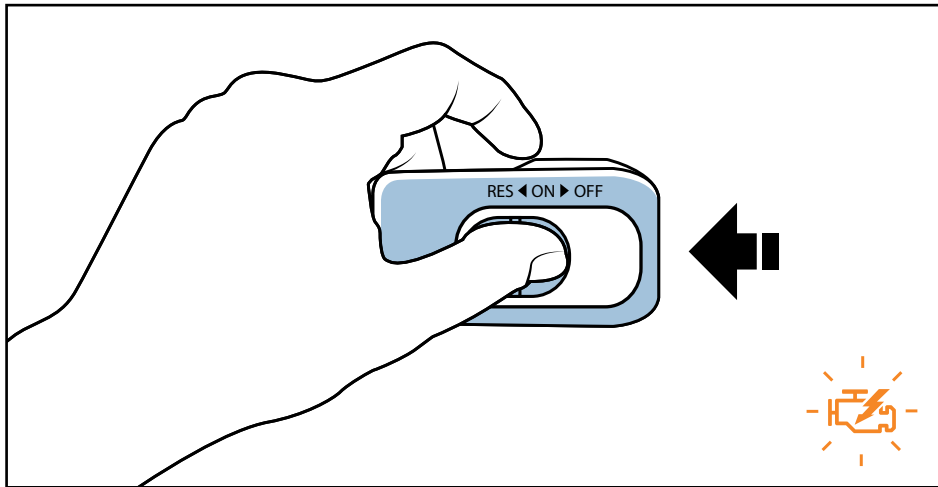


After releasing during the desired blink pattern, turn the KEY OFF FOR 10 SECONDS. Turn the KEY ON and wait for the EPC and CEL to stop flashing (if it does not flash, you've selected the same program you were previously in). Turn the KEY OFF AGAIN and then ON and GO!

Type E

7.4 Accessing Features:

When multiple features have been purchased, accessing each feature is very simple. Pull and hold the RESUME button. The check engine light will begin the flashing sequence (SEE 7.4a FOR FLASH PATTERNS). Release the button for the desired feature during the designated flash pattern.



7.4a

Fault Code Erase - 1 Blink per Second

(blink, pause, blink, pause, blink, pause, blink, pause)

Throttle Body Alignment - 2 Blinks per Second

(blink blink, pause, blink blink, pause, blink blink, pause, blink blink, pause)

Security Lockout - 3 Blinks per Second

(blink blink blink, pause, blink blink blink, pause, blink blink blink, pause, blink blink blink, pause)

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ADDITIONAL NOTES FOR ADVANCED CONFIGURATIONS:

As new vehicles are developed and released, there is the potential for this guide to miss updated OEM configurations. These updates may deal not only with cruise control stalks, but also ignition/key options. Please reference the following instructions for your unpublished setup, or contact APR Tech Support for further assistance. [Email apr@goapr.com](mailto:apr@goapr.com) or call toll-free (800) 680-7921.

Dash Inserted Keys:

Some cars have keys that must be inserted into the dash of the car. On all VW/Audi models the engine must be OFF, but the key must be ON in order to enable EMCS. With your foot OFF the brake/clutch, begin by placing the key into its designated slot on the dash. Press the key one time to illuminate the dashboard. Follow the appropriate cruise control instructions found in previous sections of this manual.

Keyless Ignition:

Some vehicles do not require a key to be inserted anywhere to start the engine. As stated before, to enable EMCS, the engine must be OFF, but the key must be ON. With your foot OFF the brake/clutch, press the ENGINE START button one time to illuminate the dashboard. Follow the appropriate cruise control instructions found in previous sections of this manual.

Steering Wheel Cruise Functions:

Some vehicles have cruise control functions built into the steering wheel that do not resemble Cruise Control Stalk Types A-E. Although there is no separate stalk, the functions are performed the same. For this configuration please follow the instructions for Stalk Type C.

Porsche EMCS:

The Porsche EMCS is different than any listed in this manual. Please contact APR Tech Support to acquire digital instructions.

[Email apr@goapr.com](mailto:apr@goapr.com) or call toll-free (800) 680-7921.

EMCS OWNER INFORMATION

Stalks, Programs & Options

CUSTOMER INFORMATION

Customer Name: _____

Serial Number: _____ Date Installed: _____

ECU Part # ("Box Code"): _____ Factory Revision: _____

APR File Name: _____

PROGRAMS (Programs designed ONLY for use with unleaded gasoline with a minimum octane rating as specified)

SLOT 1: _____

SLOT 2: _____

SLOT 3: _____

SLOT 4: _____

FAULT CODE ERASE / THROTTLE BODY ALIGNMENT

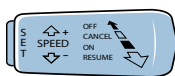
SECURITY CODE: _ _ _ _ _

ANTI THEFT*

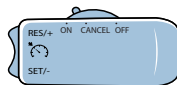
TRIAL SOFTWARE

* Security Lockout is required to operate this feature.

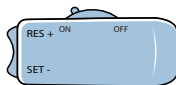
STALK TYPE: (check one)



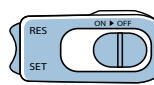
Type A



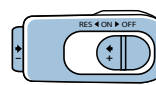
Type B



Type C



Type D



Type E



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