

# ***STEELMATE®***

***Automotive***

***2.4GHz Touchless  
Smart Engine Lock for Motorcycle***

**SKM21**  
**Manual**



## Disclaimer

This manual contains general instructions for the use, operation and care of this product. The instructions are not all-inclusive.

Safe and proper use of this product is solely at the discretion of the user. Safety information is included as service to the user.

All other safety measures taken by the user should be within and under consideration of applicable regulations. It is recommended that training on the proper use of this product be provided before using this product in an actual situation.

Retain this manual for future reference. Include it with the product in the event of transfer to new users.

## Important Notice

- Please install the battery before use
- Please install the system by professional auto technician
- Please check the motorcycle electrical system thoroughly before commencing installation
- It is highly recommended to read this manual before using this system
- The installation should be as well hidden as possible to maximize the system security
- Solder all connections and then insulate with insulation tape
- Use a multi-meter to verify any wires nature
- Keep the product and the smart key away from water
- Please replace with CR2032 type battery of smart key
- Please remove the batteries if the system is expected to be idle for a long time

## Key Features

- Auto arming after flame out
- Auto touchless disarming
- Warning for triggered system
- Adjustable shock sensor sensitivity
- Light & waterproof smart key
- Waterproof ECU with built-in siren
- Low smart key battery warning

## Specifications

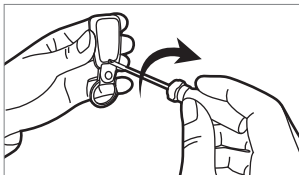
### **ECU:**

Operating Frequency:	2.402GHz~2.480GHz
Operating Voltage:	9~16V
Operating Current:	≤500mA
Static Current:	≤2.5mA
Operating Temperature:	-40°C~+85°C / -40°F~+185°F
Detective Distance:	0 ~ 6m
Siren SPL:	105~125dB

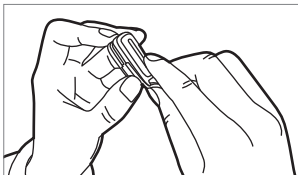
### **Smart Key:**

Operating Voltage:	2.5~3.5V
Operating Current:	≤6mA
Static Current:	≤2uA

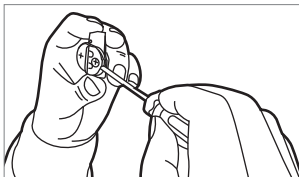
# Smart key battery replacement



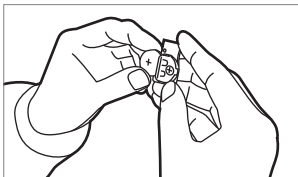
Unscrew the case



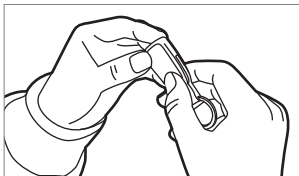
Open the case



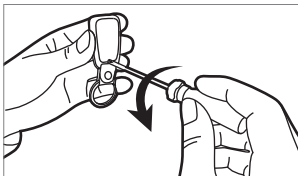
Use insulating tool to remove the battery



Replace with CR2032 type battery



Close the case



Screw the case again

# System Functions

## 1. Arming

After the motorcycle ignition is OFF for 10 seconds without detecting an authorized smart key, the system will arm with Bi sound automatically.

## 2. Shock sensor impacted

When the system is impacted by shock sensor at the first time, the system will chirp for 3 times; If the system is impacted for the second time within 15 seconds, the system will chirp sharply for 15 seconds and engine immobilization;

If the ignition is turned to ON position illegally in arming mode, after 10 seconds the siren will chirp sharply and engine immobilization. The system can be detected by an authorized smart key to disarm only.

*Note:*

*1) Approaching the motorcycle with an authorized smart key to disarm when the shock sensor is impacted and alert, the system is disarmed completely when the ACC is turned to ON position in 10 seconds. If the ACC still stays on OFF position in 10 seconds, the system will re-arm automatically.*

*2) When the shock sensor is impacted and alert, if the ACC is turned to ON position, the alert will stop. If the system detected an authorized smart key within 10 seconds, the siren will Bi twice to indicate system is disarmed. If the system is not disarmed in 10 seconds, the system will alert and engine immobilization.*

### **3. Disarming**

When the ACC is in ON position, the system will Bi twice to indicate that it is disarm by the authorized smart key.

When the ACC is in ON position, if the system is not detected authorized smart key after 10 seconds, the system will chirp sharply and the engine will be immobilized.

### **4. Status preserving**

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

### **5. Low battery alarm**

When ACC is in ON position for 10 seconds, the system will "Di" sounds for 3 times and repeat again after 3 seconds to remind that the smart key battery voltage is lower than 2.4V and it is time to replace the smart key.

### **6. Arming reminder**

When the ACC is in OFF position, the system will Bi sounds for 3 times to remind arming and draw out the key. The system will remind again in 10 seconds.

### **7. Smart key programming**

Please follow the step to finish programming smart key:

- 1.) Make sure ACC is in ON position and disarm the system by smart key.
- 2.) Remove the battery from the smart key and reverse install the battery into the smart key.(Make sure battery discharge completely)

## **7. Smart key programming**

- 3.) Turn the ACC ON to OFF position, after 10 seconds the system will Bi sound once to indicate to enter next step
- 4.) Turn the ACC OFF to ON position for 5 times and stay in ON position, then place the battery within 10 seconds. The system will Bi once after 3 seconds indicate the system enter programming mode.
- 5.) Please place the battery into the smart key within 15 seconds and the system will have a Bi sound to indicate the smart key programmed successfully.
- 6.) During 10 seconds without action, the system will confirm the setting and exit.

Note: Maximun 2 smart keys can be programmed with the same ECU.

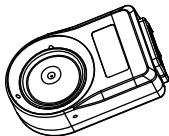
## **8. Sensitivity adjustment**

- 1.) Make sure ACC is in ON position and disarm the system by smart key.
- 2.) Remove the battery from the smart key and reverse install the battery into the smart key.(Make sure battery discharge completely)
- 3.) Turn the ACC ON to OFF position, after 10 seconds the system will Bi sound once to indicate to enter next step
- 4.) Turn the ACC OFF to ON position for 3 times and stay in ON position, then place the battery into smart key within 10 seconds. The system will Bi twice after 3 seocnds and indicate the system enter setting mode.



5.) Switch ACC OFF to ON once to adjust the sensitivity level. Bi once is for level 1, Bi twice is for level 2 and so on.  
Note: Only five levels in this system, level 5 is the highest and level 1 is the lowest (default: level 3)

## Includes



ECU



Harness



Smart key X2



Battery X2



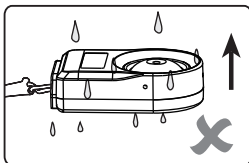
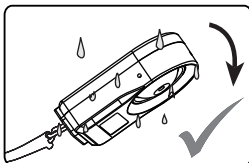
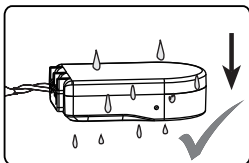
Manual

※ The above graphics are for reference only

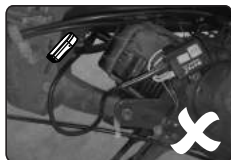
# Installation notice

## ECU

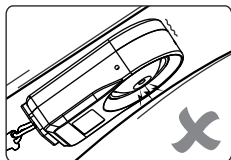
1. Please mount the ECU upside down as shown in the figures 1 or 2 below:



2. Do not mount the ECU close to motorcycle spark plugs & ignition coil system to avoid influence of the alarm performance.

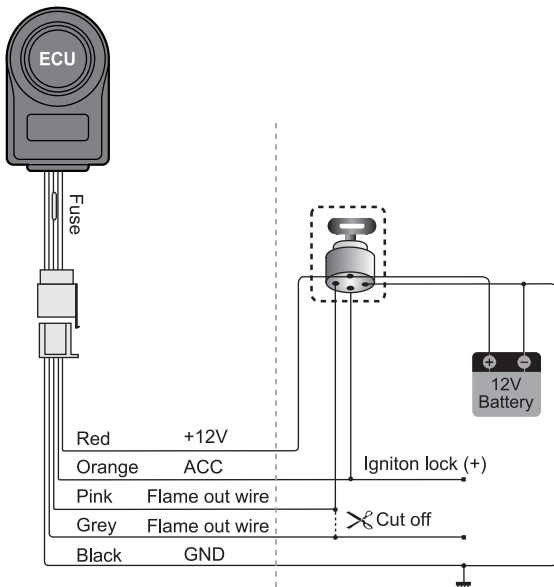


3. Do not mount the ECU in narrow space to avoid influence of siren performance

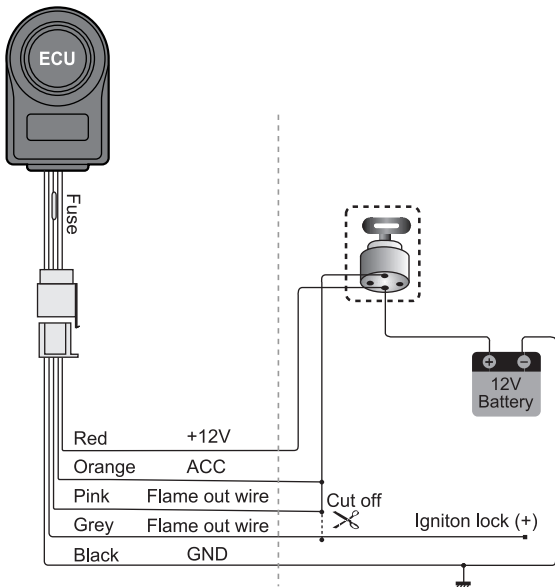


# Wiring diagram

For AC ignition motorcycle



## For DC ignition motorcycle



# Troubleshooting

&

## Check Power    Earth Connection First!

### Circumstances

- System not working at ALL
- Smart Key are not arming/  
disarming the system
- Motorcycle will not start
- Motorcycle engine will not  
run
- Engine immobilization does  
not operate
- Low volume/No sound
- Strange noise from siren

### Possible reasons

- Power supply problem
- Grey wire from the system is  
not connected to ignition wire
- System is armed
- Immobilization wiring is  
incorrect
- Power supply problem
- Smart Key is out of power
- The Grey wire is not  
connected to the correct point
- The system is in disarming  
mode
- Power supply problem or  
alarm main fuse blown

## Solution

- Check +12V & ground (earth) at the system module with a test lamp or multi-meter
- The Grey wire must be connected to motorcycle ignition wire
- Make sure the smart key approaches the motorcycle about 2 meters and disarm the system
- Check the wiring on all points of immobilization i.e. where starter and/or fuel circuits have been cut
- Test for good +12V & earth at the system module
- Replace the Smart Key battery of CR2032
- Check that this wire is wired to the ignition circuit, not to the accessory circuit. And cut the wire between the ignition wire and actuator motor
- Make sure the smart key left around the motorcycle about 2 meters and arm the system
- Test for good +12V & earth at the alarm module. Check main power fuse



**1141 Budapest, Fogarasi út 77.**  
Tel.: \*220-7940, 220-7814, 220-7959,  
220-8881, 364-3428 Fax: 220-7940  
Mobil: 30 531-5454, 30 939-9989

**1095 Budapest, Mester u. 34.**  
Tel.: \*218-5542, 215-9771, 215-7550,  
216-7017, 216-7018 Fax: 218-5542  
Mobil: 30 940-1970, 20 949-2688

**www.delton.hu**

**E-mail: [info@delton.hu](mailto:info@delton.hu) Web: [www.delton.hu](http://www.delton.hu)**