

***STEELMATE***  
*Automotive*

**888X10**  
**888X20**

## 2-Way Car Alarm System



Manual

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## Important notice

- Please install the system by an authorized engineer.
- Keep the product and the transmitters away from water.
- It is highly recommended to read this manual carefully before using this unit.
- This product will help you reduce the possibility of losing the car by discouraging theft. It is not a substitute for owner's vigilance. Please take the valuables with you when leaving the car.
- When the transmitter operating distance is shorter or its indicator light turns dark, please recharge the transmitter battery ASAP. (for transmitter with AAA battery. Please change the battery)

## Key features

- FSK technology, long distance
- Dome light delay
- Anti-hijacking
- Valet mode
- Out of operating range warning
- Comfort closure
- Match central locking system

## Technical specifications

Frequency range: 433.92MHz

### ECU:

Working voltage: 12V $\pm$ 3V

Static current: < 10mA

Siren SPL: 110~125dB

### Transmitter:

Working voltage: 3.7V (**rechargeable**)



Static current: < 35mA

### Transmitter:(with battery)

Working voltage: 1.5V

Static current: < 120mA

## Turn transmitter ON/OFF (only for rechargeable transmitter)

- The transmitter needs to be turned on before the first use, the factory setting is OFF.
- Turn transmitter ON: press and hold  button for about 3 seconds till the transmitter is turned on with melody and vibration, the backlight of the LCD screen will turn on and the icons will light up one by one.
- Turn transmitter OFF: press and hold  button for about 5 seconds till one beep heard.
- The transmitter will be shut down when the battery is used up, if the transmitter cannot be turned on, please charge it.

## Icons on LCD screen



Arming with door locked



Disarming with door unlocked



Arming in mute mode



Arming in mute mode



Battery indicator



Turn signal flashing



Impact on car



Door opened



Trunk-released



ACC ON



Signal bar



Clock alarm

08:00

Clock

1. : Arming/mute arming with door locked
  2. : Disarming with door unlocked
  3. : Arming in alarm mode, arming in mute mode
  4. : Clock alarm
  5. : Battery indicator, 4 statuses:  

Full

Normal

Low

Empty
  6. : Trunk released
  7. : Start icon, in arm mode, when the car was illegal started, this icon will flash.
  8. : Door/hood opened
  9. : Signal bar, signal intensity:
    - : Very low signal but still can communication
    - : Very good signal
    - : Flash slowly, no signal
  10. : Shock impact
  11. : Turn signal flashing
  12. **88:88**: Time indicated
- Some functions are only for some transmitters

## Transmitter setting

Press + button simultaneity. The transmitter beeps once to enter the setting mode, the digital number flashing.

Press button to choose TIME—ALARM—CLOCK—MODE—AUTO-ARM, the corresponding

characters will flash when selected.

Press button to adjust the flashing data. Press button to enter next function select. Press + button for 3 seconds to save and exit the

setting mode. Parameters setting:

**TIME**: set hour and minute of time

**ALARM**: Set clock alarm on / off, set the time (hour/time) of clock alarm.

**MODE**: set mode1: the transmitter only have chirp

mode2: the transmitter only have vibrate

mode3: the transmitter have chirp and vibrate.

**AUTO-ARM**: set the passive arming function activate. ON indicate the passive/ active arming function ON.

OFF indicate the passive/active arming function OFF.

Some functions are only for some transmitter

## Antenna range indication

- Antenna range shows by bar on the LCD screen, the more the bar, the stronger the signal. When the transmitter cannot receive the signal from the system, the signal bar will disappear. The alarm signal will be sent to both transmitters when the alarm system is triggered. When a

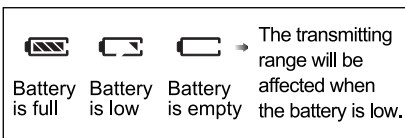
transmitter sends signal to the system, the system will send the feedback signal to the operating transmitter only.

## Special music indicator

- If there is no function and it sends the special music when pressing the button on transmitter, it indicates the transmitter is communicating with the system. Please operate the transmitter later.

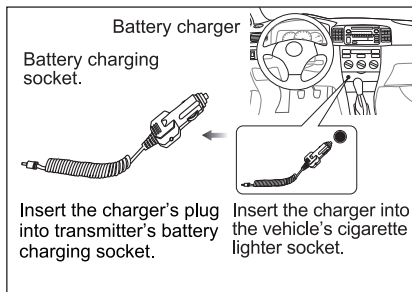
## Low battery

- When a transmitter's battery is low, the transmitter will send out warning sound after the button is pressed, the battery indicator will show the battery status.
- When the battery indicator is empty, the transmitter needs to be charged immediately.

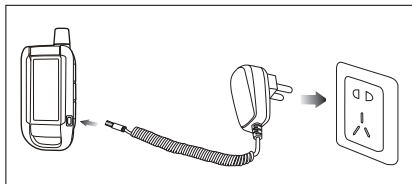


## Transmitter charging

- Charging: Insert the charger's plug into transmitter's battery charging socket, and then insert the charger into the vehicle's cigarette lighter. The transmitter's battery can be charged discontinuously.











- Insert the charger's plug into transmitter's battery charging socket, insert the charger's other terminal into the socket



**Note:** The charger only for some transmitters.

## Quick reference guide





Function button	Press/Press and hold	ACC-OFF	ACC-ON
	• Press	• Arm system/mute arming (press twice)/lock door /pause alarm/select in setting mode	• Lock door/ select in setting mode
	• Press and hold	• Locating	• Valet mode
	• Press	• Disarm system/unlock door/ adjust in setting mode/disarming in alarm	• Unlock door /adjust in setting
	• Press and hold	• Turn on the LCD transmitter (3 seconds)/turn off the LCD transmitter(5 seconds) (Only apply for rechargeable transmitter)	• Turn on the LCD transmitter (3 seconds) /turn off the LCD transmitter(5 seconds) (Only apply for rechargeable transmitter)
	• Press	• Locating	/
	• Press and hold	/	/
	• Press	• Mute arming/ pause alarm	• Pause alarm
	• Press and hold	/	• Anti-hijacking
	• Press	/	/
	• Press and hold	• Setting mode/save and exit	• Setting mode/save and exit
	• Press	• Turn on backlight	• Turn on backlight
	• Press and hold	• Trunk release	/
	• Press	• Turn on backlight	• Turn on backlight
	• Press and hold	• Trunk release	• Trunk release
	• Press	/	/
	• Press and hold	/	• Anti-hijack

※ Some buttons are only for some transmitters.

## Functions

### 1. Alarm arming & locking the doors




When armed, the system will respond if unauthorized entry is attempted. When an unauthorized entry occurs, turn signals will flash and the siren will chirp.


Press  button once to, the doors will be locked with the LED indicator flashing and the turn signals flash once, the siren chirps once then the vehicle is armed in alarm arming mode with shock sensor activated. The transmitter will respond with "bee" once and show  icon and  icon on the screen. The  icon flashes twice with backlight turning on.

### 2. Mute arming & locking the doors




In mute arming mode, the siren will not chirp.

### 3. Disarming & unlocking the doors

In alarm arming mode, press  button once to unlock the doors, turn signals will flash twice and the siren will chirp twice, the system will be disarmed. The transmitter will "Bee-Bee" twice, the  icon on screen will flash and then turn on for about 5 seconds. The  icon will appear on the screen and the backlight will turn on.





In mute arming mode, press  button once to unlock the doors, the siren will not chirp, turn signals will flash twice, the transmitter has the same actions as that in alarm arming mode.

### 4. Alarm pause

In armed status, if the system is triggered and alarm continuously, press  button (if the transmitter has  button or  button, you can also press these






buttons) to stop the alarm and the system will return to its former arming status.



### 5. Locating the vehicle/panic alarm

Press  button once (For the transmitter without  button, press and hold the  button), the siren will chirp for 10 seconds with turn signals flashing. Press any button except  button to stop this function.

If the system is in mute arming mode, the turn signals will flash without siren chirp.

### 6. Trunk release

When the car is parked and armed with engine stopped, you can open the trunk by pressing and holding  button (For the transmitter without  button, press and hold  +  buttons) for about 2 seconds. The transmitter will beep and the  icon on screen will flash twice and then turn on for about 5 seconds. The backlight of LCD screen will turn on (for the car with trunk release motor).



In arming mode, when remote open the trunk in 30 seconds, the system will detect the trunk is open. After 2 minutes, the trunk is still open, the transmitter will "Bee" three times and vibrate three times. The  icon will flash; If the trunk is detected open after 3 minutes, the transmitter will repeat the previous actions and the  icon will be on.



### 7. Impacting shock sensor

The system is 2-stage warning system:

In alarm arming mode, the first shock impact will






trigger the 1-stage warning of the system, the siren will chirp 5 times with turn signals flashing. The transmitter will beep with vibrations, the  icon and the  icon will be flashing on the transmitter's LCD screen, the backlight will turn on. This procedure will repeat once.



A second impact within 15 seconds will trigger the 2-stage warning of the system. The siren will chirp for about 30 seconds with the turn signals flashing, the engine will be immobilized. The transmitter will beep with vibrations, the  icon and the  icon will be flashing on the transmitter's LCD screen. The backlight will turn on. The system will return to its former arming status after alarm.

In mute arming mode, the shock impact will trigger the system, the siren will not chirp, the turn signals will flash, the transmitter has the same actions as that in alarm arming mode.

### **8. Opening door, hood or trunk/pressing footbrake or alarm**

In armed status, to open door, hood or trunk, press footbrake will trigger the system and the siren will chirp for about 30 seconds with the turn signals flashing, the engine will be immobilized about 40 seconds. The  or  icon and the  icon on the transmitter's LCD screen will flash, the backlight will turn on. The transmitter beeps for about 30 seconds with vibrations. The system will return to its former arming status after alarm.

### **9. Ignition alarm**

In armed status, insert the key and turn it to ON position will trigger the system and the siren will chirp for about 30 seconds with the turn signals flashing, the engine will be immobilized. The icon  and the  icon on the transmitter's LCD screen will flash, the backlight will turn on. The transmitter beeps for about 30 seconds with vibrations. The system will return to its former arming status after alarm.

### **10. LED indicator**


LED indicator is very useful. It shows that the vehicle is protected by alarm system.

In armed status: It will flash twice quickly every 2 seconds.

In shock sensor triggered status: It will flash quickly 4 times every 2 seconds until the system is disarmed and the doors are opened.


In opening door/trunk/hood, turning ACC On, or pressing footbrake triggered status: It will flash quickly and continuously until the system is disarmed and the doors are opened.

### **11. Not armed warning and Passive arming**

When the car is parked with the doors closed and the system is not triggered, about 10 seconds later if the system is not armed, the system will chirp with turn signals flash. The transmitter will beep with vibrations, the  icon will flash on the transmitter to remind the owner to arm the system.


If the system is still not armed, about 60 seconds later, the system will arm in mute mode automatically with doors unlocked (Passive arming function). The passive arming function can be turned ON/OFF through the transmitter setting Auto-arm setting. Only for some transmitter. The factory setting is Auto-arm turn off.

### 12. Rearming automatically



When the system is disarmed by pressing  button and the doors are not opened in about 25 seconds (for the vehicle with dome light function, the time will be about 55 seconds), the system will rearm with the doors locked automatically. The transmitter will beep once.

### 13. Central door lock/unlock automatically




About 15 seconds after the engine running, the doors will be locked automatically by pressing footbrake. If the door was opened, the siren will chirp 3 times after pressing footbrake. When the engine stops, the doors will be unlocked automatically.

During driving, press  button to lock the doors, and press  button to unlock the doors.

### 14. Opening door/trunk reminding

When the system is armed and the door or trunk is not closed completely, about 8 seconds later, the siren will chirp and the turn signals flash. The transmitter will beep with vibrations, the  icon or  icon will flash on the LCD screen with backlight

turn on to remind the owner to close the door or trunk.

Later, if the door or trunk is still not closed completely, the siren will chirp with turn signals flashing until the system is disarmed. The engine will be immobilized. The  icon or  icon flash on the transmitter's LCD screen, the backlight will turn on and the transmitter will beep with vibrations. The system will repeat alarm for about 4 minutes if the door or trunk is unclosed. Press  button to disarm and stop the alarm.

### 15. Warning for triggered system

If the system has been triggered in armed status, when the system is disarmed and the door is opened:

- 1). The siren will chirp twice when shock sensor has been triggered.
- 2). The siren will chirp 4 times when door / hood / trunk has been opened, ACC has been turned to ON, or footbrake has been pressed.
- 3). In mute armed mode, the LED indicator will flash continuously to remind the owner to check the vehicle, the siren won't chirp.

### 16. Status preserving

If the power is cut off, the system will return to the former status in 5 seconds when the power is on again.

### 17. Doom light delay

This function is especially designed for the vehicle

with dome light function. The system will enter into the arm mode after the dome light turn off (about 55 seconds).

### 18. Turn signals flashing for roadside stop

When the vehicle is stopped at roadside with the door opened, turn signals will flash to warn the approaching vehicles (Turn signals will flash about 18 times, and stop flash in 18 seconds later).




### 19. Comfort closure (optional)

The window closer function is only for the vehicle with convenient system (turn key to lock position and hold until the roof/windows are closed), such as BORA, PASSAT, GOLF, etc.

Please switch J1 to "ON" position to activate this function. The windows and roofs will be closed when arming the system.


**Note:** For those vehicles without this function, the jump switch J1 which in the PCB of ECU must be at "OFF" position. Otherwise, the central locking system will be damaged (factory setting : J1 switch on "OFF" position).


### 20. Anti-hijack

Press  button ( If the transmitter has  button, press this button) for 2 seconds when the engine is running will trigger the anti-hijack function, turn signals will flash quickly and the siren will chirp sharply. In 20 seconds, the engine will be stopped. Press  button to stop this function.

**Note:** The factory setting is engine stop, it can be changed by changing the jump switch J2 in the PCB of ECU.

### 21. Valet mode

The valet mode temporarily disables the security function, but other convenience functions (door lock/unlock and trunk release) will work normally. Turn ACC on and press footbrake, press and hold  button for more than 3 seconds, the LED indicator will turn, the siren will chirp three times and the turn signals will flash three times to indicate that the system is in valet mode.

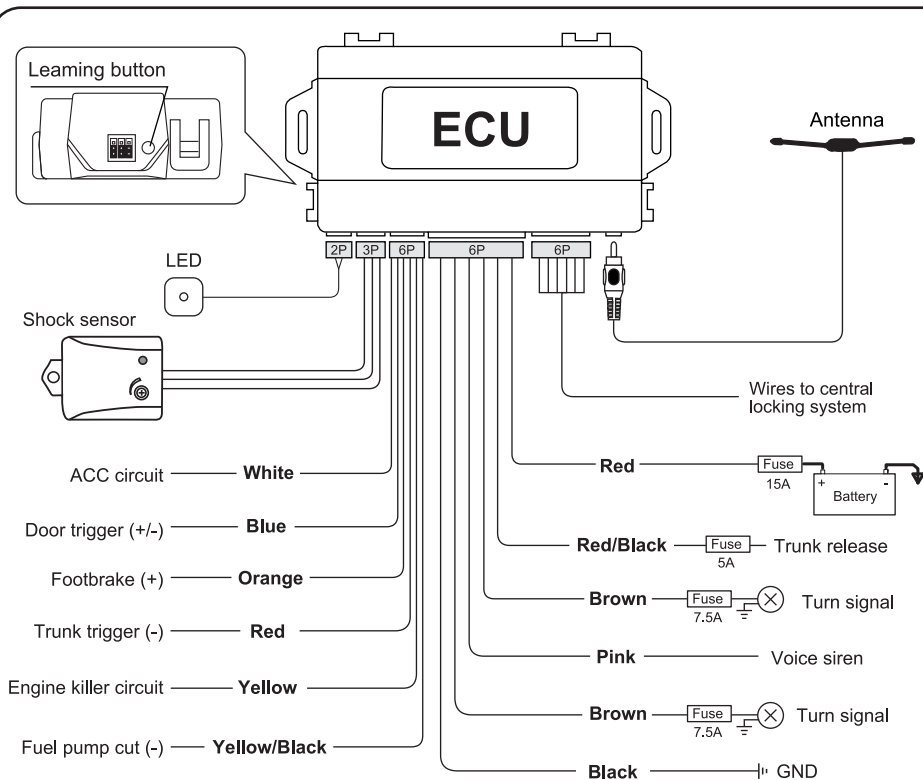
Press and hold  button for more than 3 seconds again, the system will exit the valet mode.

### 22. Programming new transmitter

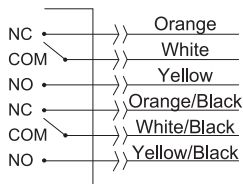
Press and hold the learning button in the ECU, the LED indicator will turn on, press armed button on the 1st transmitter, and the LED indicator and turning lights flash twice. This indicates that the first transmitter is programmed. Press the armed button of another transmitter in 8 seconds, the LED indicator will flash four times with turning signal flash four times. This indicates that the second transmitter is programmed.

**Note:** Only two transmitters are functional for this system.

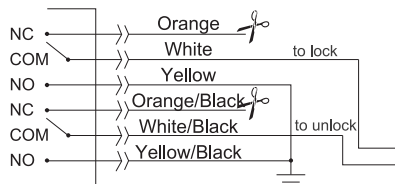
## Wiring diagram



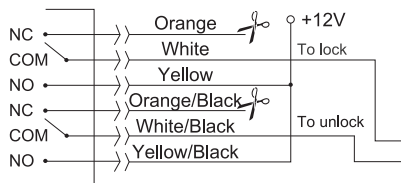
## Central locking system installation



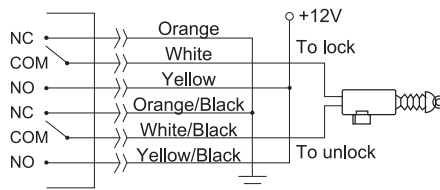
**1. Principle**



**2. Negative trigger**



**3. Positive trigger**



**4. Positive/Negative trigger**

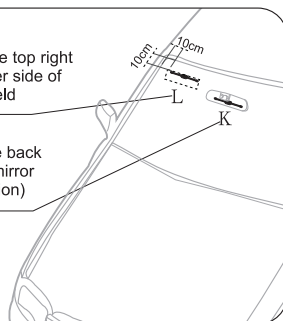
1. When the vehicle is with original central lock system, refer to Fig.2 (Negative trigger), or Fig. 3 (Positive trigger).
2. When the vehicle is with central locking system, the driver's door do not have motor, the other doors have motor. A new motor for driver's door is needed. Refer to Fig. 4.
3. When the vehicle is without central locking system, please install one set central locking system to match with the car alarm system. Refer to Fig. 2.

## Installation of antenna

1. The antenna can be mounted at position K or L , if there's no solar film on the front windshield.
2. If the front windshield is covered with solar film, please remove the solar film within the dotted line before installing it at position L .
3. If all the windshield are covered with film, please mount it at position K .
4. The antenna must be kept away from any metal parts.

To mount it on the top right corner of the inner side of the front windshield

To mount it at the back of the rear view mirror (Suggested location)

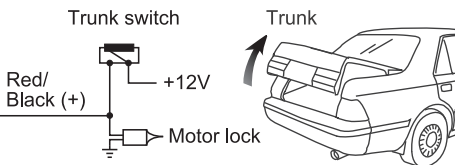


## Jump Switch setting

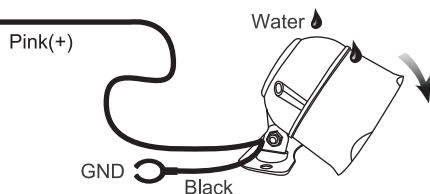
According to different car type, select the jump switch behind the ECU

Select	Jump Switch	
J1	Without Window closer	With Window closer
J2	Engine immobilized	NO engine immobilized
J3	Door trigger (-)	Door trigger (+)

## Trunk release circuit

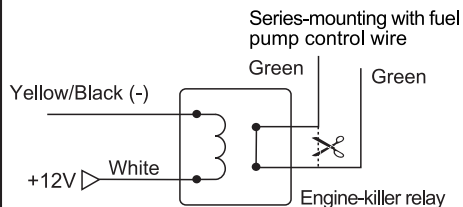


## Siren installation

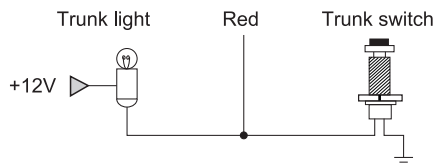


**Important note:** The siren can't be connected to +12V  
Please mount the siren downward to prevent water

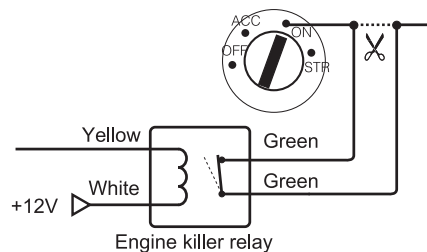
## Fuel pump cut (-)



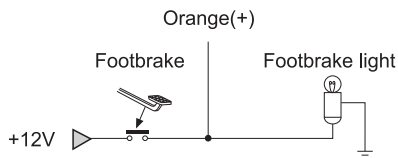
## Trunk release circuit



## Engine killer circuit

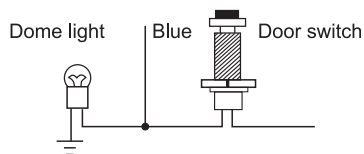


## Footbrake (+)

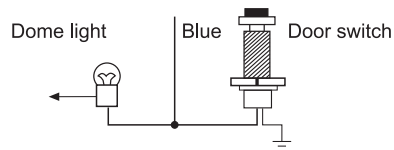


## Door trigger (+)/(-)

### Positive door trigger circuit (+)



### Negative door trigger circuit (-)



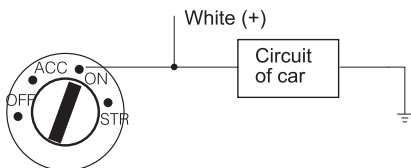
**Notice:** Please choose the correct trigger type according to the vehicle by changing the jump switch J4

## Installation of LED indicator

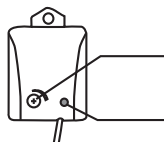


LED light should be installed on the dash board.

## ACC circuit



## Shock sensor installation



To adjust this button clockwise to increase sensitivity.

Red light flashing when impact detected.

(Factory setting sensitivity is suggested)



## Troubleshooting

Problems	Causes
1. The continuous chirping of the siren cannot be stopped by transmitter after the installation of ECU.	<ul style="list-style-type: none"> <li>• The plug is improperly inserted.</li> <li>• The wire is improperly connected.</li> <li>• The transmitter does not match the ECU.</li> <li>• The siren is damaged.</li> <li>• The fuse of the ECU is broken.</li> </ul>
2. Turn signals don't flash after disarming the system and opening the door, or the siren does not chirp when the door is opened without disarming.	<ul style="list-style-type: none"> <li>• Door trigger wire is not connected properly.</li> <li>• Door switch has problem.</li> <li>• The siren is damaged.</li> </ul>
3. When the car parks on roadside and armed, there are false alarms by passing heavy vehicles.	<ul style="list-style-type: none"> <li>• The sensitivity of the sensor is too high.</li> </ul>
4. The central door lock does not work normally or does not work at all.	<ul style="list-style-type: none"> <li>• The motor of central lock is damaged.</li> <li>• The wiring of central lock system is wrong.</li> <li>• Fuse is broken.</li> </ul>
5. The siren does not chirp when the alarm system is triggered.	<ul style="list-style-type: none"> <li>• The siren is damaged.</li> <li>• The wire connection between the siren and ECU has problem.</li> </ul>

Problems	Causes
6. The siren chirps sharply in 10 seconds after arming and the same situation happened after disarming and re-arming it again.	<ul style="list-style-type: none"> <li>• The sensor is damaged.</li> <li>• The doors or trunk is not closed.</li> <li>• The door's pin switch has problem or wiring has problem.</li> </ul>
7. Transmitter is ineffective or the control distance decreased significantly.	<ul style="list-style-type: none"> <li>• The installation location of the antenna is wrong.</li> <li>• The wiring of the antenna to ECU has problem.</li> <li>• Tall building, radio tower or high frequency electromagnetic wave may affect the control range.</li> <li>• Low power of the battery.</li> <li>• The frequency of the transmitter has been changed.</li> <li>• The transmitter is broken or damaged.</li> </ul>

## Installation Manual



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