

be automatically turn off & enter into arm status.

While the engine is remote started, if user approach the vehicle within 1-2 meters with the remote control and open vehicle door, or step on foot brake pedal, the vehicle engine will keep running until user shut off it.

Any illegal door opening will trigger the alarm if without induction of the remote control.

If the vehicle is manual transmission, please remember to re-set DIP switch No.1 on the control module with below instructions:

That's:

Step 1: Un-plug the 6p ignition wire harness & 10pin wire harness to cut off power of the device

Step 2: Press up or down the related DIP switch you plan to set on control module

Step 3: Re-plug the 6P ignition wire harness & 10 pin wire harness to re-power the device.

2. For manual transmission vehicle:

User unable to use remote start function if the engine is shut off by pressing the push start stop button. If user want to start the engine with remote control need to follow below procedure:

Park the vehicle, shift the gear selector to Neutral position, pull the hand brake ON, do not turn off the engine in the vehicle with the push button, exit the vehicle, close all the doors well, walk away from the vehicle at least 10 meters, then keep pressing the start button for 3 seconds to turn off the engine. Then next time user can use the remote control to use remote engine start function. (This operation is to avoid accident for manual gear vehicles if the gear selector is not in neutral position when starting the engine with remote control).

Important: Factory default setting of this system is with remote engine start for automatic gear vehicles. If your vehicle is manual gear vehicles and want to use the remote engine start function. Please follow up with above instructions. EASYGUARD electronics CO.,LTD will not bear any responsibility for the loss caused by the running of the vehicle after remote engine start.

10. Remote Engine cut off:

A: When user is out of PKE induction range:

Once the vehicle is remote engine started & user is out of PKE induction range, keep pressing the start button on remote control for 3 seconds, siren chirp once & the engine will shut off. The vehicle will enter into arm status.

B: When user in PKE induction range

Once the vehicle is remote engine started & user is in PKE induction range, need to press unlock button



on key fobs first, then hold the start button for around 3 seconds to shut off the vehicle within 15 seconds.

11. Disable Remote start function

If user want to disable remote start function, can set the DIP switch NO.1 in reverse method.

There are 2 DIP switches on the control module. Below is each switch function:

DIP Switch No. 1: When press up is for automatic transmission setting, when press down is for manual transmission setting

For manual transmission cars, press up the dip switch NO. 1 will disable the remote start function.

For automatic transmission cars, press down the dip switch NO. 1 will disable the remote start function.

Important:

No matter press up or down the DIP switches, user must follow with below instructions:

Step 1: Un-plug the 6pin ignition wire harness & 10pin wire harness to cut off power of the device

Step 2: Press up or down the related DIP switch you plan to set on control module

Step 3: Re-plug the 6Pin ignition wire harness & 10 pin wire harness to re-power the device.

12. Anti-hijacking

when the vehicle is running, user get off the vehicle then close the door well and take the remote control away. The device will try to detect remote control signal after 30 seconds, if it still unable to detect the remote signal in 1 minute, the alarm will warn with siren chirps and turn signal flashes and vehicle engine will cut

off automatically in 40 seconds.

Press any button on remote will pause siren chirp.

If press unlock button , will disarm the device and detect the signal of the key fobs. If unable to detect the signal of the remote control, the device will set into lock status automatically.

13. Alarm trigger by illegal door opening/ foot brake

When the vehicle is in arm status, if the vehicle door is opened illegally or foot brake is step on illegally, it will trigger the alarm and siren will chirp 25 seconds and turn signal light flash at the same time.

14. Central door locking automation

Starting the vehicle, close the door well, step on the foot pedal, the central door will automatically lock the vehicle door after 15 seconds. Once the vehicle is stopped & engine turn off, the central door will automatically unlock.

When vehicle is running and there is passenger get off the vehicle, close the door well, stop on foot pedal to start the vehicle, the central door will automatically lock the vehicle door after 15 seconds.

When the vehicle is running, press unlock button  once will unlock the central door system.

Turn on/off central door locking automation: Start the vehicle, open vehicle doors, quick step on foot brake 5 times in 5 seconds, siren chirps once will turn off the central door locking automation function; when siren chirps twice mean turn on the central door locking automation function.

15. Intelligent power off in arm status

While the system is in armed status, the power of the start system will be cut off and you can't start your vehicle even with the original vehicle key.

16. Door unlock well warning

When user walk away from the vehicle with remote control but not properly close the door well, turn signal will flash 3 times and siren chirps 3 times to remind user to close the door well. If door still not well closed, siren will chirp 25 seconds and turn signal light will flash 25 seconds to reminder user after 30 seconds.

17. Emergency override

If the remote control was lost, user need to do an emergency override in order to use the vehicle. Step is as below:

Using mechanical key to unlock the vehicle door (may trigger the alarm), then open vehicle door, keep stepping on foot brake pedal, hold pressing the programming button on control module for 5 seconds will emergency override the alarm, siren chirps 3 times and turn signal light flash 3 times to confirm. the vehicle is disarmed now.

User need to turn on ACC ,ON or start the vehicle in 2 minutes after emergency override, or the device will set into arm status again.

If push start button is failed or defective, user can step on foot brake pedal and continue to press the programming button 5 times to start/shut off the vehicle.

Important: once the vehicle is emergency override, all the alarm function will lose at the same time.

18. Power saving & vehicle battery low power protection

Once the remote control not been used for more than 36 hours or the vehicle battery is lower than 11.8V, the system will enter into sleep mode automatically and turn off PKE function to save power.

19. Vibration alarm warning(optional)

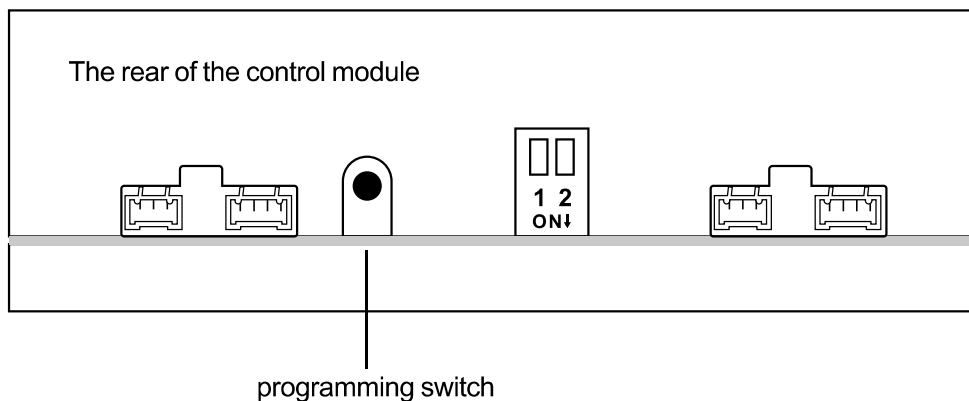
After the alarm is in arm status for 30 seconds, any hit or force on the vehicle will trigger the alarm and siren chirps 5 times, turn signal light flashes 5 times at the same time. If the device is triggered again in 30 seconds, siren chirps 25 times and turn signal light flashes 25 times at the same time.

Only the version with shock sensor has this feature.

The alarm is default without vibration sensor and has no vibration alarm function. If user want to equip with vibration sensor, please contact us.

20. Programming method

The remote control in the kit is programmed already before out of the factory, if user want to add new remote or change the control module, need to do a new programming. Instruction is as below:



1. In disarm status, keep pressing the programming switch on control module (refer to drawing of programming switch) till turn signal light keep lighting on, this means the alarm is entering into programming status. Release the programming switch now.
2. Take the 1st remote control close to the control module & keep pressing lock button  on the first remote control till siren chirps once, this means the first remote control is finished programming.
3. Take the 2nd remote control close to the control module & keep pressing lock button  on the 2nd remote control till siren chirps twice, this means the 2nd remote control is finished programming.
Repeat same programming method to program the rest remotes, the alarm can program 4 remote controls maximum.

Important:

Once the alarm entered programming status, user need to finish the programming in 10 seconds, or the device will exit the programming procedure.

21. Parameter prolong setting

1. Enter parameter setting status:
In disarm status, not start the vehicle, close all vehicle doors well, step on foot brake pedal, quick press lock button  on remote control 5 times, siren chirps 5 times at the same time, then continue to chirp another 5 times, this means the system is enter into parameter setting status. Release the foot brake pedal.
2. Lock signal prolong setting
Press lock button  once, siren chirps once, means lock signal prolonged to 1 second.
Press lock button  twice, siren chirps twice, means lock signal prolonged to 2 seconds.
Press lock button  3 times, siren chirps 3 times, means lock signal prolonged to 3 seconds.
The rest can be done in the same manner
The device maximum support press lock button  8 times and siren chirps 8 times, means lock

signal prolong 8 seconds.

If press lock button  more than 8 times, siren not chirp, user need to follow with point 5 to exit the parameter setting procedure.

3. Unlock signal prolong setting

Press unlock button  once, siren chirps once, means unlock signal prolonged to 1 second.

Press unlock button  twice, siren chirps twice, means unlock signal prolonged to 2 seconds.

Press unlock button  3 times, siren chirps 3 times, means unlock signal prolonged to 3 seconds.

The rest can be done in the same manner

The device maximum support press unlock button  8 times and siren chirps 8 times, means unlock signal prolonged to 8 seconds.

If press unlock button  more than 8 times, siren not chirp, user need to follow with point 5 to exit the parameter setting procedure.

4. Starting time (Cranking time) prolong setting

Press start button  on the remote control once, siren chirps once, means starting time is prolong 0.1 seconds and become 0.9 seconds (default starting time is 0.8 second)

Press start button  on the remote control twice, siren chirps twice, means starting time is prolong 0.2 seconds and become 1.0 seconds

Press start button  on the remote control 3 times, siren chirps 3 times, means starting time is prolong 0.3 seconds and become 1.1 seconds

The rest can be done in the same manner

The device maximum support press start button  8 times and siren chirps 8 times, means starting time is prolong 0.8 seconds and become 1.6 seconds.

5. Exit the parameter setting

Close the door well, step on foot brake, quick press lock button  5 times, at the same time, the horn chirps 5 times, then horn continue to chirp another 5 times, this means the system exit the parameter setting procedure.

6. Back to default factory setting

In disarm status, close all doors well, step on foot pedal and quick press lock button  10 times, siren chirps 10 times at the same time, then continue to chirp another 10 times, all the prolong setting will be back to factory default setting.

Important: When you need to prolong any data setting, you need to enter the parameter setting first, after you finish setting, please remember to exit the setting.

Central door locking installation

The alarm default setting is type B negative (-) for locking and unlocking, if your car is with type B negative central door locking, you can connect the white locking wire and white - black unlocking wire from EC003N with your car locking and unlocking wire directly, or follow with the Type B negative trigger as below diagram shows to connect with the car central door locking system.

There are 8 different types of door lock systems (Type A - H). Please search the vehicle specific wiring instructions online and the chart below to help determine which door lock system your vehicle uses. Most

vehicle factory door lock wires is smaller gauge and located in the driver's kick panel or under the driver's dash.

Note: The most common type of door lock systems are Type A positive trigger, Type B negative trigger and Type C reverse Polarity.

Type A: Positive trigger with three-wire (+) pulse controlling factory lock relays.

Type B: Negative trigger with three-wire (-) pulse controlling factory lock relays.

Type C: Reverse polarity, positive triggered

Type D: Adding one or more aftermarket actuators. These include central locking systems without an actuator in the driver's door, but with factory actuators in all the other doors. Type D also includes vehicles without power locks, which will have actuators added.

Type E: Electrically-activated vacuum systems. The vehicle must have a vacuum actuator in each door.

Making sure that locking the doors from the driver's or passenger side using the key activates all the actuators in the vehicle. This requires a slight modification to the door lock wire harness.

Type F: One-wire system: cut to lock, ground to unlock.

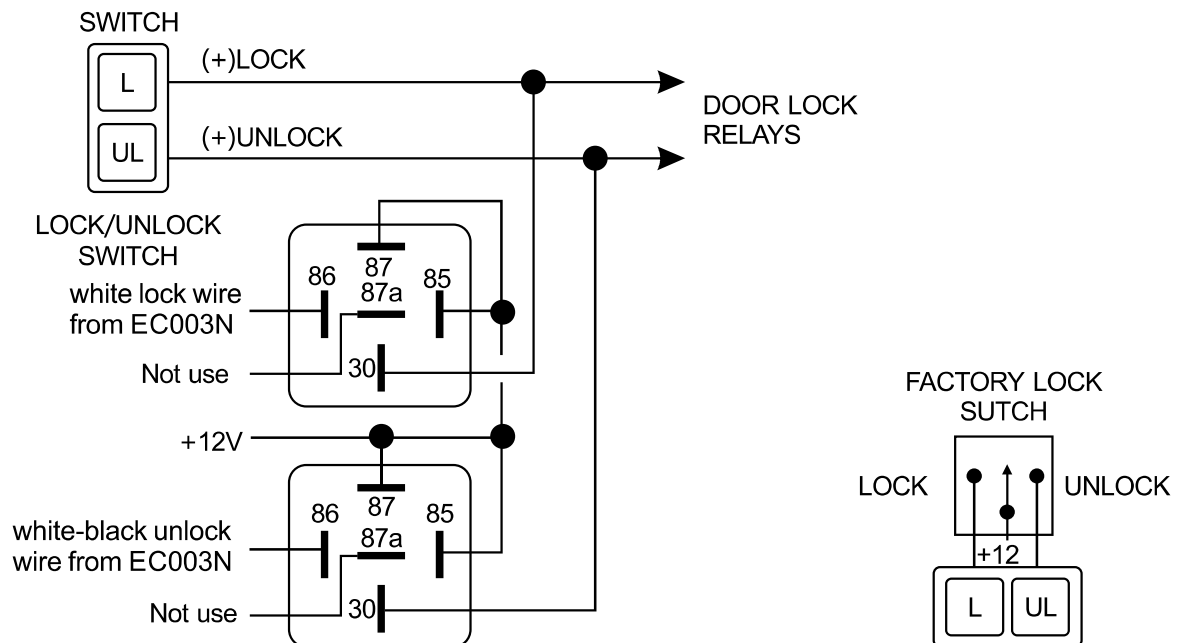
Type G: Positive (+) multiplex. One wire control lock and unlock using resistor(s).

Type H: Negative (-) multiplex. Same as Type G system, but uses (-) pulse instead.

TYPE A POSITIVE TRIGGER

Type A: positive trigger with three-wire (+) pulse controlling factory lock relays.

There are 3 wires (+) pulse controlling factory locking relays, one pulses 12v for lock, one pulse 12V for unlock, the last one is for constant 12V. Extra 2 SPDT relay are required.

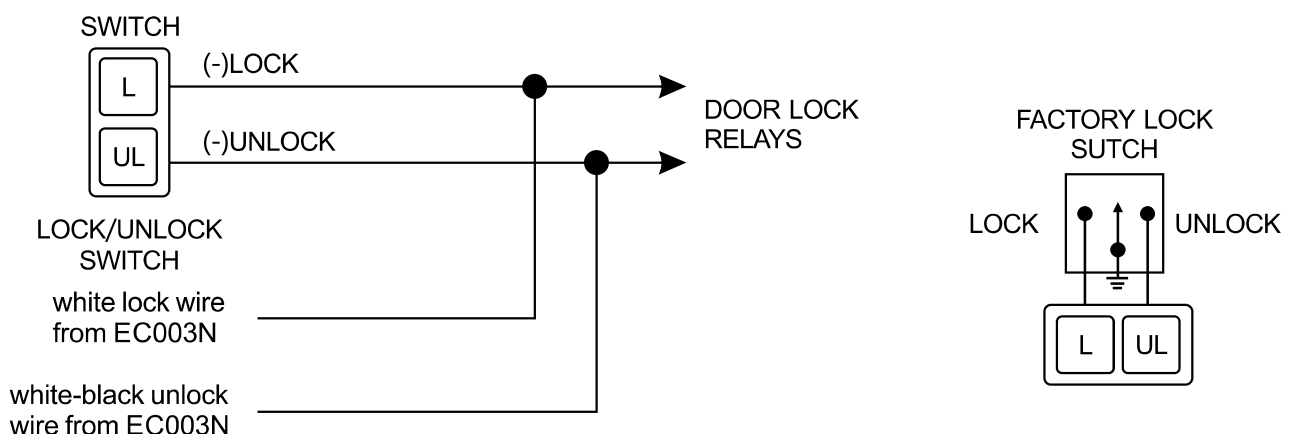


TYPE B NEGATIVE TRIGGER

Type B: Negative trigger with three-wire (-) pulse controlling factory lock relays.

Two wires resting open circuit, one pulses ground for lock and the other pulse for unlock.

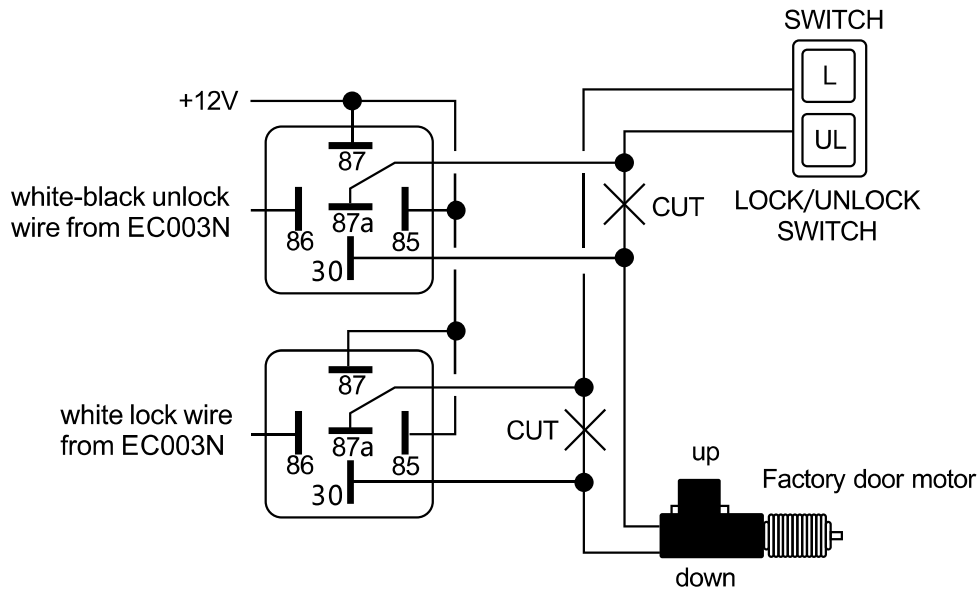
For this kind of trigger, the vehicle switch will have three wires on it, one wire will test ground all the time. One wire will pulse (-) when the switch locks the doors, and the other wire will pulse (-) when the switch unlocks the doors. This type of system is difficult to mistake for any other type.



Type C Reverse polarity, positive triggered

Motor interrupt central locking:

Two wires resting at ground, one pulse 12V for lock, the other pluses 12V for unlock Direct-wired reversing-polarity switches. The switches are wired directly to the motors. This type of system has no factory relays. Extra 2 SPDT relay are required.

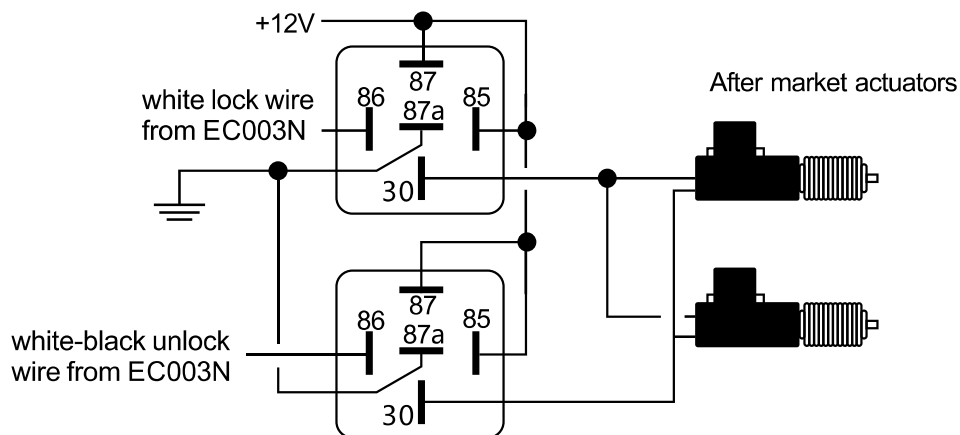


Type D: Adding one or more aftermarket actuators

For this type of vehicle, there isn't a motor in the driver's door (central locking only operates from the driver's door). An extra door actuator is required.

These include central locking systems without an actuator in the driver's door, but with factory actuators in all the other doors. Type D also includes vehicles without power locks, which will have actuators added.

Vehicles without factory power door locks require the installation of one actuator on each door. This requires mounting the door lock actuator inside the door. Other vehicles may only require one actuator installed in the driver's door if all door locks are operated when the driver's lock is used.



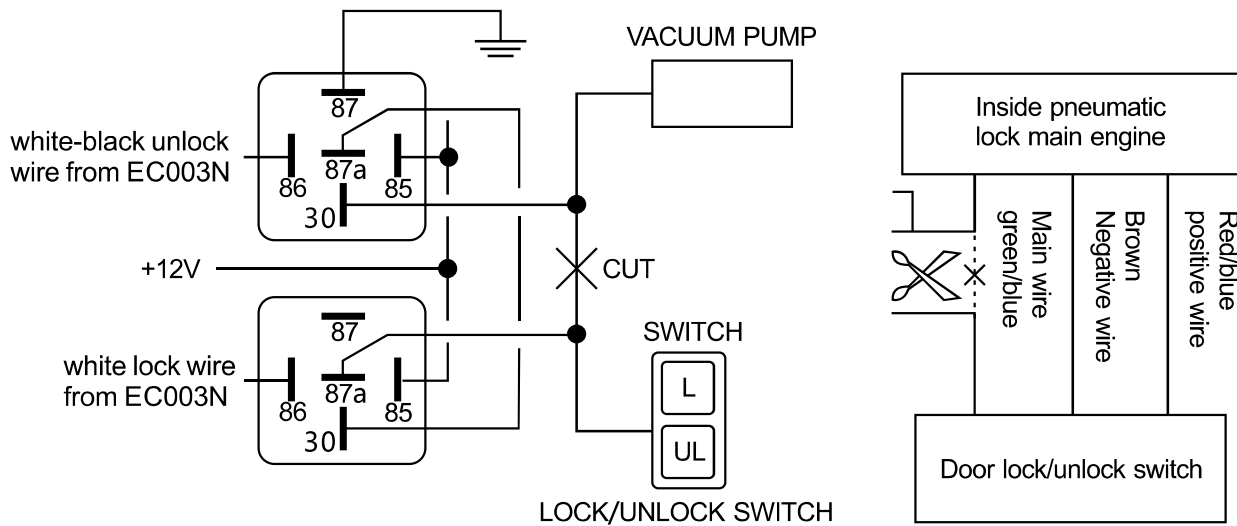
Type E: Electrically-activated vacuum systems.

Polarity reverses on a single wire to lock and unlock. Please set the door lock time to 3.5 seconds by a timer delay switch (not included).

The vehicle must have a vacuum actuator in each door. Making sure that locking the doors from the driver's or passenger side using the key activates all the actuators in the vehicle. This requires a slight modification to the door lock wire harness.

The door locks are controlled by an electrically activated vacuum pump. The control wire will show +12v when doors are unlock and (-) ground when locked.

NOTE: For this kind of central door locking, must program the lock pulse time to be 3.5 seconds.

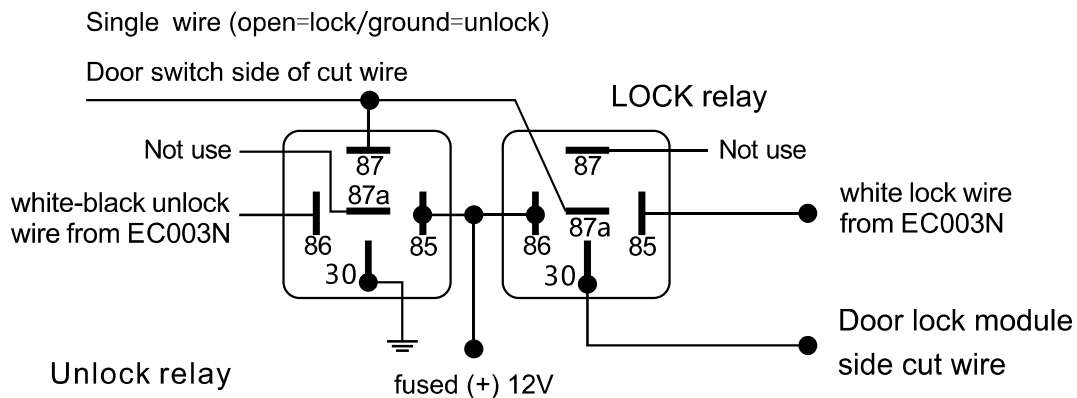


Type F: One-wire system: cut to lock, ground to unlock.

This type of central door locking system mainly for Japanese driven Single wire in series negative trigger.

Single wire that pulses negative to unlock, and open circuit to lock.

This type of door lock system usually requires a negative pulse to unlock, and cutting the wires to lock the door. (for some vehicles, these are reversed). 2 extra SPDT relays are used to interface to this type of system.



Type G: Positive (+) multiplex. One wire control lock and unlock using resistor(s).

Single wire positive central locking

Single wire, positive lock, positive unlock.

Two potential (resistor may require) positive rigger.

Single-resistor style: if one resistor is used in the door lock switch/key cylinder, the wire will pulse (+) 12V in one direction and less than + 12V when operated in the opposite direction.

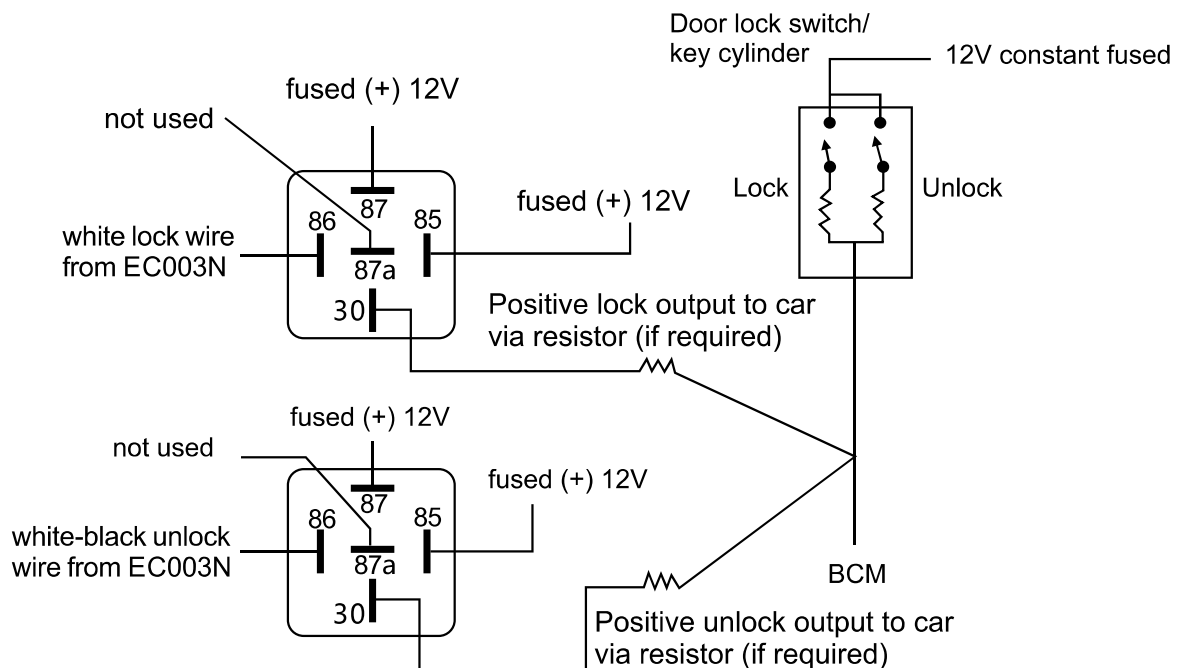
Two resistor type: if two resistors are used in the factory door lock switch/key cylinder, the switch/key cylinder will read less than + 12V in both directions.

Determining the proper resistor values: to determine the resistor values, the door lock switch/key cylinder must be isolated from the factory door lock system. For testing, use a calibrated digital multi-meter that is set to ohms,

IMPORTANT: to ensure an accurate resistance reading, do not touch the resistor or leads during testing.

1. Cut the output wire from the door lock switch/key cylinder in half;
2. Test with the meter from the switch side of the cut door lock switch/key cylinder wire to a reliable constant +12V source. Some good constant + 12V references are the power input source to the door lock switch/key cylinder, the ignition switch power wire, or the (+) terminal of the battery.
3. Operate the door lock switch/key cylinder in both directions to determine the resistor values. If the multi-meter displays zero resistance in one direction, no resistor is need for that direction.
4. Once the resistor value(s) is determined, refer to the wiring diagram for proper wiring.

LOCK relay



UNLOCK relay

Type H: Negative (-) multiplex. Same as Type G system, but uses (-) pulse instead.

Single wire negative central locking

Single wire, negative lock, negative unlock.

Two potential (resistor may require) negative trigger.

Single-resistor style: if one resistor is used in the door lock switch/key cylinder, the wire will pulse ground in one direction and resistance to ground when operated in the opposite direction.

Two resistor type: if two resistors are used in the factory door lock switch/key cylinder, the switch/key cylinder will read resistance to ground in both directions.

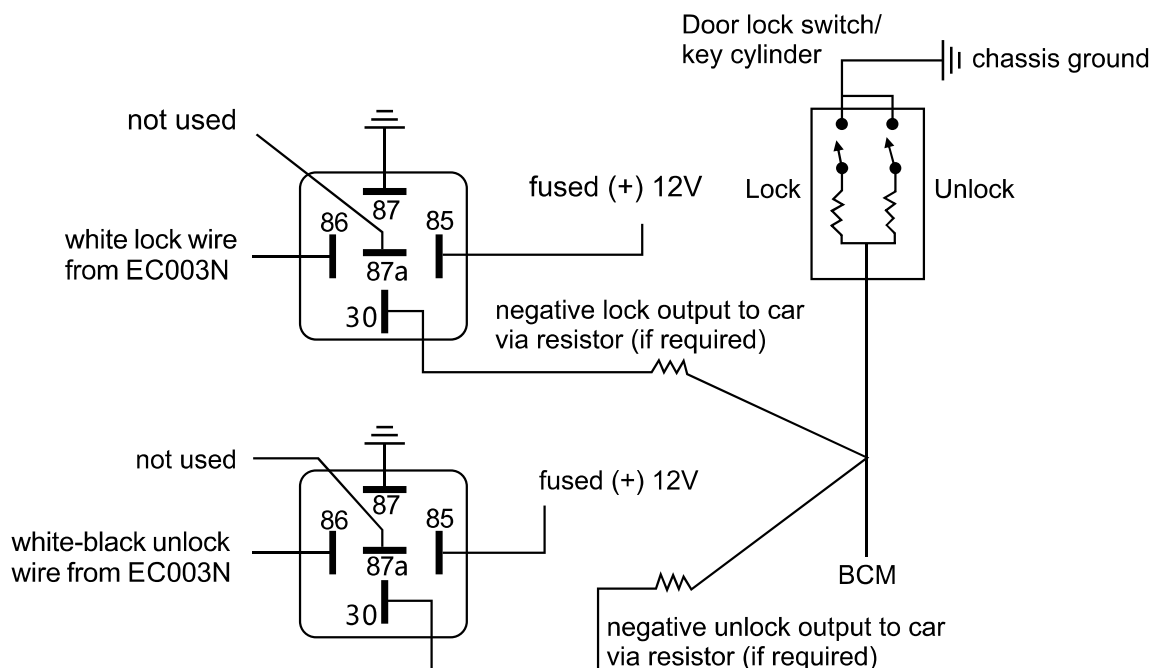
Determining the proper resistor values: to determine the resistor values, the door lock switch/key cylinder must be isolated from the factory door lock system. For testing, use a calibrated digital multi-meter that is set to ohms.

IMPORTANT:

To ensure an accurate resistance reading, do not touch the resistor or leads during testing.

1. Cut the output wire from the door lock switch/key cylinder in half,
2. Test with the meter from the switch side of the cut door lock switch/key cylinder wire to a reliable ground source. Some good ground references are the ground input source to the door lock switch/key cylinder, or the battery ground.
3. **Operate the door lock switch/key cylinder** in both directions to determine the resistor values. If the multi-meter displays zero resistance in one direction, no resistor is need for that direction.
4. Once the resistor value(s) is determined, refer to the wiring diagram for proper wiring.

LOCK relay



UNLOCK relay

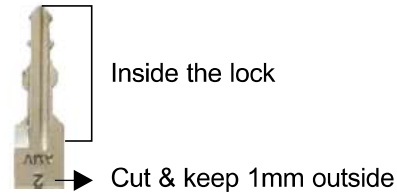
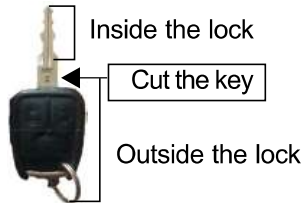
Manual for releasing the steering lock:

1. Please check whether there is steering lock in your vehicle or not, if yes, follow with the next step.
2. Copy a key blade with your factory original key blade and match them so that the copied key blade can start the car.
3. When finish matched, put the copied key blade into the ignition cylinder of car, as the picture shows:

Method 1:



turn the key to
"ON" position.



So that the steering lock can be turn round. Then cut and keep 1mm length of the copied key outside of the lock. See the picture:

4. Stick the push start button on the lock.
(That is the reason for cutting the key.)



Stick on
the lock



5. Attention: If there is chip immobilizer in factory original key or remote control, need to take out the chip immobilizer and hide it inside or near the ignition cylinder. Please refer to installation for chip immobilizer. If you can't find the chip by yourself. Just hide the original key or remote control in or near the ignition cylinder. (Please remember to take out the battery of the remote if you do so).

6. Everything finish like the picture:



7. If you don't want to cut the key for releasing the steering lock, you can drill a hole in the car which near the steering and install the push start button. Like the picture, but it will not convenient for you as you need to use the original key to release the steering lock every time you start the car.



8. Un-plug the factory ignition wire harness to avoid which consume the vehicle battery power.



Method 2:

Use a screw driver and push it into the hole of the ignition cylinder (see photo on the left), turn the ignition key to ACC position, then pull out the key with force will take out the ignition cylinder. Then remove wires from ignition switch and put the push start button over the empty key cylinder slot.

Important:

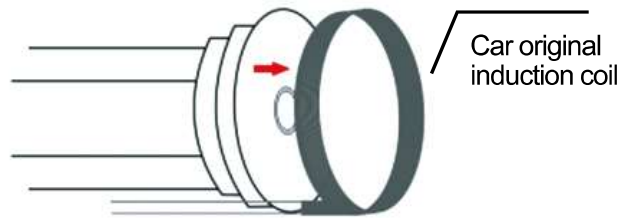
Only a qualified staff can do this as there is risk to lock the steering lock again if the operation is not correct. If you are not a qualified staff, we recommend you to use the method 1 to release the steering lock.

Installation of chip immobilizer

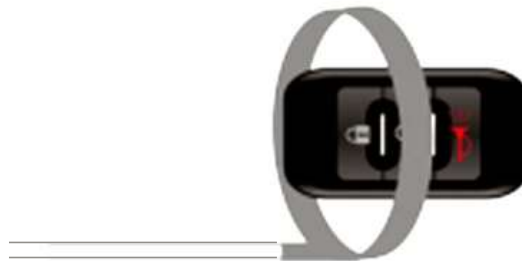
If there is chip immobilizer in original key fobs, please follow with below method

Method 1:

1.Take out the original induction coil from the ignition lock.



2.Put the car original remote control (include the chip immobilizer) into the coil, make sure the induction of the chip immobilizer and the coil is good.



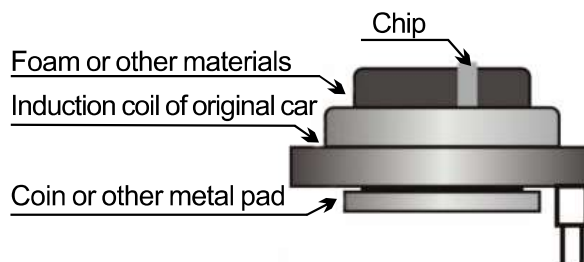
Method 2:

1.Take out the chip immobilizer from the car OEM remote control.

2.Take out the original induction coil from the ignition lock.



3.Stick the chip immobilizer on the induction of car coil, make sure the induction of chip and coil is good.



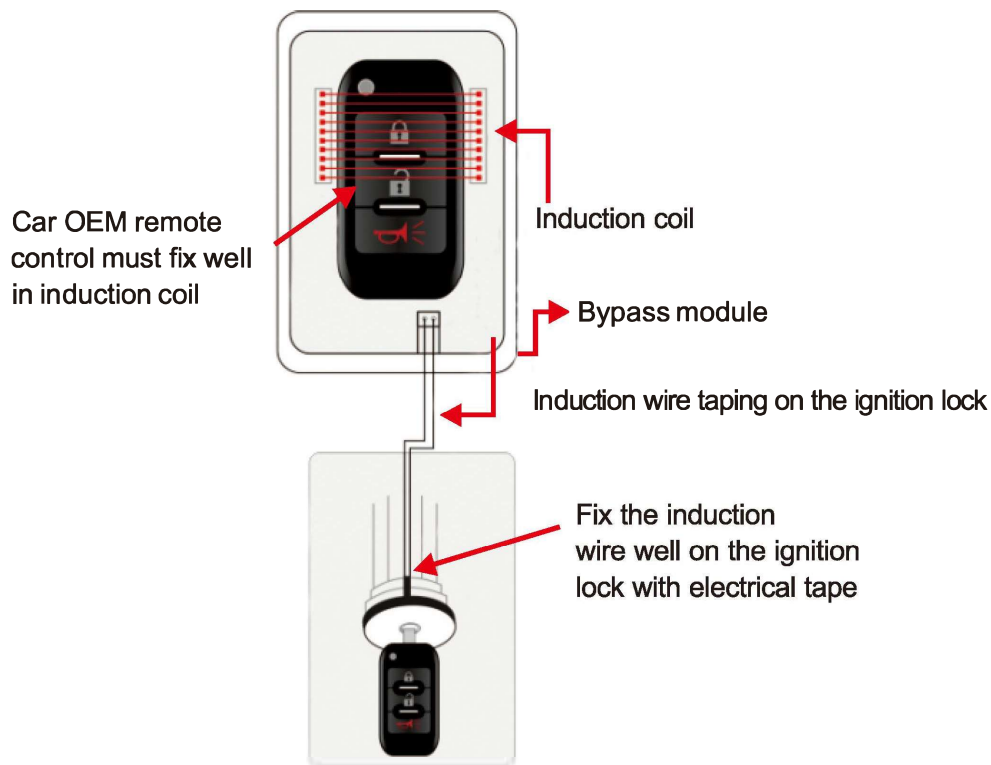
Reminder: Some chips with weak signal are hard to start the car when put on the car original coil. Then need to add a coin or other metal pad underneath the chip to enlarge the signal of it (see above drawing)

Method 3:

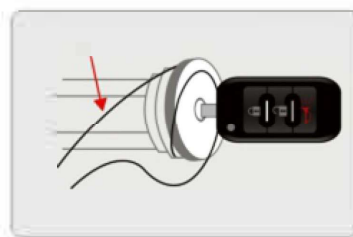
Use an extra bypass module to bypass it, installation steps as below:

1. Put the whole remote control (take out the battery from remote first) include the chip immobilizer into the bypass module.

Note: if size of remote control is big, user can put PCB or chip inside the bypass module.



2. Taping induction wires 2-3 circles on the ignition lock header



Important: Please fix the car OEM remote control and induction wire well around the ignition lock header to make sure the car can be started.

Technical Parameter:

Control module

Working Voltage: DC12V+/-2V

Static current: <20mA

Induction emit current: <45mA

Frequency: 433.92Mhz

Starting system

Working Voltage: DC12V+/-2V

ACC current: 30A

ON current: 30A

Starting current: 30A

Remote control

Working voltage: DC2-3.5V

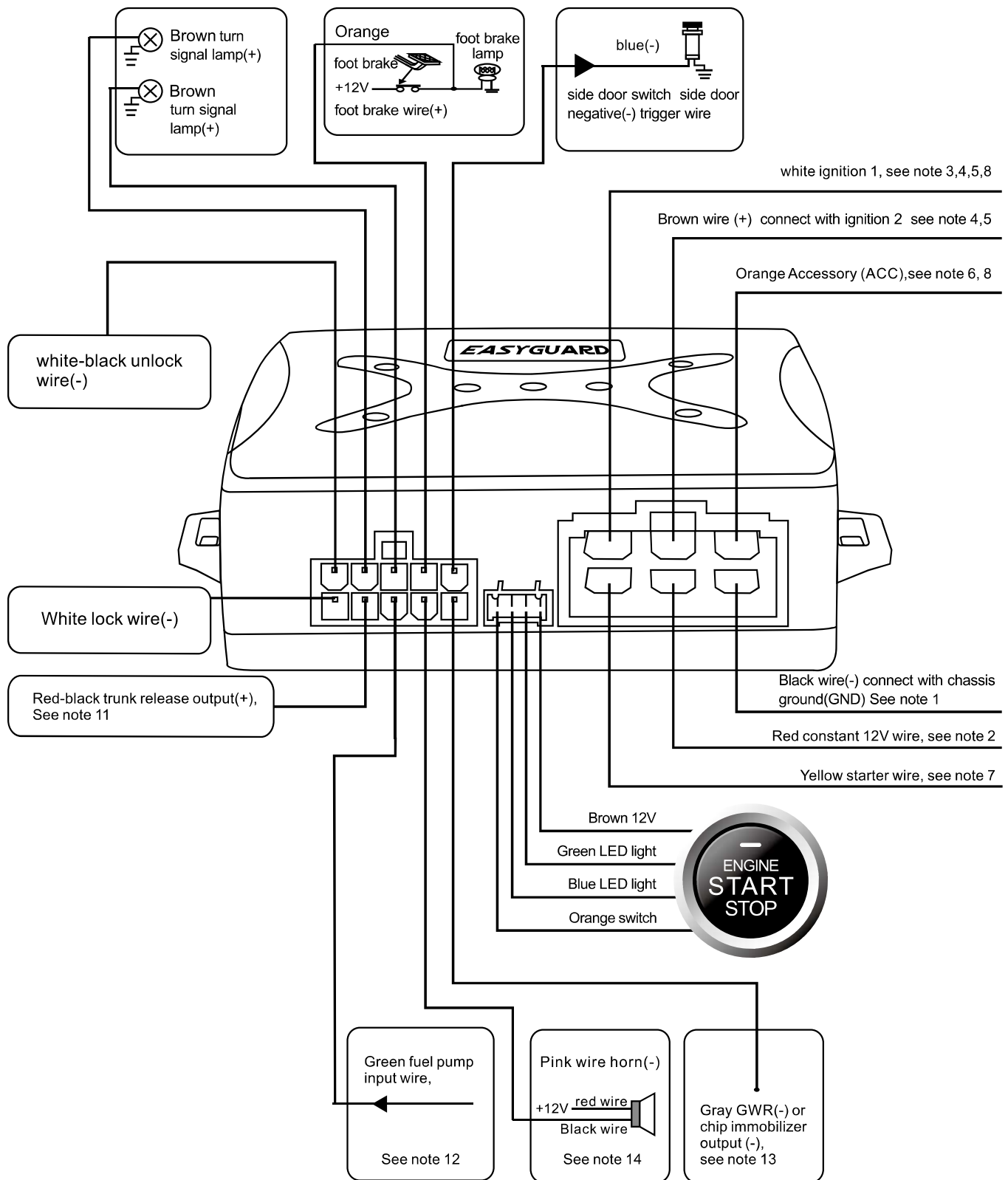
Static current: <8uA

Battery specification: CR2032 Lithium battery

Working frequency: 433.92Mhz

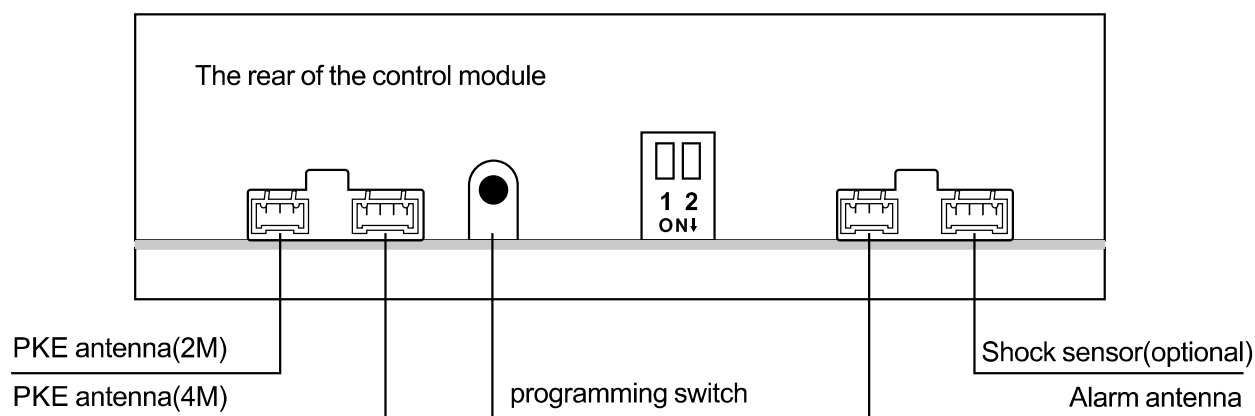
Code method: Rolling code (hopping code)

EC003N Wiring diagram



IMPORTANT TIPS:

1. Connect the black chassis ground wire first when making wire connection to avoid damage on the device.
2. Once you finish all wire connection, test the function first and remember to use the electrical tapes or strips to tighten all the wire connection to avoid any poor connection between the control module & wire harness.



FAQs of EC003N

Dear Customer,

Thank you for purchasing this product. Here are some FAQs for your reference, if there is any question about the products, we recommend you to read the FAQs to find answer and solutions. If those FAQs still not able to help you fix the problem, you can also contact EASYGUARD LTD and we will help you till everything is working well.

1. The car lock and unlock randomly, what' the reason?

This should due to there is PKE induction blind area and cause the device unable to detect the PKE signal well, the solution is to adjust the PKE antenna placed position till you have a maximum PKE induction range. When place the PKE antenna, make sure which is not touch with any metal products.

2. When use remote start function to start the vehicle, it keeps cranking, what's the reason?

It should due to the fuel pump wire not well connected, which should connect with the fuel pump wire or oil path motor or sucker wire in the vehicle, if you can't find this wire in the vehicle. You can connect it with the tachometer wire or ignition 1 wire.

3. When I attempt to start the vehicle, it starts but shut off a few seconds, what's the reason?

There are possible 3 reasons:

a. If there is a chip immobilizer in your car OEM key fob, you need to have a OEM key & also need to buy an extra bypass module in order to make the kits working well. you can buy it from EASYGUARD sales rep if you need.

If you don't want to buy the bypass module, please take out the chip immobilizer from car OEM key fobs and stick it somewhere around the ignition cylinder till you can start the car.

b. The fuel pump wire not well connected, which should connect with the fuel pump wire or oil path motor or sucker wire in the vehicle, if you can't find this wire in the vehicle. You can connect it with the tachometer wire or ignition 1 wire.

c. The engine starting/cranking time is not enough. If so, you need to prolong the start time. Refer to parameter prolong setting instruction in the user manual.

4. Does the alarm with anti-hijacking function?

Yes, the alarm default is with anti-hijacking function.

5. How to do programming?

Please refer to the programming method in the user manual.

6. Is there a GWR (ground while running) wire? Or how to connect with a GWR wire to the alarm?

Yes, there is a gray GWR (Ground while running) wire in the kit, refer to note 13 in user manual of how to connect it.

No need to connect the GWR wire if there is no GWR wire in your vehicle or chip immobilizer wire in your vehicle.

This product is intended to be installed by a professional car alarm installer only! Any attempt to install this product by any person but not a trained professional car alarm installer may result in severe damage to the vehicle or the components.

Warranty information

The quality of this product is strictly controlled before out of the factory, which ensure its advanced performance under normal utilization. And we provide 1 year quality guarantee. If there is any failure due to product quality, we will provide free repair or replacement. Any incorrect operation/installation/using lead the product was failed to work is not in cover of free guarantee service.

Contact us

Zhongshan Yihu Electronics Co.,ltd

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Phone: 86-760-22113597

Web: www.ieasyguard.com

Email: sales@ieasyguard.com

Important: This device can improve the vehicle safety level, but could not prevent the vehicle from stolen or the occurrence of unexpected accidents. Our company will not be liable for any resulting from the damage of this product case by direct or indirect losses.

FCC Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

► Contact us

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