

## D2 Alarm Issues.

### Scenario:

If you find that the key fob no longer works , meaning it does not undo the drivers door lock when pressed. Which requires you to use a key in the drivers door lock to enter the vehicle and subsequently set off the car alarm. Then follow these steps.

### Step 1.

Do you have the EKA code ( Emergency Key Access code)?

This is a 4 digit code The 4 numbers will range from 1 to 15. ( Sometimes written in Alpha - Numeric Hexadecimal format .Hex format 1-9 A-F, where A=10 and F=15 ).

The EKA code can be sourced in a number of places.

- 1) On the security card that was originally supplied with your vehicle, this card also includes Radio code and VIN number.
- 2) From your local LR approved dealer, you may need to provide proof of ownership, this should be FOC.
- 3) From an online resource, such as [www.mgrovercodes.com](http://www.mgrovercodes.com) this will cost £20.
- 4) Have someone download the code from your vehicle before you need it, using a diagnostic system. ( it is probably too late for this one if you are reading this. As if the vehicle is immobilised then diagnostics cannot communicate with the vehicle).

Points 1 to 3 are OK, **IF** a previous owner has not changed the code at some point.

If you have the EKA code. Then enter it using the exact instructions as written below here. ( be aware that Discovery 1 instructions are not the same )

If you get your EKA code and use it correctly , then this allows you to start and drive the vehicle. However you will still need to re-enter it every time you lock the car with the key OR leave the car unlocked with the ignition off for more than 5 minutes as the immobiliser re-arms itself. If you know someone with diagnostics they may be able to program it to an easier to enter number.

# Locks & Alarm

## ENGINE IMMOBILISATION

Engine immobilisation is an important aspect of the security system and includes a feature known as 'passive immobilisation'. This is designed to safeguard the vehicle from theft, should the driver forget to lock the doors and prevents the engine from being started unless the GENUINE handset key is inserted into the starter switch. Engine immobilisation is automatic whenever any of the following conditions occur.

- The vehicle is locked using handset or key.
- Thirty seconds after the starter switch has been turned off AND the driver's door opened.
- Five minutes after the starter switch is turned off, or the alarm system is disarmed.

**NOTE:** *The engine will be re-mobilised automatically whenever the genuine handset key is inserted into the starter switch and turned to position 'II'.*

## Emergency key access

If the handset is damaged, or fails to operate, the engine can be re-mobilised by using the key to enter a unique four number emergency key access code. The code is recorded on the Security Information card and is entered as follows:

### IMPORTANT INFORMATION

When entering a code:

- ENSURE each key movement is carried out with care and precision and turned to the full extent of its travel.
- After turning the key to either the lock or unlock positions, make sure it is FULLY returned to the centre (vertical) position.
- An interval of 10 seconds or more between key turns, or the key being held in a locked or unlocked position for 5 seconds or more will cancel an entry attempt, in which case you must start again with operation 1.

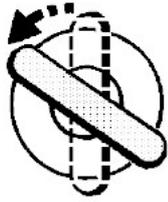


**1.** Ensure that all doors are closed, then using the key turn the driver's door lock to the UNLOCK position (towards the front of the car) and hold in this position for at least 5 seconds until the alarm sounder sounds once). Then return the key to the centre position. It is now possible to use the key to enter the separate numerical values of the four numbers that make up the emergency key access code.



**2. Enter the FIRST number of the code.** If the first number is 4, turn the key (towards the front of the car) to the UNLOCK position 4 times. Ensure the key is FULLY returned to the centre position after each turn.

# Locks & Alarm



**3. Enter the SECOND number of the code.** If the second number is 3, turn the key (towards the rear) to the LOCK position 3 times. Remember; the key must be FULLY

returned to the centre position after each turn.



**4. Enter the THIRD number of the code.** If the third number is 12, turn the key to the UNLOCK position twelve times, ensuring that the key is FULLY returned to the centre position

after each turn.



**5. Enter the FOURTH number of the code.** If the fourth number is 1, turn the key to the LOCK position once. Ensure the key is FULLY returned to the centre position.



**6.** Finally, turn the key to the unlock position once more. If the code has been entered correctly, a double 'bleep' will sound (a single 'bleep' indicates that the code has

been entered incorrectly).

**NOTE:** If the Mislock audible warning has been deselected (by a Land Rover dealer), the alarm sounder will not sound when an EKA code has been entered. Instead, the alarm indicator light on the instrument panel will flash once (for one second) to indicate a successful code entry.

There is now a **five minute delay** before the alarm and engine immobiliser are deactivated.

**DO NOT OPEN THE DOOR OR ATTEMPT TO ENTER THE VEHICLE YET!**

**7.** Through the driver's door window, observe the anti-theft alarm indicator light on the instrument panel. If code entry was successful, this light will continue flashing (once every two seconds) for the five minute delay period.

**DO NOT OPEN THE DOOR OR ATTEMPT TO ENTER THE VEHICLE** until the full delay period has elapsed - this will be indicated by the anti-theft alarm indicator light extinguishing.

**8.** Now open the door, insert the key into the starter and turn the switch to position 'II' IMMEDIATELY! If the starter switch is not turned to position 'II' within 30 seconds of the indicator light extinguishing, the engine will automatically immobilise again.

***If an incorrect code has been entered:***

If an incorrect code has been entered, the alarm sounder will sound once and the anti-theft alarm indicator light will continue to flash. In this case, return to operation '1' and re-enter the code.

After three failed entry attempts, the security system invokes a delay period of ten minutes during which the system will not accept any further attempts to enter a code.

IMPORTANT INFORMATION
Memorise the emergency key access code or keep the Security card on your person in case of emergencies. NEVER leave the card in the vehicle.

## **Step 2.**

If you have your EKA code then this makes life a little easier as you can drive the vehicle.

However if you cannot get your EKA code quickly a couple of things you can try to check.

**\*\*\* Try a second fob to see if the first fob is at fault \*\***

1) Does the little red LED on the key fob light up when you press either of the two buttons? Make sure to try both lock and unlock.

A) If pressing the lock button makes the LED light up , but the unlock button does not then you have a fault inside the key fob. Try opening the fob and press the unlock microswitch, does the LED light up? If it does, your fob case is causing a fault, exchange it ASAP, if it does not then the microswitch may be at fault, you can try bridging across the terminals with a paperclip / hairclip.

If the microswitch is at fault then microswitches can be purchased from a well known auction site, or you can send the fob away to be repaired for approx £15. This company has provided a good service in the past.

### ***Remote Specialist Ltd***

Unit 6

Kirby Estate

Trout Road West Drayton Middlesex UB7 7RU

01895 440 320

*I got them off Ebay*

[http://stores.ebay.co.uk/carspares24?\\_rdc=1](http://stores.ebay.co.uk/carspares24?_rdc=1)

B) If the LED does NOT light when either of the buttons are pressed then change the battery, Make sure you use a New good quality brand name battery. NOT a pound shop special.

C) If the LED lights up when you press lock and unlock But the car does not do anything then the fob is not communicating with the car. **Goto Step 3**

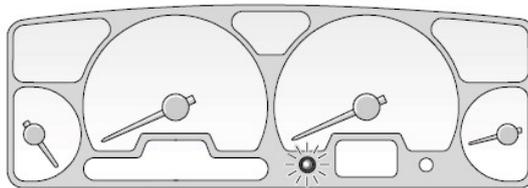
### Step 3

**This is where you having a functional EKA code helps as someone with a nanocom ( other diagnostics are available) can enter the cars system and disable the alarm and immobiliser to allow you to diagnose the issue with minimum fuss.**

1) If you have the EKA, enter it.

A) The diagnostics system can now Identify if the Key fob is recognised as one the car is programmed to accept. If it does, then check what happens to the dash LED when the fob is pressed.

#### **Anti-theft alarm indicator light**



H2546

This light provides information about the status of the alarm system, as follows:

#### ***When the vehicle is locked:***

The light flashes rapidly while the alarm is arming itself. After ten seconds, the light adjusts to a slower frequency and continues to flash as an anti-theft deterrent until the alarm is disarmed.

#### ***If the engine is immobilised (even though the alarm has been disarmed):***

The light flashes slowly until the engine is remobilised.

#### ***If the alarm has been triggered:***

The light will flash rapidly when the alarm is disarmed until the starter switch is turned to position II.

#### ***If the remote handset battery power is low:***

The light will flash rapidly for ten seconds after the handset has been used when the driver's door is opened.

1.

During unlock the direction indicators should flash once, and the interior lights should light up. The dash LED will stop flashing at 2 second intervals.

B) If it does accept the fob, but the drivers door does not unlock, Then look at whether your central locking system has failed. Try a double press on the unlock button. This should, if the system is working correctly unlock not only the drivers door but also the passenger and rear doors. If the other doors do unlock, but the drivers door does not then look at the drivers door latch mechanism, As this is a common failure point.

C) If the diagnostics show the car has received a signal from the fob but is not recognised, then somehow the sync between the car and the Fob has been lost, reprogram the car to accept the fob.

D) If the car does not receive the fob signal, then Go to Step 4. 1. But in your case it will be quieter.

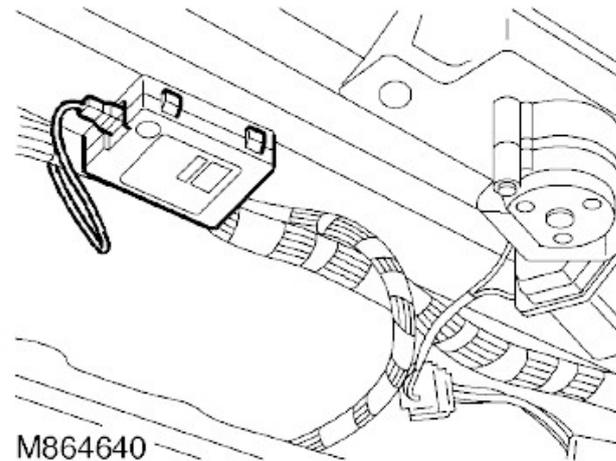
#### **Step 4.**

#### **\*\* Caution\*\***

**This is going to get noisy if you do not have the EKA code, for obvious reasons I am not going to detail how to disable the alarm horns.**

1) Unlock the car using the key on the drivers door.

A) Go to the rear sunroof ( If fitted, if not then you are looking to remove the roof lining.) In front of the rear sunroof under the roof lining by the sunroof handles is the RF receiver, it is quite common for it to fail due to corrosion on the electrical connectors or the earth point. It is often helpful to remove it clean the connections and refit. In some cases taking the unit and drying on a radiator have helped.



B) Once you have refitted , try the fob again to see if it will unlock / reset the alarm.

C) If this does not work, then you have the choice of trying to find a friend who has a D2 to “borrow” their RF receiver and see if this works as it is a plug and play unit or buy one. Part number is YWY000080 ( **BUT** it may not resolve your problems)

D) There is also the risk that the BCU by passenger footwell, has been exposed to moisture. The connectors/ wires between the RF receiver and the BCU can be degraded by condensation or moisture ingress.

This will require the verification of the communication between the BCU and the RF receiver.

Directly wiring the RF Receiver to the BCU can rule out the internal vehicle wiring.

At this point. a copy of the Rave manual will be needed to hand to help with trouble shooting.

<http://www.green-oval.com/data/lr/>

Download file Rave01.iso this file includes the Workshop manual and electrical diagrams / descriptions.

