

## 4. KEYS & SECURITY ALARM

### Keys

A mechanical key is used to operate the combined ignition switch/steering column lock, and the emergency manual door locking function via the left hand door. The keyhead incorporates an electronic transponder which communicates with a sensor by the ignition switch to allow engine starting only with the correct key.

A duplicate key is supplied with the new car and, on receipt, should be separated and kept in a safe place for use in an emergency. The mechanical key code and security system PIN (sPecific Identification Number) are also supplied with the keys, and should be removed from the key ring and noted safely with the vehicle documents. These numbers will be required when ordering or programming replacement or additional keys from your dealer. Ensure that a spare key is always accessible to guard against becoming stranded.

Memorising the PIN will allow the security system to be overridden in case of transmitter loss or failure (see page 20).

### **⚠ WARNING:**

**Never leave the car unattended with the key in the ignition switch, especially if unsupervised children and/or animals are in the car. Dangers can arise from imprudent operation of window or other electrical controls. If engine starting attempts are made, an accident could be caused, resulting**

**in death or serious injury.**

### **Vehicle Security Alarm**

The Lotus Evora is fitted as standard with a PFK 457 immobiliser/alarm which includes the following features:

- U.K. approval to Thatcham category 1.
- 'Dynamic coding' of the transmitter keys; Each time the transmitters are used, the encrypted rolling code is changed to guard against unauthorised code capture.
- Passive activation of immobiliser, central locking and alarm system.
- Ingress protection using sensing switches on the latches of both doors, and the tailgate.
- Selectable cockpit intrusion detection using a microwave sensor.
- Self powered siren to maintain protection if the vehicle battery is disconnected.
- Personal protection by 'on demand' activation of the siren.
- Emergency alarm override and transmitter key programming using an alarm sPecific Identification Number (PIN).
- Homesafe and automatic drive along locking.

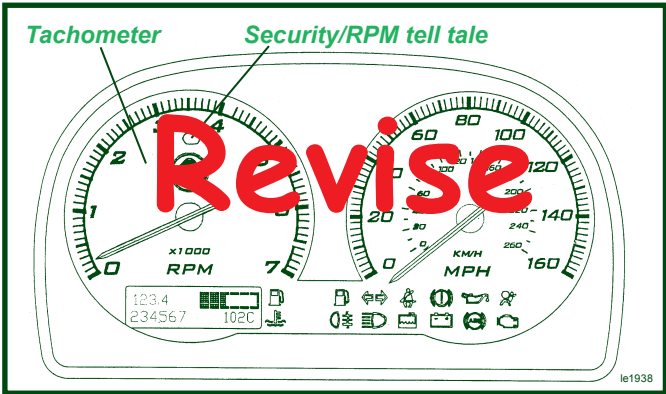
### **Transmitter Keys**

Two transmitter keys are provided with the car, and combine a mechanical key blade with a three button transmitter unit incorporated into the key head. The mechanical key operates the ignition switch/steering lock and emergency manual door locking. The transmitter operates the central locking, alarm system and electronic immobiliser. The two transmitter keys should be kept separate, and a replacement obtained immediately after any loss to ensure that a spare is always available.

The 4-digit code for the mechanical key, the unique serial number of the immobiliser/alarm, and the system's 5-digit sPecific Identification Number (PIN), are supplied on plastic tags attached to the key ring of a new vehicle. In order to allow replacement transmitter keys to be matched to the car, it is essential that these numbers are recorded and kept safely with the vehicle documents. If the codes are not available on receipt of the vehicle, enquire with the dealer or vendor immediately.

### **Disarming the Alarm/Unlocking**

When approaching the car, it is likely that the vehicle is locked and the alarm armed, as indicated by the alarm red tell tale lamp



in the speedometer face flashing once every 3 seconds. To disarm the alarm and unlock the doors:

- Press the central, unlock, button on the transmitter key. The first press will unlock the driver's door, and a second press, the passenger's door.
- This command will be acknowledged by a double flash of the hazard lamps.
- The alarm tell tale will be extinguished.
- The interior and mood lights will fade on, and remain lit for up to 2 minutes (if set to the 'courtesy' position).
- The engine will be mobilised (see below).

If a door is not opened within 2 minutes, the doors will passively re-lock and the alarm system re-arm.

## Passive Immobilisation

In order to provide a measure of automatic vehicle security, independent of any driver initiative, the system will 'passively' immobilise the engine's cranking and fuel pump circuits after the ignition has been turned off for 40 seconds, or a similar period has elapsed since the last mobilising command. With the ignition off, the alarm tell tale will indicate that immobilisation is in effect by a brief flash every 1.5 seconds. With ignition on, immobilisation is indicated by a continuously lit tell tale.

To mobilise the car (i.e. allow engine starting) with ignition on or off, press once the transmitter centre button; the alarm tell tale will be extinguished.

## Arming the Alarm/Locking the Doors

To lock the doors and arm the alarm, remove the ignition key, shut both doors, and check that the tailgate is properly closed.

- Press once the raised logo button on the transmitter key.
- This command will be acknowledged by a single flash of the hazard lamps.
- Both doors will be locked, the engine immobilised and the alarm system armed. A settling period of 40 seconds must expire before the ingress sensors become active.
- The alarm tell tale will flash once every 3 seconds.
- The interior and mood lamps (if lit) will fade off.

### Note:

- i) If the system is armed when a door is not fully shut, three **triple** beeps will sound as a warning and the doors will not be locked. Opening a door will **not** trigger the alarm.
- ii) If the system is armed when the tailgate is not fully closed, three warning **double** beeps will be heard, and the doors will not be locked. Opening a door in this instance **will** trigger the alarm.

When fully armed, and after the settling period of 40 seconds has expired, the alarm will be triggered by any of the following actions:

- Interruption of the car battery power supply or siren cables.
- Energising the ignition circuit ('hot wiring').
- Opening a door;
- Opening the tailgate;
- Movement detected within the cabin (unless de-selected).

If the alarm is triggered, the hazard warning lamps will flash and the wailing siren will sound for a period of approximately 30 seconds before closing down and resetting, ready for any further triggering input. If a trigger is continuously present (e.g. door left open), the alarm will repeat for a maximum of eight 30 second cycles before excluding the triggering sensor for the remainder of the armed period.

To silence the siren, press once the central, disarm button on the transmitter key. If necessary, press a second time to disarm the alarm. Note that if the vehicle battery has been disabled, it will not be possible to interrupt the siren until completion of the sequence.

## Alarm Tell Tale Summary

Tell tale off;	Alarm disarmed, engine mobilised.
Tell tale on;	Immobilised with ignition on.
Brief flash every 1.5 secs;	Immobilised with ignition off.
Brief flash every 3 secs.	Alarm armed, engine immobilised.

## Turning Off the Interior Movement Sensor

A microwave sensor is mounted behind roof lining, near the interior lamp, and is able to detect substantial physical movement within the cockpit, and trigger the alarm.

If an animal is to be left in the vehicle, or if for any other reason it is desired to exclude the interior movement sensor, press once the transmitter logo button in the normal way to set the alarm, and then press a second time (within 2 seconds) to exclude the interior movement sensor. A single beep will be heard as confirmation. This exclusion will be automatically cancelled when the alarm is disarmed.

## Opening the Tailgate

To open the tailgate, press once the end button on the transmitter key; the latch will release and allow the tailgate to be opened, assisted by pressurised struts. Boot lamps will switch on automatically whenever the tailgate is open.

To prevent unintended release whilst driving, the tailgate cannot be opened when the ignition is switched on, but with ignition on, an already open tailgate will be indicated on the right hand screen in the instrument panel via the vehicle silhouette graphic.

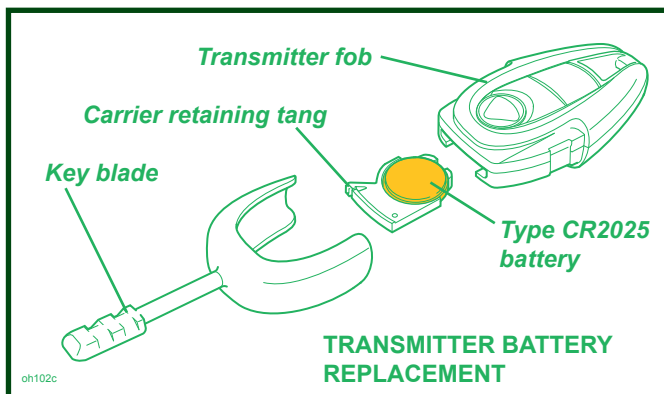
To close the tailgate, ensure that no persons or objects will be trapped before pulling down the panel and pressing firmly over the latch to assure its complete engagement. Guard against inadvertently locking the transmitter key in the boot.

See also 'Tailgate' section.

## Manual Activation of Siren

If, for personal security reasons, it is desired to manually activate the siren at any time when the ignition is off, hold pressed the end button on the transmitter key for 3 seconds. The wailing siren will sound, and the hazard lamps flash for a period of 30 seconds. To stop the siren, press once any of the transmitter buttons.

Manual siren activation will not affect the alarm system status.



### Transmitter Key Battery Replacement

The transmitter fobs will normally operate within a range of 5 metres from the car, but this may be reduced by the presence of other radio signals in the vicinity.

The transmitters are powered by a long life 3V Lithium battery, type CR2025, readily available from electrical outlets, which with normal use should last for 3 years. To ensure continuity of operation, it is recommended to renew the batteries every 12 months:

- Using a small screwdriver, prise the transmitter fob from the key blade carrier utilising the slot provided on the back of the case.
- At the end face of the fob, prise the retaining tang inwards whilst withdrawing the battery carriage from the fob.
- Remove the old battery and wait for 10 seconds before inserting a new battery, with +ve sign lowermost, and holding the battery only by its periphery.
- Slide the battery carriage back into the fob, pressing firmly to engage the clip, and then clip back onto the key blade.
- The transmitter should now operate normally.

### Programming Additional Transmitter Fobs

Two transmitter fobs are provided with the new car. If one transmitter is lost or damaged, a replacement should be obtained immediately, and programmed to the car alarm controller using the system owner's unique sPecific Identification Number (PIN). Up to 4 transmitter fobs can be matched with the alarm system,

but all fobs must collectively undergo the single programming operation:

## Disconnecting the Car Battery

In order to prevent the alarm being triggered, before disconnecting the vehicle battery, ensure that the alarm is disarmed.

See also page ??

## Emergency Disarming/Mobilising

If the key transmitter is damaged or fails to function, and a spare key is not available, the alarm system 5-digit PIN may be used to disarm the alarm **provided that** access is available to the cabin:

- Turn on the ignition. The alarm tell tale will light.
- If the alarm is armed, accessing the cabin, or turning on the ignition will trigger the alarm until completion of this emergency process.
- Within 10 seconds, turn the ignition off; the tell tale will begin to flash.
- After a number of flashes corresponding to the first digit of the PIN, turn on the ignition. Note that the first flash may not be of full duration (but is still to be counted) dependent on the waveform position at time of ignition switch off.
- Turn off the ignition and after a number of flashes corresponding to the second digit of the PIN, turn on the ignition. Repeat this process until all 5 digits have been completed. Note that 10 flashes correspond to a zero digit.
- If the PIN is entered correctly, the alarm will now be overridden and the engine mobilised. However, passive immobilisation will still occur after an ignition off time of 40 seconds, requiring a repeat of the above procedure to mobilise. Passive arming and passive door locking cannot occur until a transmitter is used to operate the alarm.

If, at any stage of the process, a number is entered incorrectly, the system will immediately revert to the start, so that the whole PIN must be re-entered.

## Programming Additional Transmitters

A maximum of 6 transmitters may be programmed to the car, any thereafter overwriting the first to have been programmed.

- With the engine immobilised (tell tale flashes briefly once per second), turn on the ignition.

- Enter the PIN as detailed above, followed by the additional two digits 1, 1.
- The tell tale will flash rapidly for one second, then turn off.
- Within 8 seconds, press any button on the transmitter to be programmed. The tell tale will then pulse rapidly and the siren will beep.
- Within 10 seconds press any button on the next transmitter to be programmed (if applicable), and repeat this process for all remaining transmitters.
- When all transmitters have been programmed, wait for 10 seconds, or turn off the ignition.

To disable a lost or stolen transmitter from the system, use the above procedure to programme 6 transmitters, if necessary repeatedly reprogramming the same transmitter if less than 6 programmed transmitters are to be used.

The following statement is mandated by the Federal Communications Commission:

**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 UNDESIRE OPERATION.**

**NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.**