



Vehicle Security System

AK4169 / AK4218

Owner's Manual





Please read this manual thoroughly before using the Vehicle Security System.
Always keep the owner's manual in the vehicle

Dear Customer,

Congratulations on your purchase of this Cobra vehicle security system which has been designed and manufactured to comply with the highest automotive standards utilising the latest technology for total reliability.

Please read this manual to obtain the full benefits of the alarm system.
We recommend that you keep this manual in the vehicle's glove compartment for easy access in the event of an emergency.

Should you have any concerns or require further information regarding this product, please contact your nearest Cobra or Toyota Dealer.

Content:**Page:**

INTRODUCTION.....	3
1. PERSONAL PIN CODE.....	4
2. ARM / DISARM.....	5
3. FEATURES.....	10
4. CAR FINDER.....	14
5. TROUBLESHOOTING.....	15
6. GLOSSARY.....	16
7. TECHNICAL SPECIFICATION.....	17

INTRODUCTION:

There are two variations of vehicle security systems and they operate using one of the following highly secure remote controls:

- Original Toyota key remote (Alarms: AK4218, ACS71-89020, ACS71-89020-CS & ACS71-75030)
- Alarm (Cobra) remote control (Alarms: AK4169, ACS71-89030 & ACS71-89030-CS)

To programme extra remotes for either alarm systems, please contact your nearest Toyota or Cobra dealer.

The protection of your vehicle is assured by interior movement sensors and the alarm system is self-protected against system attack. During an alarm, the alarm siren will sound and the vehicle hazard lights will flash.

Product functions

The alarm system performs the following functions:

- Perimetric protection (doors, boot and bonnet)
- Interior and window breakage protection (by ultrasonic sensors)
- Alarm system tampering protection
- Protection against unauthorised starting of the engine
- Digital high powered siren with battery back-up
- Acoustic and visual alarm signalisation
- Alarm system status and diagnostic indication light (LED)
- Optional protection features can be added (inclination sensor and/or PIR sensor).

Alarm operation

The alarm is activated in the following situations:

- A locked door or boot is opened in any way other than using either the alarm system OE key remote or alarm (Cobra) remote control
- The bonnet is opened while the vehicle is locked
- The intrusion sensor is activated (when the sensor detects something moving inside the vehicle or a window is broken)
- The vehicle battery terminal is disconnected while the alarm system is armed.

Remarks

The intrusion sensor may be activated (triggered) by any of the following:

- Dangling accessories
- Automatic or high pressure car washes
- The impact of hail, lightning strikes or other kinds of impact or continuous vibrations
- Any partially open window, door ajar or sliding roof.

Note:

- *The intrusion sensor can be by-passed (deactivated), see chapter, 2.4. Arming without intrusion sensor*

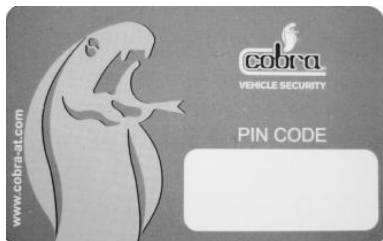
1. Personal PIN code

The alarm system utilises a unique 4 digit personal identification number "PIN" code. The PIN code facilitates the alarm programming, manual arm / disarm and emergency override operation in case the remote control stops working.

The unique PIN code is printed on a PIN code card (credit card size) and has initially been placed in the vehicles document wallet.



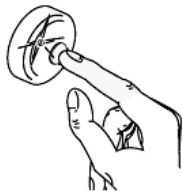
You should keep this card always with you. Do not leave it the vehicle.



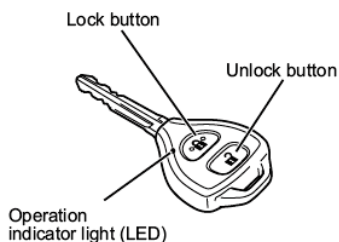
If you have lost or want to change the PIN code, please contact your nearest Cobra or Toyota dealer.

To enter the PIN code

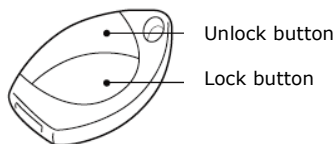
1	Press the button on the LED push button the number of times that corresponds to the first digit of the PIN code (press with a maximum of 1.5 seconds between one press and the next). If the LED is already on when the button is pressed, it will go out.
2	Wait for the LED to flash indicating that the next digit can be entered.
3	Repeat the process for all four digits.



2. Arm / Disarm



(AK4218, ACS71-89020,
ACS71-8920-CS & ACS71-75030)



(AK4169, ACS71-89030, ACS71-89030-CS)

The alarm system will be armed when the vehicle is Locked and disarmed when the vehicle is unlocked using the remote control.

2.1. To ARM the alarm system

Important:

To prevent false alarm, check that there is no one in the vehicle and that all windows and sliding roofs are fully closed before locking the vehicle (see chapter 2.4. Arm without intrusion sensor).

Action	Hazard light indication	Alarm status light (LED)
Remote control: Press the lock button once.	Flashes once	ON for 30 seconds, then starts flashing at a steady rate

Note:

- The vehicle LED blinks to inform you that the immobiliser is set (not linked to the alarm system).
- If any door is not securely closed, 10 short beeps will sound (vehicle may not lock, but alarm system will be armed) and the door switch will be deactivated until the door is properly closed.
- The system will be armed 30 seconds after the lock button is pressed (pre-arm time).
- If the remote key is not working the system can be armed using the PIN code (see chapter 1, PIN code).

2.2. To *DISARM* the alarm system

Action	Hazard light indication	Alarm status light (LED)
Remote control: Press the unlock button once.	Flashes twice	Stops flashing

Note:

- If no door is opened within 30 seconds after disarming, the system will re-arm automatically and the doors will be locked again.
- If the remote key is not working the system can be disarmed using the PIN code (see *chapter 1, PIN code*).

2.3. Stop the siren sounding

Press the OE key remote unlock button once (AK4218, ACS71-89020, ACS71-89020-CS, ACS71-75030), the siren will stop and the system will be disarmed.

Press the alarm (Cobra) remote unlock button twice (AK4169, ACS71-89030, ACS71-89030-CS), the siren will stop (1st press) and the system will be disarmed (after the 2nd press).

Note:

- If after this, no door is opened within 30 seconds, all doors will automatically lock and the system will re-arm.
- If the remote key is not working the system can be disarmed using the PIN code (see *chapter 1, PIN code*).

2.4. Arm without the intrusion sensor

If the vehicle is to be locked with someone inside (passenger, children or a pet), or if you want to leave a window partially open, then the intrusion sensor must be deactivated (by-passed) as follows:

Activation steps		Hazard light indication	Alarm status light (LED)	Buzzer (chirp)
1	Lock the vehicle using the remote control	Flashes once	ON for 30 seconds	1 chirp (if feature is enabled)
2	During the first 30 seconds, press lock button again once	Flashes once	ON for 30 seconds	1 chirp (if feature is enabled)

Summary:

- Press the remote control lock button twice within 30 seconds.

Important:

- The intrusion (ultrasonic) sensor is by-passed for 1 use only. Next time the system is armed the intrusion sensor is automatically activated again.

2.5. Arm without the optional sensor

For example, if the system has an inclination (level) or PIR (canopy protection) sensor and you want to deactivate (by-pass) the sensor while travelling on a boat, train or leave a pet in the vehicle.

If the alarm system is equipped with an optional sensor, it can be by-passed as follows:

Activation steps		Hazard light indication	Alarm status light (LED)	Buzzer (chirp)
1	Lock the vehicle using the remote control	Flashes once	ON for 30 seconds	1 chirp (if feature is enabled)
2	During the first 30 seconds, press lock button again once	Flashes once	ON for 30 seconds	1 chirp (if feature is enabled)
3	During the first 30 seconds, press lock button again once	Flashes once	ON for 30 seconds	1 chirp (if feature is enabled)

Summary:

- Press the remote control lock button three times within 30 seconds.

Important:

- The sensor is by-passed for 1 use only. Next time the system is armed the sensor is automatically activated again.

2.6. Automatic re-arming

If the vehicle is unlocked using the remote control and the boot or doors are not opened within 30 seconds, the alarm system will automatically re-arm when the vehicle automatically relocks.

2.7. Alarm status light (LED)

The status LED is used to provide information to the user during normal operation and as well as a diagnostic tool.

Condition	Alarm status light (LED)
Disarm state	LED Off
Pre-arm state (30 sec arming time)	LED On
Armed state	LED flashes (at a steady rate)
Alarm state	LED flashes (at a steady rate)
Programming mode	LED On when entering the mode (after flashes)
After an alarm	Number of flashes gives feedback from alarm trigger (<i>see chapter 3.6. Alarm memory</i>)

2.8. Battery back-up siren

The alarm system is specified with a rechargeable battery back-up siren. The siren battery is fully recharged after approximately 12 hours of driving.

3. Features

As well as the alarm functions, some extra features are available which can be activated / deactivated. To activate or deactivate any of them please contact your Cobra or Toyota dealer.

3.1. Door ajar warning

This feature is enabled by default. If any door or boot is not fully closed when the remote lock button is pressed, the system will sound (chirp) 10 times. The system will stop sounding when all the doors are closed, or if the remote control unlock button is pressed.

If the bonnet is not fully closed when the remote lock button is pressed, the system will sound (chirp) 3 times.

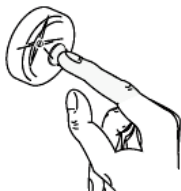
Note:

- The alarm system will arm, even if a door or bonnet is open.

3.2. Alarm override

The alarm override is used if the user loses the remote key or control, or the remote battery is flat.

To enter the PIN code	
1	Press the button on the LED push button the number of times that corresponds to the first digit of the PIN code (press with a maximum of 1.5 seconds between one press and the next). If the LED is already on when the button is pressed, it will go out.
2	Wait for the LED to flash indicating that the next digit can be entered.
3	Repeat the process for all four digits.



3.3. Ignition controlled door lock

This feature is disabled by default. To enable it, please contact your Cobra or Toyota dealer.

When the vehicle ignition is turned ON and all doors are closed, the system will lock the doors.

The alarm system will unlock all the doors when the ignition is turned OFF.

3.4. Passive arming

This feature is disabled by default and can be enabled by your Cobra or Toyota dealer.

Passive arming mode arms the alarm system automatically without the vehicle being locked. It protects the vehicle in case you forget to lock it.

When this option is activated, it will arm the alarm system after the following:

1. The vehicle's ignition has been turned off.
2. A door has been opened and all doors have been closed again.



If any door is opened when the alarm system is in passive arming, the siren will sound unless the unlock button on the remote control is pressed.

Note:

- During passive arming mode, the intrusion (ultrasonic) sensors are activated.
- If the vehicle is locked using the remote control, the alarm system shifts to normal arming mode.

Important:

- The system does *NOT* lock any doors, only arms the alarm system.

3.5. Vehicle finder

This feature is enabled by default and can be disabled by your Cobra or Toyota dealer.

Vehicle finder enables the user to manually flash the hazard lights 4 times to help locate the vehicle when the system is in the fully armed state.

To activate vehicle finder, proceed as follows:

Activation steps		Hazard light indication	Alarm status light (LED)
1	Lock the vehicle using the remote control	Flashes once	ON for 30 seconds
2	After 30 second	-	LED flashes (at a steady rate)
3	Press remote control lock button once	Flashes 4 times	LED flashes (at a steady rate)

3.6. Alarm memory

If the alarm went off during your absence, the hazard lights will flash 5 times when the doors are unlocked and the system will chirp 5 times. The system memorises the last alarm trigger. This can then be identified by counting the number of flashes of the alarm LED before switching the ignition ON.

- 1 flash: Doors
- 2 flashes: Intrusion (ultrasonic) sensor
- 3 flashes: Bonnet
- 4 flashes: Ignition switch (hot wire)
- 5 flashes: Boot / Side doors
- 6 flashes: Alarm system wiring or siren
- 7 flashes: Optional sensor

Note:

- There is a pause of 2 seconds between 2 different alarm memories.

Important:

- If you suspect that the alarm system is sounding due to false alarms, please count the number of LED flashes and contact your Cobra or Toyota dealer.

3.7. Garage mode

If you have to take your vehicle to be serviced and you do not want to provide the remote controlled key, the alarm system can be deactivated for a limited period of time. During garage mode, all the alarm system features are inhibited.

Garage mode has to be manually activated by the following procedure:

1. Disarm the system using the remote control.
 2. Insert the ignition key and turn the ignition ON.
 3. Open the driver's door.
 4. Enter alarm pin code or press for 3 seconds on the remote control lock button.
- The hazard lights and alarm LED will give 1 long flash and a long chirp will sound for confirmation.

After 5 engine starts, garage mode will be cancelled. The hazard lights will flash 5 times.

To manually exit garage mode, proceed as follows:

1. Turn the ignition OFF.
2. A long push on the remote unlock button, or the alarm LED push button.

Note:

- During garage mode, the LED will flash for 10sec every time the ignition is turned ON. The exit from garage will be confirmed by 5 hazard light flashes.

3.8. Arming chirp

This option is disabled by default. To enable it, please contact your Cobra or Toyota dealer. If this feature is enabled, the system will chirp once when armed and twice when disarmed using the remote control.

3.9. Chirp volume adjustment

The volume of the chirp can be adjusted. Please contact your Cobra or Toyota dealer.

4. Remote Control

When the alarm (Cobra) remote control battery is low the remote LED flashes erratically or slowly when any button is pressed.

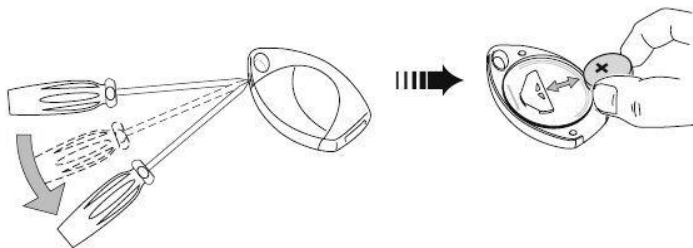
Note:

- If the remote battery is flat the system can be disarmed by entering your pin code using the override LED button (see *chapter 1, PIN code*).

4.1. Battery replacement

To replace the Cobra remote control battery, proceed as follows:

1. Open the remote control at the position marked 'Open' using a small screwdriver.
2. Carefully remove the battery.
3. Wait 10 seconds before installing the new battery.
4. Close up the remote control.
5. Stand next to vehicle and press remote 'Lock' button to synchronize the remote.
6. Check alarm operation - press 'Lock' to arm & 'Unlock' to disarm.



Note: Battery type: CR2032 (3v)



- Only touch the battery side edges
- Battery positive (+) side facing upwards

5. Troubleshooting

Problem	Possible causes	Possible solutions
10 chirps	Door / bonnet are open.	Check that all doors are fully closed.
8 chirps	Wire harness connection problem / siren failure.	Contact your Cobra or Toyota dealer to find the cause.
5 chirps	Alarm went off while system was armed.	Record the number of LED flashes and contact your Cobra or Toyota dealer.
2 chirps	Door was incorrectly closed during last arming (only if arming chirps are disabled).	-
False alarm		
-	Intrusion (ultrasonic) sensors are damaged, detached or incorrectly orientated.	Check and contact your Cobra or Toyota dealer.
-	Passive arming ON.	Read the passive arming chapter.
		Deactivate passive arming.
-	Open window / sliding roof.	Close all windows and sliding roof. If you wish to keep any open, by-pass the intrusion sensor (<i>see chapter 2.4.</i>).
-	Hanging clothes / dangling accessories.	Remove or secure them.
-	People / animals inside.	By-pass the intrusion or option sensors (<i>see chapter 2.4.</i>).
-	Defective door / boot / bonnet switch.	Contact your Cobra or Toyota dealer.

Continued next page

Problem	Possible causes	Possible solutions
LED		
Always ON	System is in programming mode.	Close bonnet to exit programming mode.
Always OFF	System problem.	See No arming.
30 Seconds ON	System is still in pre-arm phase.	Wait 30 sec. to enter arm state.
Blinking fast at IGN ON	Garage mode is activated.	See chapter 3.7. <i>Garage mode.</i>
Blinking slow	Alarm system is armed.	-
No arming		
-	Fuse blown.	Check vehicle Dome 7.5A fuse.
-	Alarm central unit (ACU) is damaged or disconnected.	Contact your Cobra or Toyota dealer.
-	Alarm wire harness is damaged.	Contact your Cobra or Toyota dealer.

6. Glossary

- ARMED:** Operational state in which the product is protecting the vehicle.
- DISARMED:** Product in the operational state that allows the vehicle to be started without setting off the alarm.
- PRE-ARM:** Functional state preceding the arm mode, in which the product does not give any alert.
- TAMPER:** Removal, cutting or disconnection of the power or communication wires.
- CHIRP:** A short audible sound generated by the alarm system's siren.
- PIN CODE:** Personal Identification Number, used to deactivate the alarm system.

7. Technical Specifications

Nominal rated operating voltage:		+12V DC
Operating voltage range:		+9 to +16V DC
Maximum overvoltage:		+24V DC per 1 minute
Maximum reverse voltage:		-18V DC per 1 minute
Current consumption (max values at 23°C):	- Disarm state	<0.5 mA (+12V DC)
	- Arm state	<4.5 mA (+12V DC)
	- Alarm state	<300 mA (+12V DC)
Maximum operating temperature:		+85°C
Minimum operating temperature:		-40°C
IP grade:		IP 40
Alarm's siren sound pressure level:		>111dB in open field (1m)

Note:

- Specifications are subject to change without notice



Part No. OMVSS1
Issued: 29/05/2012