Mégane

N.T. 3156A

XA0X

ENCRYPTED KEY TRANSPONDER ENGINE IMMOBILISER

For the sections not covered in this Technical Note, refer to Workshop Manual MR 312

Cancels and replaces Technical Notes 3060A, 3080E and 3088A

77 11 202 159 **DECEMBER 1998** **Edition Anglaise**

The repair methods given by the manufacturer in this document are based on the technical specifications current when it was prepared.

The methods may be modified as a result of changes by the manufacturer in the production of the various component units and accessories from which his vehicles are constructed".

Contents

IMPORTANT
NEW ENGINE IMMOBILISER SYSTEM
NEW PROCEDURES

New features:

- There is no longer a security code, but a repair code allocated to the vehicle for life from the time of manufacture (there is no longer a number inscribed in the key head).
  For any operation on this system, this repair code number can be obtained from the local assistance network (example : Delta Assistance for France, NVSR for the UK by fax only).

  From now on, the vehicle VIN number and fabrication number will have to be provided with every code number request. This allows the operator to identify the vehicle so that the correct code is given.

- Spare keys are supplied uncoded, without numbers.

- This system can involve a maximum of four keys in conjunction with or without PLIPs.

- This system can be used with a radio frequency PLIP for locking / unlocking the doors (vehicle with UCH only). **This radio frequency PLIP (if equipped) does not affect the engine immobiliser.**

- **IMPORTANT:**
  With this new system, it is not possible to replace a complete set (decoder units or UCH* and key heads) at once. These components are sold uncoded.

  This is because it will not be possible to code these components when replacing them if none of them has the original vehicle code in their memory.

* Passenger Compartment Control Unit.

GENERAL

It is based on an engine immobiliser controlled by a key recognition system with a random rolling code.

A coded electronic unit (operating without a battery), independent of the operation of the PLIP (if equipped) is integrated in the head of each key for the vehicle.

When the ignition is switched on, a ring around the ignition switch interrogates and captures the code sent by the key and transmits it to the decoder unit or to the **UCH*** (depending on equipment).

If it recognises the code, vehicle starting will therefore be authorised.

The engine immobiliser is activated a few seconds after the key is removed from the ignition switch and is visualised by flashing of the red tell-tale light located on the instrument panel.

When a vehicle is manufactured, a code with eight characters is allocated to it so that the engine immobiliser system can be made operational.

This number will be required in after sales for:
- adding keys with or without PLIPs (maximum of four keys in total),
- "de-allocation" of one or more keys,
- replacing one or more keys,
- replacing a decoder unit or a **UCH*** depending on equipment.

* Passenger Compartment Control Unit

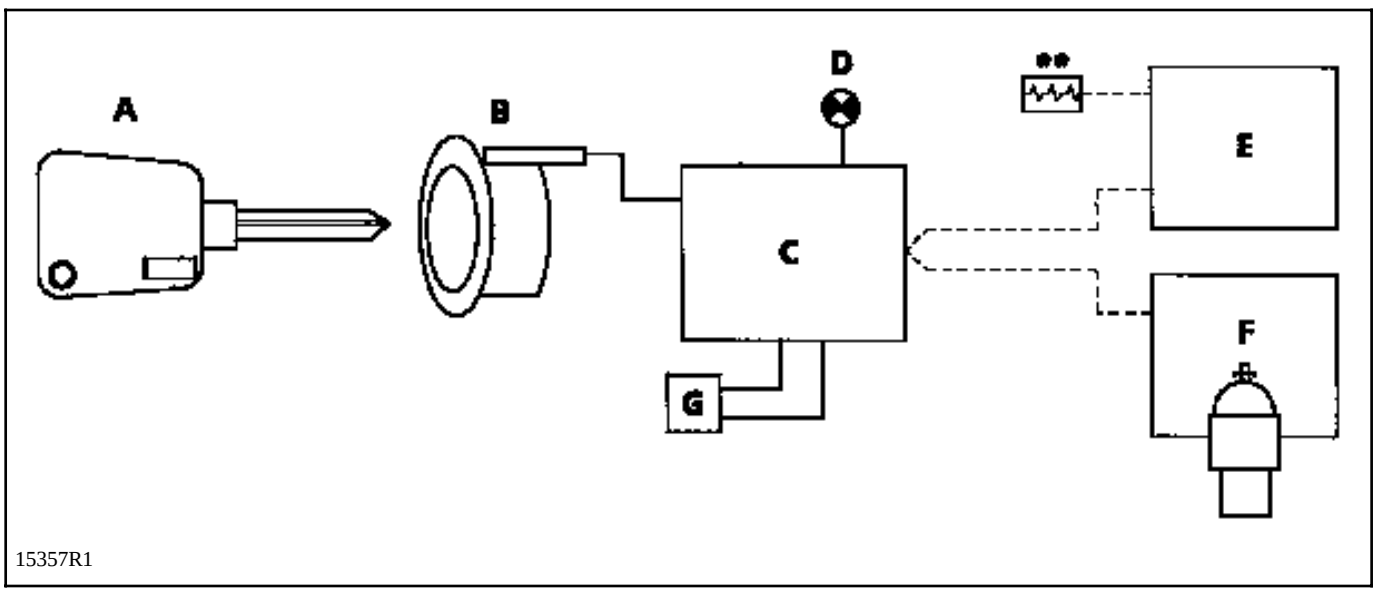
This number, which consists of eight numbers, is available from the local assistance network (Delta Assistance for France, NVSR for the UK by fax only, for example) using the vehicle's VIN and fabrication number.

NOTE:

- This system can be fitted to petrol or diesel vehicles
  Petrol and direct injection diesel vehicle (example : F9Q) : the engine immobiliser function is carried out by the injection computer.
  Diesel vehicle with coded solenoid valve: the engine immobiliser function is carried out by a coded solenoid valve (on the injection pump).

IMPORTANT: vehicles equipped with the **F9Q** engine have a special injection computer which will only operate if it is coded.

PRESENTATION OF THE SYSTEM



A Engine immobiliser key with or without PLIP
B Engine immobiliser antenna / transponder ring
C Decoder unit or **UCH*** (depending on equipment)
D Red engine immobiliser tell-tale light
E Injection computer (petrol or direct injection diesel)
F Diesel coded solenoid valve (except direct injection diesel)
G Diagnostic socket

* Passenger Compartment Control Unit (on vehicle with door locking PLIP).
** This tell-tale light is not functional on all vehicles (see Wiring Diagrams).

DESCRIPTION OF THE SYSTEM

With this system, the engine immobiliser is activated approximately **10 seconds** after the ignition is switched off (shown by flashing of the red immobiliser tell-tale light).

It consists of:

- Two special key heads (with or without PLIP) (A) fitted with a coded electronic unit allowing control of the engine immobiliser.

- An antenna / transponder ring (B), located around the ignition switch, fitted with an electronic unit which is responsible for transmitting the code from the keys to the decoder unit or the UCH (C) (depending on equipment).

NOTE : this ring is not coded.

- A decoder unit or **UCH*** (C) located under the dashboard on the driver's side.

  It ensures the following functions:
  - decoding of the key signal from the antenna / transponder ring,
  - management of the engine immobiliser system by sending a code to the injection computer (petrol or direct injection diesel) or to the coded solenoid valve (diesel except direct injection) to authorise vehicle starting,
  - control of the red immobiliser tell-tale light,
  - dialogue with the fault finding tool.

NOTE: for other functions controlled by the UCH (depending on equipment), see the corresponding Technical Note.

- A red engine immobiliser tell-tale light (D) located on the instrument panel which signals:
  - activation of the engine immobiliser system,
  - non-recognition of the key,
  - a fault on the system for vehicles fitted with a coded solenoid valve (diesel).

* Passenger Compartment Control Unit.

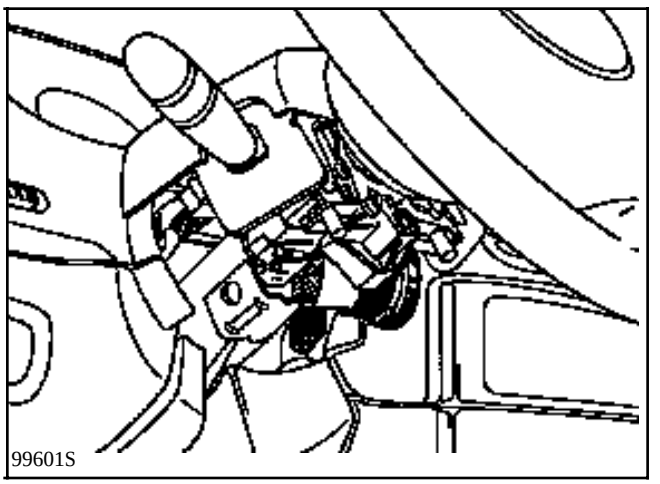
- An injection computer (E) (petrol or direct injection diesel).

- A coded solenoid valve (F) (diesel except direct injection).

- A diagnostic socket (G) used for the repair and configuration of the system.

REMOVAL - REFITTING OF THE ANTENNA / TRANSPONDER RING

Place the steering column at its highest setting (depending on equipment) and remove the lower half cowling (three bolts).



Disconnect the ring connector.

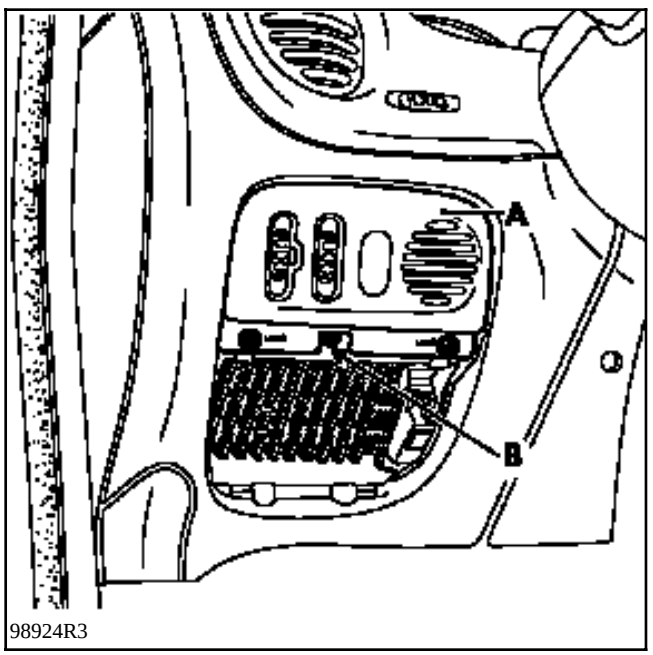
Turn the ring a quarter turn clockwise and release it.

When refitting, ensure that the ring and the wiring are correctly positioned and clipped in place.

IMPORTANT: so that the coil wires are not damaged, do not put the ring or its connector under stress when removing or refitting the half cowling.
Damage to these wires will lead to non-recognition of the key when the ignition is switched on.

REMOVAL - REFITTING OF THE DECODER UNIT (depending on equipment)

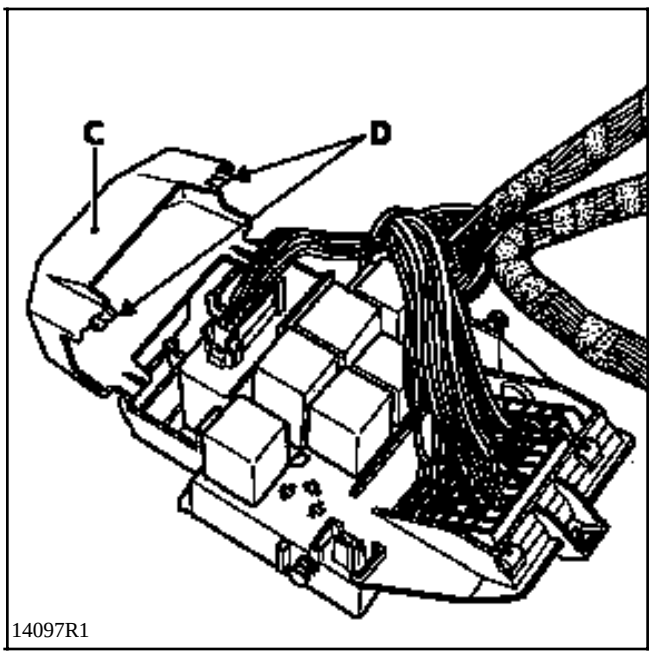
Remove:
- the fuse cover,
- part (A) by removing its two bolts,
- the mounting bolt (B) from the relay fuse unit.



98924R3

Unclip the relay fuse unit from its two side supports by pushing it towards the front of the vehicle and release it from below the dashboard.

To access the decoder unit, open cover (C) by pressing on tabs (D) at the bottom of the relay fuse unit.

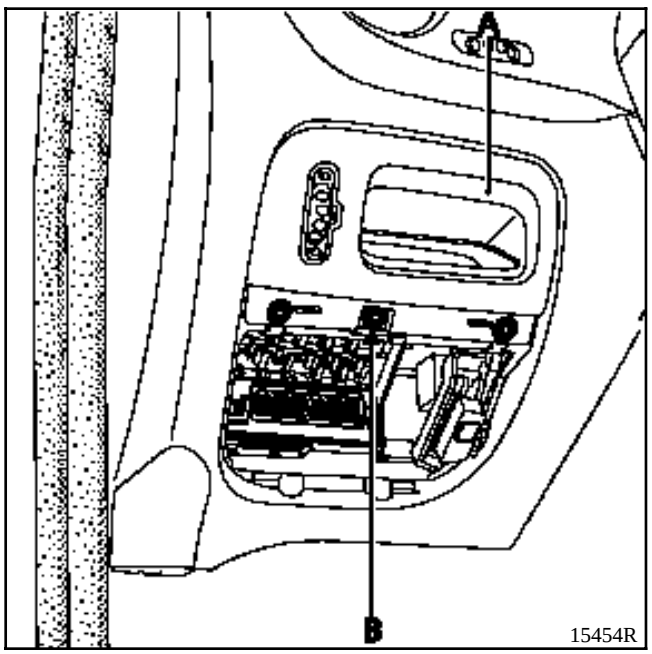


14097R1

IMPORTANT: ensure that cover (C) is correctly in place when refitting.

REMOVAL - REFITTING OF THE PASSENGER COMPARTMENT CONTROL UNIT (UCH) (depending on equipment)

Remove:
- the fuse cover,
- part (A) by removing its two bolts,
- the mounting bolt (B) for the UCH.



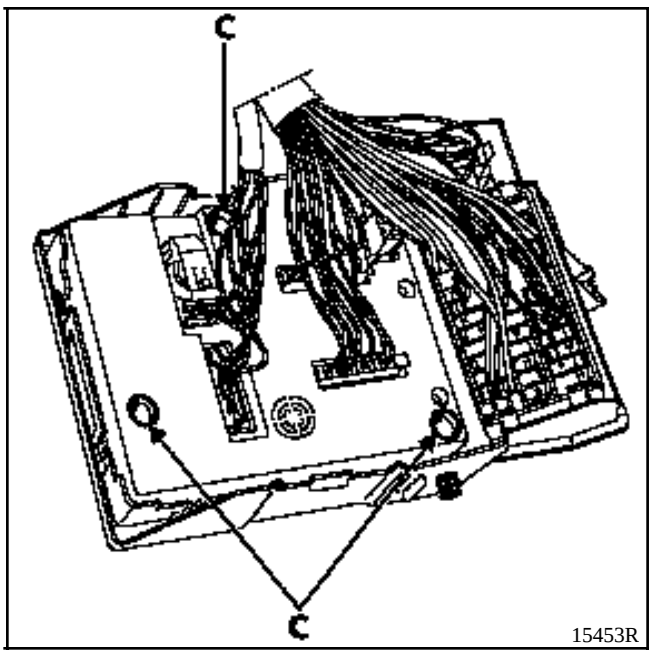
Disconnect the connector located under the UCH unit.

Unclip the fuses / UCH mounting from its two side supports by pushing it towards the front of the vehicle and release it from below the dashboard.

Remove the protective plastic cover.

Disconnect the UCH connectors.

Remove the UCH after removing its three mounting bolts (C).



IMPORTANT: remember to replace the protective plastic cover when refitting.

OPERATION

When the engine immobiliser system is operational (approximately **10 seconds** after the ignition is switched off), the red engine immobiliser tell-tale light flashes (slow flashing, one illumination / second).

After switching on the ignition, the antenna / transponder ring analyses the key code and sends it to the decoder unit or the UCH (depending on equipment).

If the code is recognised by the decoder unit or by the UCH (depending on equipment) it sends a code to the injection computer or to the coded solenoid valve via a coded connection and extinguishes the red engine immobiliser tell-tale light (after approximately **3 seconds**).

At this precise moment, several things may happen:

- The injection computer or coded solenoid valve (depending on equipment) has no reference code in its memory:
  - the code sent to it is inscribed in its memory.
- The injection computer or coded solenoid valve (depending on equipment) has a reference code in its memory:
  - The code sent to it is compared with its reference code.
  - If the two codes match, the computer unlocks the injection or the coded solenoid valve (depending on equipment) and authorises engine starting. When the ignition is switched on, the injection warning light (petrol or direct injection diesel if equipped) and the red engine immobiliser tell-tale light illuminate for a few seconds and extinguish, thereby indicating that the system is operating correctly.
  - If the two codes do not match, the system remains locked to prevent the engine being started. When the ignition is switched on, the injection warning light (petrol or direct injection diesel if equipped) illuminates for a few seconds and extinguishes whilst the red engine immobiliser tell-tale light flashes (rapid flashing). Vehicle starting is not authorised.

NOTE: in order for the system to operate correctly, there must be no objects (example: key rings) placed between the key and the antenna / transponder ring.

IMPORTANT: when the battery has a low charge, the drop in voltage caused by the attempt to activate the starter motor may re-activate the engine immobiliser. If the voltage is too low, it is impossible to start the vehicle, even by pushing.

REPLACING, REALLOCATING OR ADDING ONE OR MORE KEY HEADS (without replacing the decoder unit)

Vehicle with decoder unit (without Plips)

Only the keys present when this procedure is carried out will be operational, on condition:
- that they have already been coded for this vehicle,
- that they are new (uncoded).

NOTE: to de-allocate a key, simply do not have it present when carrying out this operation.

- **Procedure using the XR25**

XR25 connected (fiche **n° 38**, code **D38**):

1. Check that the decoder unit is correctly coded. Bargraph **19 RH side** should be extinguished.

IMPORTANT: the maximum time between carrying out each operation is three minutes, otherwise the procedure is cancelled (returns to original configuration).

2. With the ignition switched off, enter the secret after sales code (eight numbers) as indicated below:
- enter **G41***, "**?**" is shown on the display,
- enter the first three figures and validate with *, "**?**" is shown on the display,
- enter the next two figures and validate with *, "**?**" is shown on the display,
- enter the last three figures and validate with *, "**LEC**" is shown on the display,
- the code appears on the display in three sequences, then "**?**" is shown on the display:

  - If the code displayed is correct, validate with *, **Pro** and **bon** are shown on the display, bargraph **19 LH side** illuminates (the immobiliser tell-tale light extinguishes).

  - If the code displayed is incorrect, enter "**G**" and restart the procedure for entering the code.

3. Enter **# 58** :

- Switch on the ignition using one of the keys to be allocated:
  - if the key is accepted, bargraph **18 LH side** illuminates, the red tell-tale light flashes rapidly and the display on the XR25 indicates "**1**" (**# 58**),
  - if the key is not accepted, bargraph **18 LH side** does not illuminate (**# 58 = 0**); in this case, restart the procedure or try again with another key.

  NOTE: in the event that the same key is tried twice, the system ignores it (the value **# 58** does not change), the engine immobiliser tell-tale light remains extinguished and bargraphs **11** and **12 RH side** illuminate.

- Switch on the ignition using the other key or keys to be allocated (maximum of four) if they are available. Important: they must be old keys for the vehicle or new keys which are uncoded (**# 58** indicates the number of keys allocated).

  IMPORTANT: in the event that some of the keys are not available, a reallocation procedure will have to be carried out afterwards with all the keys.

4. Switch off the ignition, validate the allocation using command mode **G81***, **Pro** and **fin** are shown on the display. Bargraphs **18** and **19 LH side** extinguish. The red engine immobiliser tell-tale light flashes, the keys are operational. The procedure is complete.

NOTE: it is possible to cancel the key reallocation procedure during the procedure itself by entering command mode **G80*** with the ignition switched off (returns to the original configuration).

- **Procedure using the NXR or OPTIMA tools**

NXR or OPTIMA 5800 connected.

1. Choose the "**Fault finding**" menu.

2. Select and validate the vehicle type (Mégane).

3. Select and validate the system on which fault finding is to be carried out:
- **Engine immobiliser** for vehicles with decoder unit (without PLIP),
- **Connection unit** for vehicles with UCH (with PLIP).

4. Choose the "**Status**" menu and check whether the decoder unit is correctly coded. The bargraph for the "**Key programming not carried out**" line should be extinguished.

5. Choose the "**Command**" menu.

IMPORTANT: the maximum time between each operation is three minutes, otherwise the procedure is cancelled (returns to original configuration).

6. Select and validate the "**Computer configuration**" function and validate line **41** "**Introducing the secret code**".

With the ignition switched off, enter the secret after sales code (eight figures) and validate it.

- If the code displayed is correct, **"OK"** is displayed on the screen.

- If the code displayed is incorrect, "**Fail**" is displayed on the screen.
  Then choose the "**Ignore**" menu and restart the procedure for entering the code.

7. Select the "**Parameters**" menu ; line **58** will show the number of keys allocated.

NOTE: if the fault finding tool is equipped with an update which is earlier than version 03, carry out point **7** of the procedure, ignoring the number of keys allocated, as indicated on line 58 of the "**Parameters**" menu.

The number of keys allocated will only be displayed after point **8** has been carried out.

- Switch on the ignition using one of the keys to be allocated:
  - if the key is accepted, the red tell-tale light flashes rapidly and line **58** indicates "**1**",
  - if the key is not accepted, the red tell-tale light remains extinguished and line **58** indicates "**0**". In this case, restart the procedure or try again with another key.

  NOTE: in the event that the same key is used twice, the system ignores it (the value of line **58** does not change) and the engine immobiliser tell-tale light remains extinguished.

- Switch the ignition on for a few seconds using the vehicle key or keys to be allocated (maximum of four) if they are available.

  IMPORTANT: these must be the old keys for the vehicle or new uncoded keys. Line **58** indicates the number of keys allocated.

  IMPORTANT: in the event that some of the keys are not available, a reallocation procedure will have to be carried out afterwards with all the keys.

8. Switch off the ignition and validate the allocation of keys:
- choose the "**Command**" menu,
- select and validate the "**Computer configuration**" function,
- select and validate line **81**.

If the procedure is successful, **"OK"** is displayed on the screen.
The red engine immobiliser tell-tale light flashes, the keys are operational.
The procedure is complete.

NOTE: it is possible to cancel the key reallocation procedure during the procedure itself, after selecting and validating line **80** of the "**Command**" menu, "**Computer configuration**" function with the ignition switched off (returns to original configuration).

Vehicle with UCH (with Plips)

Only the keys present during this procedure will be operational, on condition:
- that they were already coded for this vehicle,
- that they are new (uncoded).

- **Procedure using the XR25**

XR25 connected (fiche **n° 64**, side **2/2**, code **D45**):

1. Check that the UCH is correctly coded. Bargraph **16 RH side** should be extinguished.

IMPORTANT: the maximum time between carrying out each operation is three minutes, otherwise the procedure is cancelled (returns to the original configuration).

2. Ignition off, enter the secret after sales code (eight figures) as indicated below:
- enter **G41***, "**?**" is shown on the display,
- enter the first three figures and validate with *, "**?**" is shown on the display,
- enter the next two figures and validate with *, "**?**" is shown on the display,
- enter the last three figures and validate with *, "**LEC**" is shown on the display,
- the code appears on the display in three sequences, then "**?**" is shown on the display:

  - If the code displayed is correct, validate with *, **Pro** and **bon** are shown on the display, bargraph **17 LH side** illuminates (the engine immobiliser tell-tale light extinguishes).

  - If the code displayed is incorrect, enter "**G**" and restart the procedure for entering the code.

3. Enter **# 58** :

- Switch on the ignition using one of the keys to be allocated:
  - if the key is accepted, bargraph **16 LH side** illuminates, the red tell-tale light flashes rapidly and the display on the XR25 indicates "**1**" (**# 58**),
  - if the key is not accepted, bargraph **16 LH side** does not illuminate (**# 58 = 0**); in this case, restart the procedure or try again with another key.

  NOTE: in the event that the same key is used twice, the system ignores it (the value of line 58 does not change) and the engine immobiliser tell-tale light remains extinguished and bargraphs **14 LH side** and **RH side** illuminate.

- Switch on the ignition using the other vehicle key or keys to be allocated (maximum of four) if available.
  IMPORTANT: these must be the old keys for the vehicle or new uncoded keys (**# 58** indicates the number of keys allocated).

  IMPORTANT: in the event that some of the keys are not available, a reallocation procedure will have to be carried out afterwards with all the keys.

4. Switch off the ignition, validate the allocation using command mode **G81***, **Pro** and **fin** are shown on the display. Bargraphs **16** and **17 LH side** extinguish. The red engine immobiliser tell-tale light flashes, the keys are operational. The procedure is complete.

NOTE: it is possible to cancel the key reallocation procedure during the procedure itself by entering command mode **G80***, ignition on (returns to the original configuration).

- **Procedure using the NXR or OPTIMA**

The method is the same as for the version with decoder unit. Follow the same procedure.

Special features of PLIPs (depending on equipment)

In order for the radio frequency PLIPs to work, it may be necessary to resynchronise them after having allocated the keys.

Press on the PLIP for more than **10 seconds** (until the red tell-tale light on the key extinguishes), then press it again three times.

REPLACING A DECODER UNIT ONLY (depending on equipment) VEHICLE WITHOUT PLIPS

To carry out this procedure you must have at least one of the old keys for the vehicle.

- **Procedure using the XR25**

XR25 connected (fiche **n° 38**, code **D38**):

1. Check that the new decoder unit is not coded. Bargraph **19 RH side** should be illuminated.

IMPORTANT: the maximum time between carrying out each operation is three minutes, otherwise the procedure is cancelled (returns to the original configuration).

2. Ignition off, enter the secret after sales code (eight figures) as indicated below:
- enter **G41***, "**?**" is shown on the display,
- enter the first three figures and validate with *, "**?**" is shown on the display,
- enter the next two figures and validate with *, "**?**" is shown on the display,
- enter the last three figures and validate with *, "**LEC**" is shown on the display,
- the code appears on the display in three sequences, then "**?**" is shown on the display:

  - If the code displayed is correct, validate with *, **Pro** and **fin** are shown on the display, bargraph **19 LH side** illuminates.

  - If the code displayed is not correct, enter "**G**" and restart the procedure for entering the code.

3. Switch on the ignition **(one of the old keys for the vehicle must be used)**:
- if the code is correct, bargraph **18 LH side** illuminates, the red tell-tale light flashes rapidly (**# 58 = 1**), bargraphs **11**, **12** and **13 RH side** illuminate,
- if the code is incorrect, bargraph **18 LH side** does not illuminate; in this case, restart the procedure.

NOTE: if the key is not coded, bargraph **18 LH side** does not illuminate; restart the procedure **using an old key for the vehicle**.

4. Switch on the ignition using the other vehicle key or keys to be allocated (maximum of four) if available.
IMPORTANT: these must be the old keys for the vehicle or new uncoded keys (**# 58** indicates the number of keys allocated).

IMPORTANT :
In the event that some of the keys are not available, a reallocation procedure will have to be carried out afterwards with all the keys.

5. Switch off the ignition, validate the procedure using mode **G81***, the red engine immobiliser tell-tale light should flash. Bargraphs **18**, **19 LH side** and **19 RH side** extinguish.

NOTE: it is possible to cancel the key reallocation procedure during the procedure itself by entering command mode **G80***, ignition on (returns to the original configuration).

6. Check the engine configuration:
- petrol or direct injection diesel vehicle, bargraph **3 RH side** should be extinguished,
- diesel vehicle with coded solenoid valve, bargraph **3 RH side** should be illuminated.

Changing the configuration:
- petrol or direct injection diesel vehicle, enter command mode **G22*1***,
- diesel vehicle with coded solenoid valve, enter command mode **G22*2***.

7. The procedure is complete.

- **Procedure using the NXR or OPTIMA**

NXR or OPTIMA 5800 connected:

1. Choose the "**Fault finding**" menu.

2. Select and validate the vehicle type (Mégane).

3. Select and validate the system on which fault finding is to be carried out:
- **Engine immobiliser** for vehicles with decoder unit (without PLIP).
- **Connection unit** for vehicles with UCH (with PLIP).

4. Choose the "**Status**" menu and check that the decoder unit is not coded. The bargraph for the "**Programming not carried out**" line should be illuminated.

5. Choose the "**Command**" menu.

IMPORTANT: there should be a maximum of three minutes between carrying out each operation, otherwise the procedure is cancelled (returns to the original configuration).

6. Select and validate the "**Computer configuration**" function and validate line **41** "**Entering the secret code**".

Ignition off, enter the secret after sales code (eight figures) and validate it.

- If the code displayed is correct, **"OK"** is displayed on the screen.

- If the code displayed is incorrect, "**Fail**" is displayed on the screen.
  Then choose the "**Ignore**" menu and restart the procedure for entering the code.

7. Select the "**Parameters**" menu; line **58** will show the number of keys allocated:

NOTE: if the fault finding tool has an update which is earlier than version **03**, carry out point **7** of the procedure, ignoring the number of keys allocated as indicated on line **58** of the "**Parameters**" menu.
The number of keys allocated will only be visible after point **8** has been carried out.

- Switch on the ignition **(one of the old keys for the vehicle must be used)**:
  - if the code is correct, the bargraph for line **18** on the "**Status**" menu illuminates, the red tell-tale light flashes rapidly and line **58** indicates "**1**",
  - if the code is incorrect, the bargraph for line **18** on the "**Status**" menu remains extinguished, the red tell-tale light remains extinguished and line **58** indicates "**0**". In this case, restart the procedure.

  NOTE: if the key is not coded, the bargraph for line **18** on the "Status" menu does not illuminate. Restart the procedure using an old key for the vehicle.

- Switch on the ignition using the other vehicle key or keys to be allocated (maximum of 4) if they are available.
  IMPORTANT: these must be the old keys for the vehicle or new uncoded keys. Line **58** indicates the number of keys allocated.

  IMPORTANT: in the event that someof the keys are not available, a reallocation procedure will have to be carried out afterwards with all the keys.

8. Switch off the ignition and validate the key allocation:
- choose the "**Command**" menu,
- select and validate the "**Computer configuration**" function,
- select and validate line **81**.

The red engine immobiliser tell-tale light flashes, the keys are operational.

NOTE: it is possible to cancel the key reallocation procedure during the procedure itself, after selecting and validating line **80** of the "**Command**" menu, "**Computer configuration**" function, ignition off (returns to the original configuration).

9. Check the engine configuration:
- Petrol or direct injection diesel vehicle, the bargraph for the "**Coded diesel solenoid valve configuration**" line on the "**Status**" menu should be extinguished.
- Diesel vehicle with coded solenoid valve, the bargraph for the "**Coded diesel solenoid valve configuration**" line on the "**Status**" menu should be illuminated.

Changing the configuration

After choosing the "**Command**" menu**,** select and validate the "**Computer configuration**" function:
- Select the "**Petrol engine configuration**" line for petrol or direct injection diesel vehicles.
- Select the "**Diesel engine configuration**" line for diesel vehicles with coded solenoid valve.

10. The procedure is complete.

REPLACING A UCH ONLY (depending on equipment) VEHICLE WITH PLIPS

To carry out this procedure you must have at least one of the old keys for the vehicle.

- **Procedure using the XR25**

XR25 connected (fiche **n° 64**, side **2/2**, code **D45**):

1. Check that the new **UCH** is not coded.
Bargraph **16 RH side** should be illuminated.

IMPORTANT: there should be a maximum of three minutes between carrying out each operation, otherwise the procedure is cancelled (returns to the original configuration).

2. Ignition off, enter the secret after sales code (eight figures) as indicated below:
- enter **G41***, "**?**" is shown on the display,
- enter the first three figures and validate with *, "**?**" is shown on the display,
- enter the next two figures and validate with *, "**?**" is shown on the display,
- enter the last three figures and validate with *, "**LEC**" is shown on the display,
- the code appears on the display in three sequences, then "**?**" is shown on the display:

  - If the code displayed is correct, validate with *, **Pro** and **fin** are shown on the display, bargraph **17 LH side** illuminates.

  - If the code displayed is not correct, enter "**G**" and restart the procedure for entering the code.

3. Switch on the ignition **(one of the old keys for the vehicle must be used)**:
- if the code is correct, bargraph **16 LH side** illuminates, the red tell-tale light flashes rapidly (**# 58 = 1**), bargraphs **14 LH side** and **RH side** and **15 RH side** illuminate,
- if the code is incorrect, bargraph **16 LH side** does not illuminate; in this case, restart the procedure.

NOTE: if the key is not coded, bargraph **16 LH side** does not illuminate; restart the procedure using an old key for the vehicle.

4. Switch on the ignition using the other vehicle key or keys to be allocated (maximum of four) if they are available.
IMPORTANT: these must be the old keys for the vehicle or new uncoded keys (**# 58** indicates the number of keys allocated).

IMPORTANT: in the event that none of the keys are available, a reallocation procedure will have to be carried out afterwards with all the keys.

5. Switch off the ignition, validate the procedure using mode **G81***, the red engine immobiliser tell-tale light should flash. Bargraphs **16 LH side** and **RH side** and **17 LH side** extinguish.

NOTE: it is possible to cancel the key reallocation procedure during the procedure itself by entering command mode **G80*,** ignition on (returns to the original configuration).

6. Check the engine configuration:
- Petrol or direct injection diesel vehicle, bargraph **19 RH side** side 2/2 should be extinguished.
- Diesel vehicle with coded solenoid valve, bargraph **19 RH side** side 2/2 should be illuminated.

Changing the configuration:
- Petrol or direct injection diesel vehicle, enter command mode **G25*1***.
- Diesel vehicle with coded solenoid valve, enter command mode **G25*2***.

7. Enter command mode **G60*** to lock the programming into the system in order to obtain correct operation of the functions managed by the UCH. Bargraph **17 RH side** should illuminate.

NOTE: for other UCH configurations (depending on vehicle equipment) see the UCH Technical Note.

8. The procedure is complete.

- **Procedure using the NXR and OPTIMA**

NXR or OPTIMA 5800 connected.

1. Choose the "**Fault finding**" menu.

2. Select and validate the vehicle type (Mégane).

3. Select and validate the system on which fault finding is to be carried out:
- **Engine immobiliser** for vehicles with decoder unit (without PLIP).
- **Connection unit** for vehicles with UCH (with PLIP).

4. Choose the "**Status**" menu and check that the decoder unit is not coded. The bargraph for the "**Key programming not carried out**" line should be illuminated.

5. Choose the "**Command**" menu.

IMPORTANT: there should be a maximum of three minutes between carrying out each operation, otherwise the procedure is cancelled (returns to the original configuration).

6. Select and validate the "**Computer configuration**" function and validate line **41** "**Entering the secret code**".

Ignition off, enter the secret after sales code (eight figures) and validate it.

- If the code displayed is correct, **"OK"** is displayed on the screen.

- If the code displayed is incorrect, "**Fail**" is displayed on the screen.
Then choose the "**Ignore**" menu and restart the procedure for entering the code.

7. Select the "**Parameters**" menu; line **58** will show the number of keys allocated :

NOTE: if the fault finding tool has an update which is earlier than version **03**, carry out point **7** of the procedure, ignoring the number of keys allocated as indicated on line **58** of the "**Parameters**" menu.
The number of keys allocated will only be visible after point **8** has been carried out.

- Switch on the ignition **(one of the old keys for the vehicle must be used)** :
  - if the code is correct, the bargraph for line **18** on the "**Status**" menu illuminates, the red tell-tale light flashes rapidly and line **58** indicates "**1**",
  - if the code is incorrect, the bargraph for line **18** on the "**Status**" menu remains extinguished, the red tell-tale light remains extinguished and line **58** indicates "**0**". In this case, restart the procedure.

  NOTE: if the key is not coded, the bargraph for line **18** on the "**Status**" menu does not illuminate. Restart the procedure using an old key for the vehicle**.**

- Switch on the ignition using the other vehicle key or keys to be allocated (maximum of 4) if available.
  IMPORTANT: these must be the old keys for the vehicle or new uncoded keys. Line **58** indicates the number of keys allocated.

  IMPORTANT: in the event that some of the keys are not available, a reallocation procedure will have to be carried out afterwards with all the keys.

8. Switch off the ignition and validate the key allocation:
- Choose the "**Command**" menu.
- Select and validate the "**Computer configuration**" function.
- Select and validate line **81**.
  The red engine immobiliser tell-tale light flashes, the keys are operational.

NOTE: it is possible to cancel the key reallocation procedure during the procedure itself after selecting and validating line **80** of the "**Command**" menu, "**Computer configuration**" function, ignition off (returns to the original configuration).

9. Check the engine configuration:
- Petrol or direct injection diesel vehicle, the bargraph for the "**Coded diesel solenoid valve configuration**" line on the "**Status**" menu should be extinguished.
- Diesel vehicle with coded solenoid valve, the bargraph for the "**Coded diesel solenoid valve configuration**" line on the "**Status**" menu should be illuminated.

Changing the configuration
After choosing the "**Command**" menu, select and validate the "**Computer configuration**" function:
- Select the "**Petrol engine configuration**" line for petrol or direct injection diesel vehicles.
- Select the "**Diesel engine configuration**" line for diesel vehicles with coded solenoid valve.

10. Lock the programming into the system by selecting and validating line **60** in order to obtain correct operation of the functions managed by the UCH.

NOTE: for other UCH configurations (depending on vehicle equipment) see the UCH Technical Note.

11. The procedure is complete.

Special features of PLIPs

In order for the radio frequency PLIPs to work, it may be necessary to resynchronise them after having allocated the keys.

Press on the PLIP for more than **10 seconds** (until the red tell-tale light on the key extinguishes), then press it again three times.

REPLACING THE INJECTION COMPUTER (petrol and direct injection diesel vehicle)

The injection computer is supplied uncoded. It will therefore have to be programmed with the engine immobiliser system code when it is fitted so that vehicle starting can be authorised.

IMPORTANT: vehicles equipped with the **F9Q** engine have a special injection computer which will only operate if it is coded.

Simply carry out the following operations:
- use the coded key for the vehicle to switch the ignition on for a few minutes without starting the engine,
- switch off the ignition, the engine immobiliser function will be ensured approximately **10 seconds** afterwards (the red engine immobiliser tell-tale light flashes).

NOTE: it is possible to check starting prevention:

- **Using the XR25**

- **Vehicle with decoder unit** = fiche 38, code **D38**.
- **Vehicle with UCH** = fiche 64 side 2/2, code **D45**.

Switch off the ignition, wait until the red tell-tale light starts to flash slowly.

Enter command:
- **G04*** for vehicles equipped with a decoder unit,
- **G29*** for vehicles equipped with a UCH.

Ignition still switched off (bargraph "**Forced protection mode**" illuminates).

Switch on the ignition and check that it is not possible to start the vehicle and that the tell-tale light flashes (rapid flashing).

- **Using the NXR or OPTIMA**

NXR or OPTIMA 5800 connected.

1. Choose the "**Fault finding**" menu.

2. Select and validate the vehicle type (Mégane).

3. Select and validate the system on which fault finding is to be carried out:
   - **Engine immobiliser** for vehicles with decoder unit (without PLIP).
   - **Connection unit** for vehicles with UCH (with PLIP).

4. Choose the "**Command**" menu, then select and validate the "**Actuator command**" function.

5. Select and validate the "**Forced protection mode command**" line.

Switch on the ignition and check that it is not possible to start the vehicle and that the tell-tale light flashes (rapid flashing).

CHECKING

In injection fault finding, it is possible to determine the status of the computer.

IMPORTANT: this verification process is not operational on all computers.

Using the XR25

Connect the **XR25** to the vehicle and enter the code corresponding to the type of injection (ignition on).

- If the injection computer is not coded, bargraph **2 RH side** (engine immobiliser) should be illuminated and after entering ***22**, "**2def**" should be shown on the XR25 display. Cassette No. 15 needs to be used for this test.

- If the injection computer is coded and there is no fault on the coded line, bargraph **2 RH side** should be extinguished and after entering ***22**,"**bon**" should appear on the XR25 display (even if the computer coding does not correspond to the vehicle).

NOTE: if the injection computer finds a fault on the coded line, "**1def**" will appear on the **XR25** display after entering ***22** (bargraph **2 RH side** should illuminate). In this case, repair it and erase the fault by disconnecting the battery.

Using the NXR or OPTIMA

NXR or OPTIMA 5800 connected.

1. Choose the "**Fault finding**" menu.

2. Select and validate the vehicle type (Mégane).

3. Select and validate the system on which fault finding is to be carried out (injection).

4. Select the "**Fault**" menu and check that everything is correct:
- if the computer is not coded, the message "**Code not programmed**" is displayed in this menu,
- if the computer is coded and no fault appears, the message "**Fault not tested by the computer**" is displayed in this menu.

IMPORTANT

With this engine immobiliser system, the vehicle retains its engine immobiliser code for life.

In addition, the system no longer has a security code.

For this reason, testing using computers borrowed from the store which must then be returned or used on another vehicle is prohibited.

They can no longer be decoded.

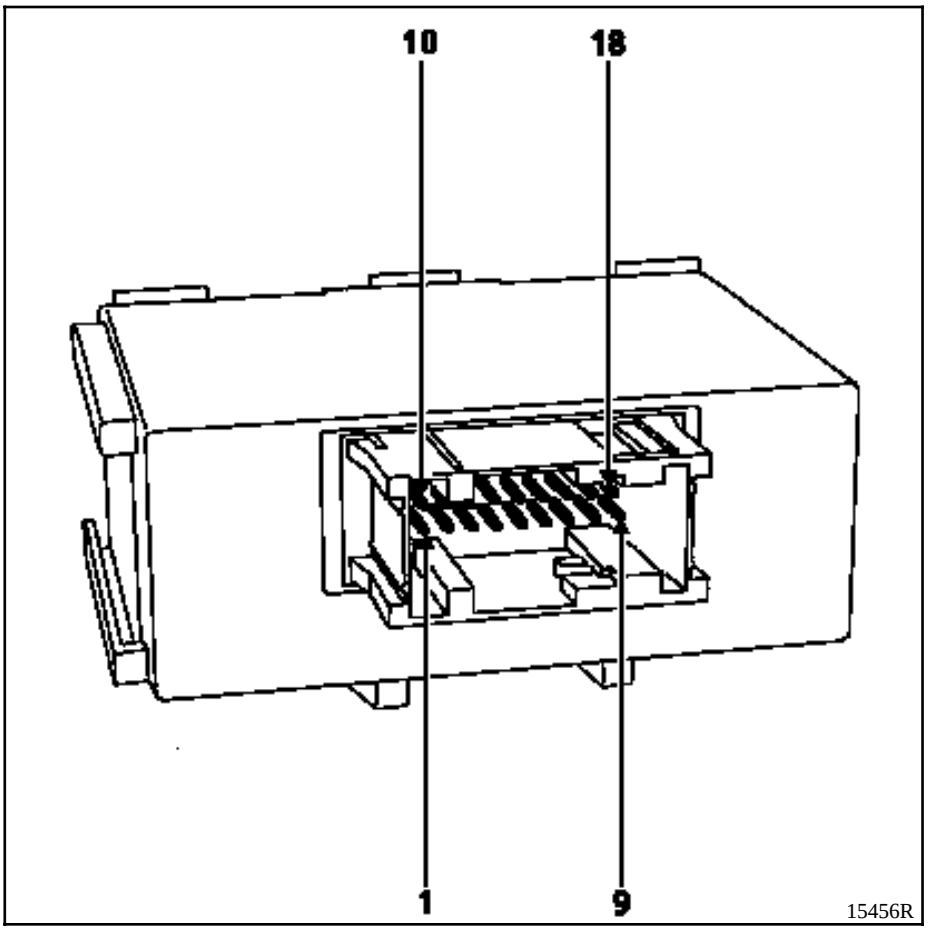
REPLACING THE CODED SOLENOID VALVE ELECTRONIC UNIT (diesel except direct injection)

For the operation to remove / refit the screening which gives access to the coded solenoid valve and the electrical solenoid, see the Technical Notes corresponding to the vehicle generation (**N.T. 2568A**, **2990A**, etc.).

The electronic unit of the solenoid valve is supplied uncoded. It will therefore be necessary to programme it with the engine immobiliser system code when it is fitted in order to authorise vehicle starting.

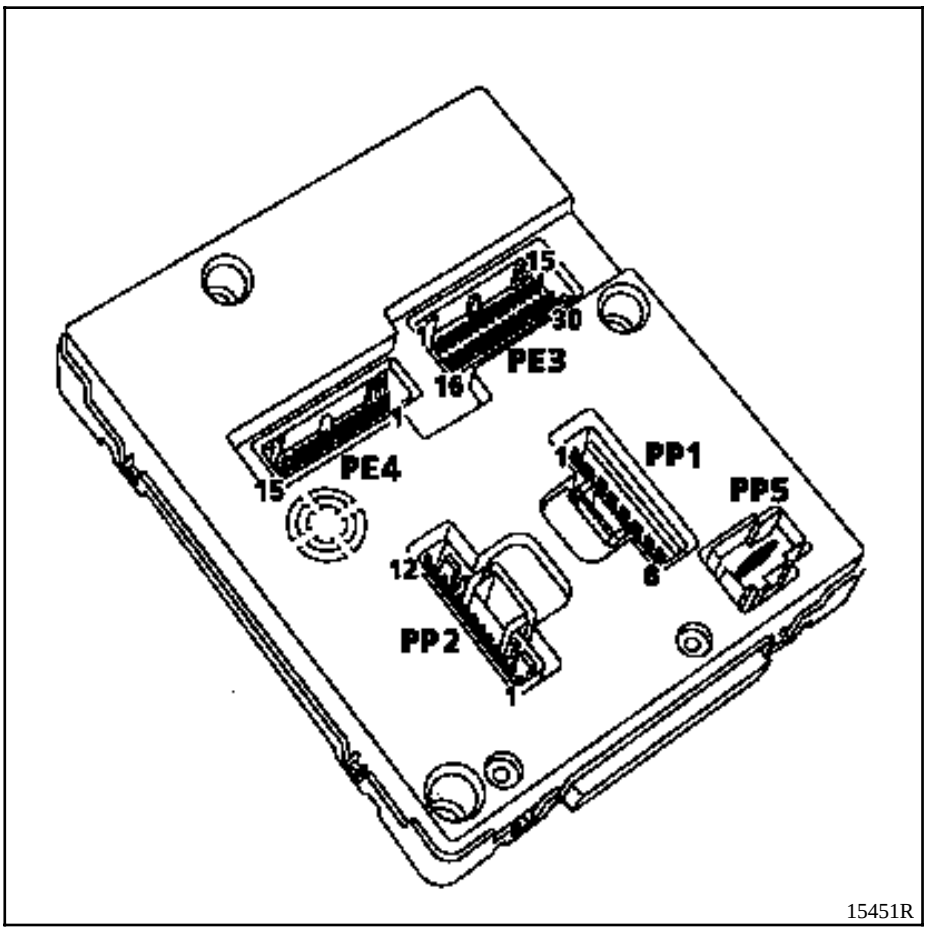
Simply carry out the following operations:
- use the coded key for the vehicle to switch the ignition on for a few seconds without starting the engine,
- switch off the ignition, the engine immobiliser function will be ensured approximately **10 seconds** afterwards (the engine immobiliser telltale light flashes).

DECODER UNIT CONNECTIONS (vehicle without PLIP)



Track	Allocation
1	Antenna / transponder ring - decoder unit connection
3	Diagnostic socket information (line L)
4	Coded information to the injection computer or electronic unit of the coded solenoid valve
5	Red engine immobiliser tell-tale light
7	+ After ignition feed
9	+ Before ignition feed
10	Antenna / transponder ring - decoder unit connection
12	Diagnostic socket information (line K)
14	Antenna / transponder ring - decoder unit connection
15	Earth
17	Antenna / transponder ring - decoder unit connection

PASSENGER COMPARTMENT CONTROL UNIT CONNECTIONS (UCH) (vehicle with PLIP)



Only the tracks used for the engine immobiliser system are described below (for the others, refer to the "UCH" Technical Note).

1 track black connector (PP5)

Track	Allocation
1	+ Before ignition feed

8 track black connector (PP1)

Track	Allocation
1	Earth
3	+ After ignition feed
4	Earth

15 track grey connector (PE4)

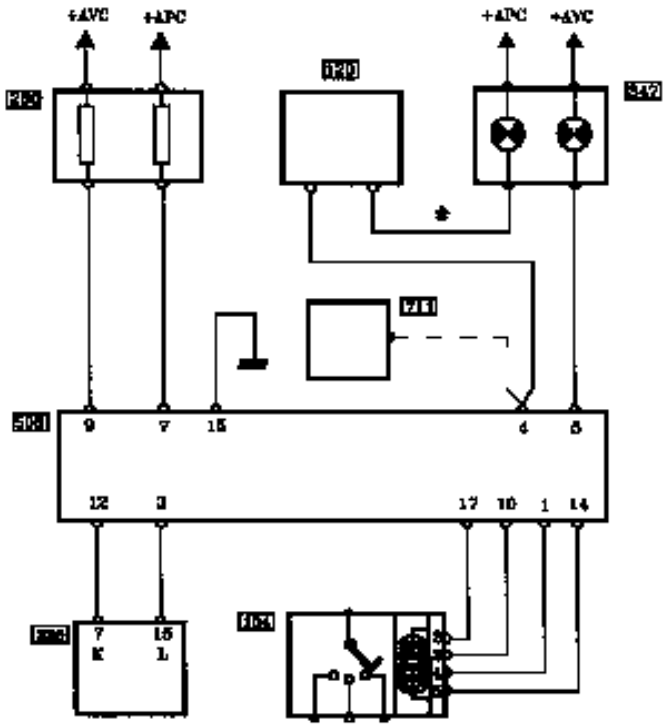
Track	Allocation
7	Diagnostic socket information (line K)

30 track grey connector (PE3)

Track	Allocation
2	Transponder ring / UCH connection
3	Transponder ring / UCH connection
16	Coded information to the injection computer or electronic unit of the coded solenoid valve
20	Red engine immobiliser tell-tale light
22	Transponder ring / UCH connection
26	Transponder ring / UCH connection
29	Diagnostic socket information (line L)

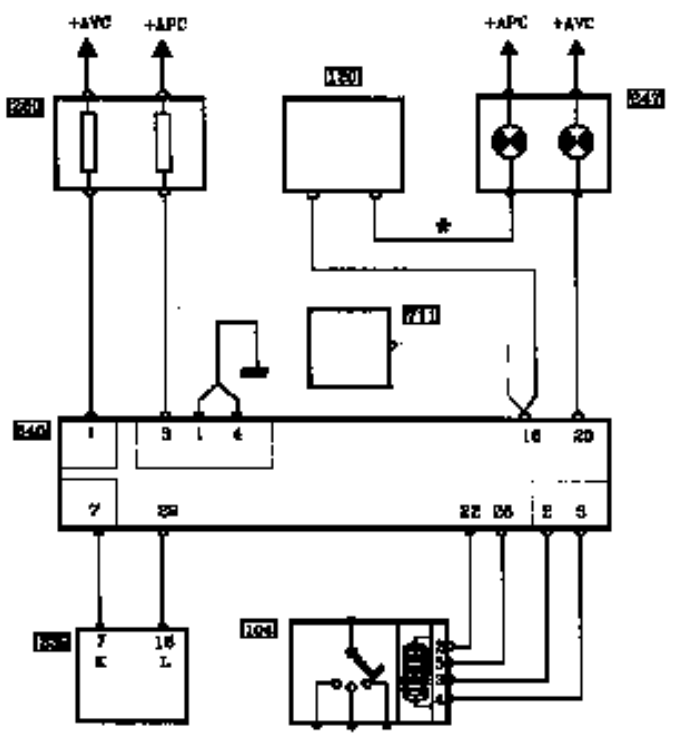
WIRING DIAGRAM

Vehicle equipped with a decoder unit (without PLIP)



15356R3

Vehicle equipped with a UCH (with PLIP)



15356R2

***** The connection may or may not be present, depending on the vehicle (see the Wiring Diagrams).

COMPONENTS KEY

104 Ignition switch
120 Injection computer
225 Diagnostic socket
247 Injection warning light and engine immobiliser tell-tale light on the instrument panel
260 Passenger compartment fuse box
503 Decoder unit
645 Passenger Compartment Control Unit (UCH)
711 Coded solenoid valve (diesel except direct injection)

FAULT FINDING - INTRODUCTION

SETTING UP DIALOGUE BETWEEN THE XR25 AND THE DECODER UNIT

- Connect the XR25 to the diagnostic socket.
- Set the ISO selector to **S8**
- Enter **D45**

2.n64

Pay attention to the key head electronic unit and antenna/transponder ring part numbers.

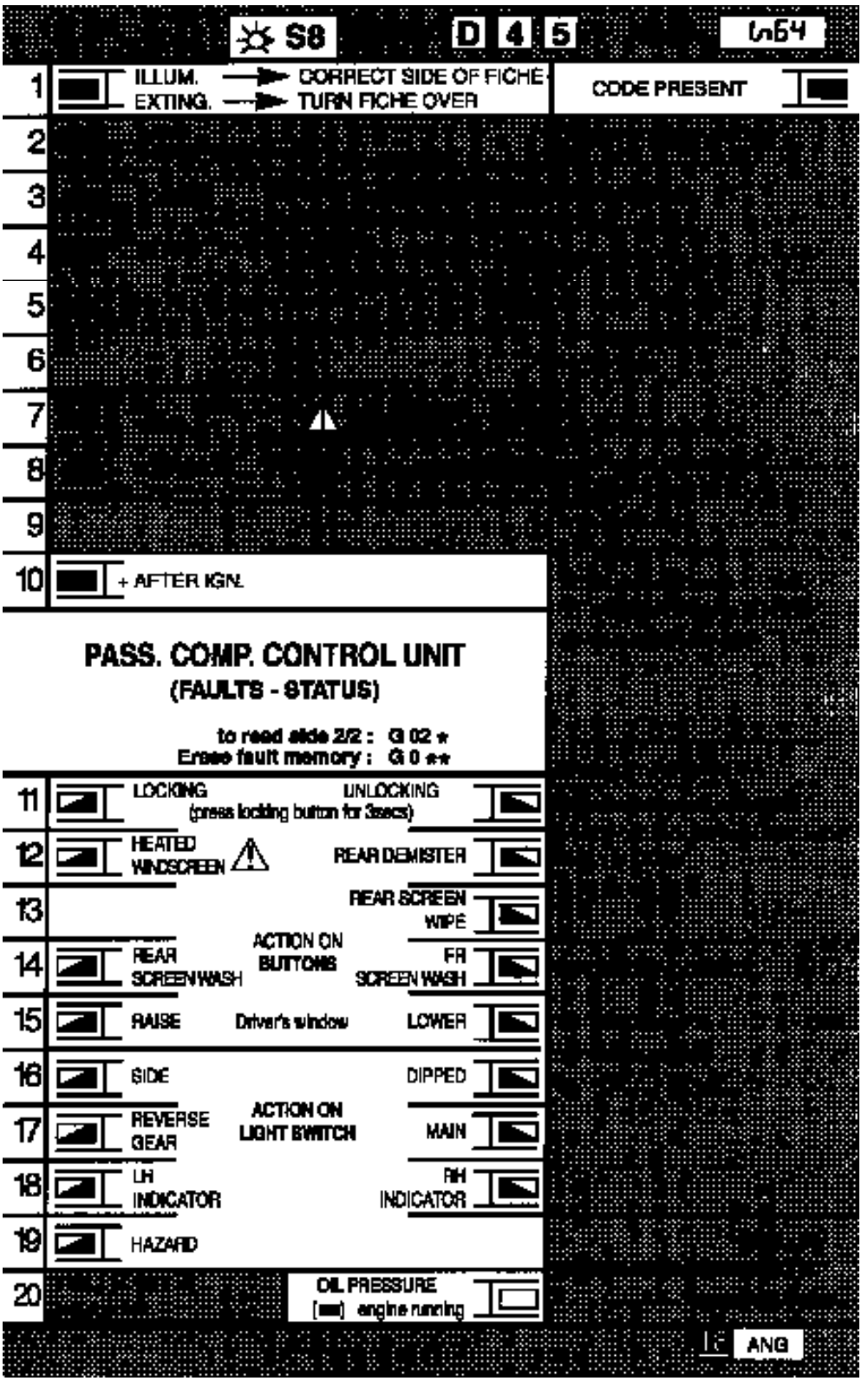
ENGINE IMMOBILISER FAULT - INJECTION FICHE

- fiche n° 27 for F7R, F3R, K7M engines - BG 2 RH side
- fiche n° 28 for E7J engines - BG 2 RH side
- fiche n° 51 for F9Q engines - BG 15 LH side

ERASING THE MEMORY

After repairing the engine immobiliser system, enter G0** on the XR25 keyboard to erase the memorised fault.

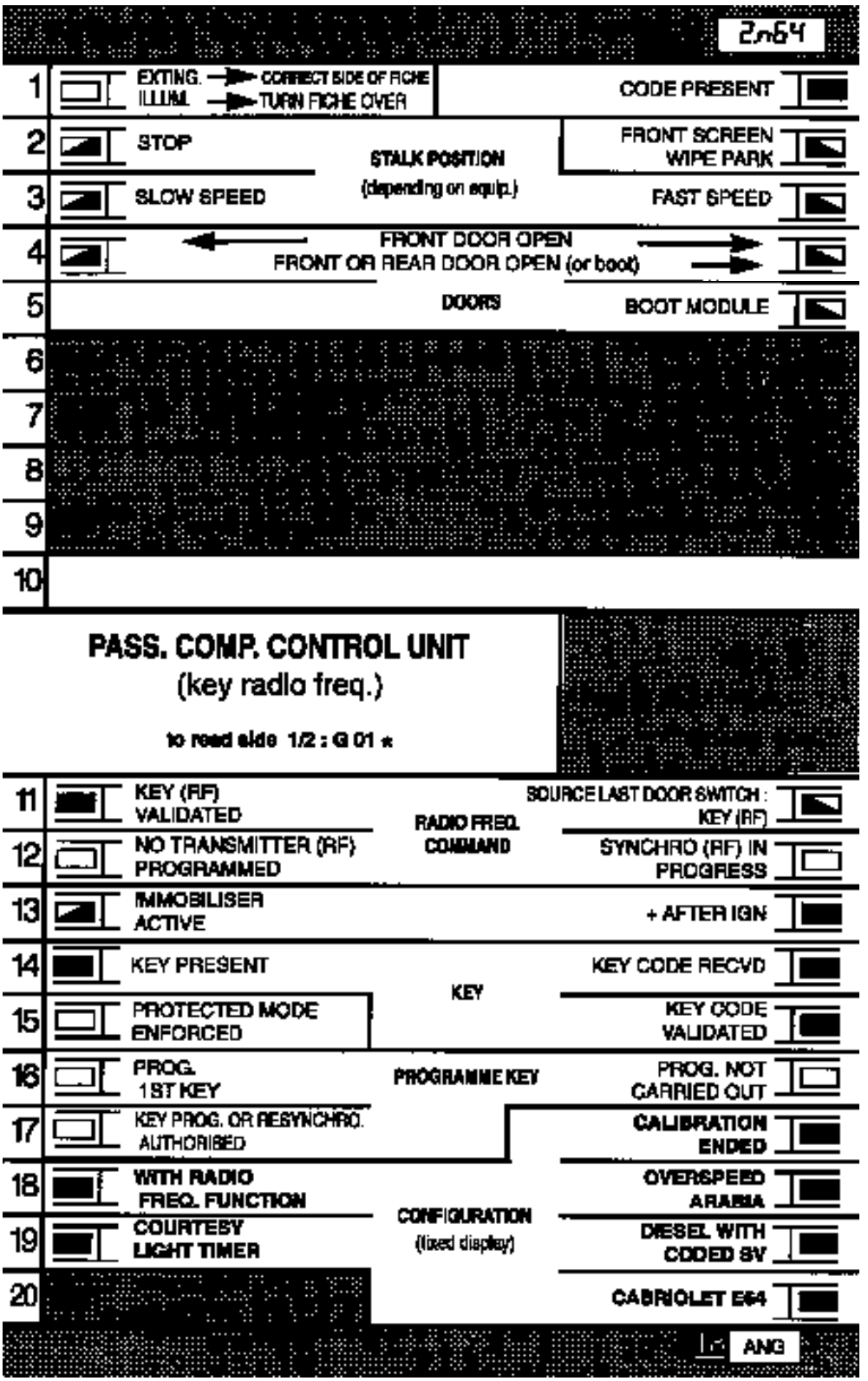
PRESENTATION OF XR25 FICHE N° 64 SIDE 1/2



FI218641

vrf6408.0

PRESENTATION OF XR25 FICHE N° 64 SIDE 2/2



FI218642

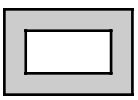
vrf6408.0

REPRESENTATION OF BARGRAPHS

Illuminates when dialogue is established with the product computer, if it remains extinguished:
- the code does not exist,
- there is a line, XR25 or computer fault.

REPRESENTATION OF FAULTS (always on coloured background)

Illuminated, indicates a fault on the product tested, the associated text defines the fault.

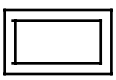
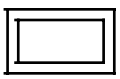


Extinguished, indicates that no fault has been detected on the product tested.

REPRESENTATION OF STATUS (always on white background)

Engine stopped, ignition on, no operator action

The status bargraphs on the fiche are represented in the condition they should be in when the engine is stopped, ignition on, no operator action.

- If on the fiche, the bargraph is shown  the XR25 should give as information 
- If on the fiche, the bargraph is shown  the XR25 should give as information 
- If on the fiche, the bargraph is shown  the XR25 should give as information

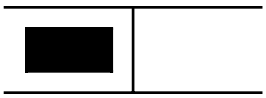
either  or 

Engine running

Extinguished when the function or condition specified on the fiche is no longer being met.

Illuminated when the function or condition specified on the fiche is being met.

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS

6 	**Bargraph 6 LH side illuminated** Fiche n° 64 DIESEL SOLENOID VALVE CLEARANCE

NOTES	None

Check that the coded solenoid valve is correctly fed (12 V and earth).

Repair the wiring.

Set the XR25 to pulse detection mode (**key G**, entered on the Vin terminal) and check for pulses on **track 16 of UCH connector PE3**.

Are there pulses?

NO	Replace the passenger compartment control unit.
YES	Replace the coded solenoid valve.

AFTER REPAIR	Erase the memorised fault by entering G0** on the XR25 keyboard. Carry out a conformity check. Check that the engine immobiliser system operates correctly.

vrf6408.0

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS

6	**Bargraph 6 RH side illuminated**	Fiche n° 64
[redacted]	CODED LINE CIRCUIT **XR25 aid:** CC.1 CO.0	

NOTES	None

Check that UCH connector PE3 is correctly connected.

Check the continuity and insulation from earth and 12V of the wiring between **track 16 of UCH connector PE3** and **injection computer track ***, depending on the engine.

Repair the wiring if necessary.

XR25 in pulse detection mode (key **G**, entered on the **Vin** terminal), and check for pulses on **track 16 of UCH connector PE3**.

Are there pulses?

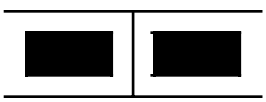
NO	Replace the passenger compartment control unit.
YES	Replace the injection computer.

Tracks * = 35 for F7R, F3R
37 for K7M
29 for E7J
59 for F9Q

AFTER REPAIR	Erase the flashing fault memory using G0**. Carry out a conformity check.

vrf6408.0

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS

6 	**Bargraphs 6 LH side and RH side illuminated** Fiche n° 64 SIGNAL CLEARANCE VIA DIESEL SOLENOID VALVE AND CODED LINE

NOTES	None

Check the condition of the wiring between:

3 track coded solenoid valve connector

- **1** → **16**
- **2** → **+ after ignition feed**
- **3** → **earth**

PE3 passenger compartment connection unit connector

and check the solenoid valve resistance values.

Repair the faulty wiring if necessary or if the resistance values are incorrect, replace the solenoid valve.

Set the XR25 to pulse detection mode (**key G**, entered on the Vin terminal) and check for pulses on **track 16 of UCH connector PE3**.

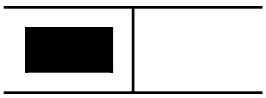
Are there pulses?

YES	Replace the coded solenoid valve.
NO	Solenoid valve connector connected and PE3 connector disconnected, check on the wiring side for 12 V on track 16 of connector PE3 when the ignition is switched on. Is there 12 V? YES — Replace the passenger compartment control unit. NO — Replace the coded solenoid valve.

AFTER REPAIR	Erase the flashing fault memory using G0**. Carry out a conformity check.

vrf6408.0

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS

7 	**Bargraph 7 LH side illuminated** Fiche n° 64 RADIO FREQUENCY KEY DESYNCHRONISED **XR25 aid:** *07 = 1.deF 2.deF

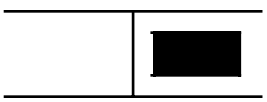
NOTES	None.

See the key resynchronisation procedure.

AFTER REPAIR	Erase the memorised fault using G0**. Switch off the ignition and check whether the engine immobiliser tell-tale light flashes.

vrf6408.0

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS

7 	**Bargraph 7 RH side illuminated** Fiche n° 64 RADIO FREQUENCY KEY NOT RECOGNISED

NOTES	None.

Can the vehicle be started using this key?

YES	The key is incorrectly coded. Replace the key.
NO	The key is incorrectly allocated. See the key allocation procedure.

AFTER REPAIR	Erase the memorised fault using G0**. Switch off the ignition and check whether the engine immobiliser tell-tale light flashes.

vrf6408.0

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS

8 	**Bargraph 8 RH side illuminated** Fiche n° 64 BATTERY / BATTERIES LOW / FLAT

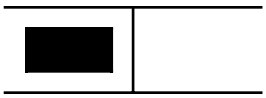
NOTES	None.

Replace the battery and if the key still does not operate, resynchronise the key.

AFTER REPAIR	Erase the memorised fault using G0**. Switch off the ignition and check whether the engine immobiliser tell-tale light flashes.

vrf6408.0

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS

9 	**Bargraph 9 LH side illuminated** Fiche n° 64 ANTENNA / TRANSPONDER RING RESPONSE **XR25 aid:** *09 = bon deF CC.0 CO.1

NOTES	None.

deF	Replace the antenna / transponder ring.
CC.0	Repair the wiring between **track 3 of UCH connector PE3 and track 4 of the antenna/transponder ring.**
CO.1	Check the condition of the wiring between **tracks 3 and 26 of connector PE3 and tracks 4 and 5 of the antenna/transponder ring**. Repair if necessary. XR25 in pulse detection mode (**key G**, entered on the **Vin** terminal), check for pulses on **track 4 of the antenna/transponder ring connector**. Are there pulses? NO — Replace the antenna / transponder ring. YES — Replace the passenger compartment control unit.

AFTER REPAIR	Erase the memorised fault using G0**. Switch off the ignition and check whether the engine immobiliser tell-tale light flashes.

vrf6408.0

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS

9 	**Bargraph 9 RH side illuminated** Fiche n° 64 KEY INTERROGATION **XR25 aid:** *39 = CC.1 CO.0

NOTES	None.

XR25 in pulse detection mode (key **G**, entered on the Vin terminal), check for pulses on **tracks 2 and 22 of UCH connector PE3** when the ignition is switched on (connectors connected).

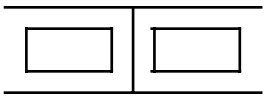
Are there pulses?

NO	Replace the passenger compartment control unit.
YES	Replace the antenna / transponder ring.

AFTER REPAIR	Erase the memorised fault using G0**. Switch off the ignition and check whether the engine immobiliser tell-tale light flashes.

vrf6408.0

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS

14, 15 	**Bargraphs 14 LH side and 15 RH side extinguished when the ignition is switched on** Fiche n° 64 KEY INTERROGATION CIRCUIT

NOTES	None.

Try with the second key.

Does a bargraph illuminate?

YES	Replace the key (see the procedure for replacing the key).

NO

Check the continuity of the wiring between:

UCH connector PE3

22 → **2**		
26 → **5**	}	**antenna/transponder ring**
3 → **4**		
2 → **3**		

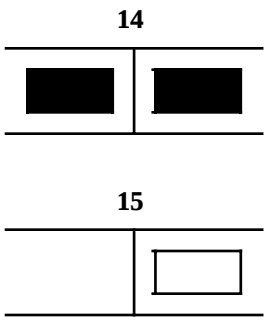
Is the wiring in good condition?

NO	Repair the faulty wiring.
YES	Check for pulses on **track 22 of UCH connector PE3** each time the ignition is switched on. Are there pulses? YES — Replace the passenger compartment control unit. YES — Replace the antenna / transponder ring.

AFTER REPAIR	Erase the memorised fault using G0**. Switch off the ignition and check whether the engine immobiliser tell-tale light flashes.

vrf6408.0

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS



Bargraphs 14 LH side and 14 RH side illuminated, 15 RH side extinguished when the ignition is switched on

Fiche n° 64

KEY INTERROGATION CIRCUIT

NOTES	None

Perhaps the key belongs to another vehicle or is not allocated to this vehicle.
See the key allocation procedure.

If the fault persists, replace the key.

AFTER REPAIR	Erase the memorised fault using G0**. Switch off the ignition and check whether the engine immobiliser tell-tale light flashes.

vrf6408.0

FAULT FINDING - CUSTOMER COMPLAINTS (petrol version)

NOTES	Only consult these customer complaints after a complete check using the XR25.

FAULT FINDING - FAULT CHARTS (petrol version or direct injection diesel)

Chart 1	WHEN THE IGNITION IS SWITCHED ON, THE INJECTION WARNING LIGHT FLASHES PERMANENTLY, REMAINS ILLUMINATED OR NEVER ILLUMINATES OR THE VEHICLE DOES NOT START (the engine immobiliser tell-tale light functions normally)

NOTES	On fiche n° 64 side 2/2, if BG 6 RH is illuminated, see the section on dealing with the bargraph.

Check the condition of the 5A fuse and the condition of the wiring between the injection computer and the fuse.
Replace the fuse and repair the wiring if necessary.

↓

Check the continuity and insulation from earth and 12V of the wiring between **track 16 of UCH connector PE3 and the injection computer track ***.
Is the wiring in good condition?

no → Repair the faulty wiring.

yes

↓

XR25 in pulse detection mode, ignition on, check for pulses on **track 16 of connector PE3**.
Are there pulses?

no → Replace the passenger compartment control unit.

yes

↓

Replace the injection computer.

Tracks * = 35 for F7R, F3R engines
37 for K7M engines
29 for E7J engines
59 for F9Q engines

AFTER REPAIR	Carry out a conformity check. Check that the engine immobiliser system operates correctly. Erase the faults using G0**.

vrf6408.0

FAULT FINDING - FAULT CHARTS (petrol version or direct injection diesel)

Chart 2	WHEN DRIVING (deceleration) AND AT IDLE SPEED, THE INJECTION WARNING LIGHT FLASHES PERMANENTLY

NOTES	None

Connect the XR25. Depending on the engine
- fiche 27
- fiche 28
- fiche 51
Is BG 2 RH side or BG 15 RH side illuminated?

no → See the section on dealing with the bargraph.

yes ↓

Check the continuity and insulation from earth and 12V of the wiring between **track 16 of UCH connector PE3 and track * on the injection computer.**
Is the wiring in good condition?

no → Repair the faulty wiring.

yes ↓

XR25 in pulse detection mode (key G, entered on the Vin terminal), check for pulses on **track 16 of connector PE3**.
Are there pulses?

no → Replace the passenger compartment control unit.

yes ↓

Replace the injection computer.

Tracks * = 35 for F7R, F3R engines
37 for K7M engines
29 for E7J engines
59 for F9Q engines

AFTER REPAIR	Carry out a conformity check. Check that the engine immobiliser system operates correctly.

vrf6408.0

FAULT FINDING - FAULT CHARTS (petrol version or direct injection diesel)

Chart 3	WHEN THE IGNITION IS SWITCHED ON THE ENGINE IMMOBILISER TELL-TALE LIGHT REMAINS ILLUMINATED OR NEVER ILLUMINATES

NOTES	None

Check the condition of the + before ignition feed fuse.
Replace it if necessary.

Check the condition of the wiring between **track 20 of UCH connector PE3** and the instrument panel.
Is the wiring in good condition?

no → Repair the faulty wiring.

yes

- If the engine immobiliser tell-tale light is illuminated, disconnect connector PE3 and check that the tell-tale light extinguishes.
- If the engine immobiliser tell-tale light is extinguished, reconnect **track 20 of connector PE3 to earth** and check whether the tell-tale light illuminates.

Does the tell-tale light operate correctly during the tests?

no → Replace the bulb for the tell-tale light.
If the fault persists, replace the instrument panel.

yes

Replace the passenger compartment control unit.

AFTER REPAIR	Carry out a conformity check. Check that the engine immobiliser system operates correctly.

vrf6408.0

FAULT FINDING - FAULT CHARTS

Chart 4 — ENGINE IMMOBILISER TELL-TALE LIGHT FLASHES PERMANENTLY

NOTES: None

Are **bargraphs 14 LH side, 14 RH side and 15 LH side** illuminated when the ignition is switched on?

- no → See the section on dealing with bargraphs.
- yes ↓

Is the antenna / transponder ring correctly secured to the ignition switch?

- no → Reposition the ring in its housing.
- yes ↓

Check the continuity and insulation of the wiring between:

UCH connector PE3	**22** →	**2**	**antenna / transponder ring**
	26 →	**5**	
	3 →	**4**	
	2 →	**3**	

Is the wiring in good condition?

- no → Repair the faulty wiring.
- yes ↓

Replace the passenger compartment control unit.

AFTER REPAIR

Carry out a conformity check.
Check that the engine immobiliser system operates correctly.
Erase the faults using G0**.

vrf6408.0

FAULT FINDING - FAULT CHARTS (all versions)

Chart 5	RADIO FREQUENCY PLIP DOES NOT OPERATE (doors + luggage compartment will not lock or unlock)

NOTES	If the vehicle does not start, check the engine immobiliser as the radio frequency does not manage this.

Check the condition of **20 A** fuse **FC** located in the passenger compartment control unit. Replace it if necessary.

Try to start the vehicle using the second key. Does the vehicle start?

- no → The key is not allocated or is an old key. See the key allocation procedure.
- yes ↓

Press on the key and check whether **BG 11 LH side** illuminates. Does the bargraph illuminate?

- no → Check the condition of the batteries or replace the key if necessary.
- yes ↓

Press on the key and check whether **BG 7 LH side** illuminates. Does the bargraph illuminate?

- yes → The key is desynchronised. See the resynchronisation procedure.
- no ↓

Replace the passenger compartment control unit.

NOTE : If the second key is not available, use the key from another Mégane and check whether BG 7 RH side illuminates.
If it illuminates, there is a fault with the key.
If it does not illuminate, replace the passenger compartment control unit.

AFTER REPAIR	Carry out a conformity check. Check that the engine immobiliser system operates correctly. Erase the faults using G0**.

vrf6408.0

FAULT FINDING - CUSTOMER COMPLAINTS (diesel version)

NOTES	Only consult these customer complaints after a complete check using the XR25.

FAULT FINDING - FAULT CHARTS

Chart 1	WHEN THE IGNITION IS SWITCHED ON, THE ENGINE IMMOBILISER TELL-TALE LIGHT ILLUMINATES FOR 3 SECONDS, EXTINGUISHES THEN REMAINS ILLUMINATED UNTIL THE IGNITION IS SWITCHED OFF

NOTES	BG 6 LH side should be extinguished

Check that the coded solenoid valve is correctly connected.

track 1 → **16 connector PE3**
track 2 → **+ after ignition feed**
track 3 → **diesel fuel pump**

Is the wiring in good condition?

no → Repair the faulty wiring.

yes ↓

Check for pulses on **track 16 of UCH connector PE3**, ignition on.
Are there pulses?

no → Replace the passenger compartment control unit.

yes ↓

Replace the coded solenoid valve.

AFTER REPAIR	Carry out a conformity check. Check that the engine immobiliser system operates correctly. Erase the faults using G0**.

vrf6408.0

FAULT FINDING - FAULT CHARTS

Chart 2	WHEN THE IGNITION IS SWITCHED ON, THE ENGINE IMMOBILISER TELL-TALE LIGHT ILLUMINATES FOR 3 SECONDS, THEN EXTINGUISHES, BUT THE VEHICLE CANNOT BE STARTED

NOTES	BG 6 LH side should be extinguished

Carry out a mechanical check of the coded solenoid valve.
- Ignition off, enter **G23*** on the XR25.
- Switch the ignition on again. You should be able to hear the valve open and close several times.

Does the valve open and close?

no → Replace the solenoid valve.

yes ↓

The coded solenoid valve is not at fault. Consult the fault finding corresponding to diesel engines.

AFTER REPAIR	Carry out a conformity check. Check that the engine immobiliser system operates correctly. Erase the faults using G0**.

vrf6408.0

FAULT FINDING - FAULT CHARTS

Chart 3	THE ENGINE IMMOBILISER TELL-TALE LIGHT REMAINS PERMANENTLY ILLUMINATED OR PERMANENTLY EXTINGUISHED

NOTES	None

Check the condition of the + before ignition feed fuse.
Replace it if necessary.

Check the condition of the wiring between **track 20 of UCH connector PE3** and the instrument panel.
Is the wiring in good condition?

no → Repair the faulty wiring.

yes

- If the engine immobiliser tell-tale light is illuminated, disconnect connector PE3 and check that the tell-tale light extinguishes.
- If the engine immobiliser tell-tale light is extinguished, reconnect **track 20 of connector PE3 to earth** and check whether the tell-tale light illuminates.

Does the tell-tale light operate correctly during these tests?

no → Replace the bulb for the tell-tale light.
If the fault persists, replace the instrument panel.

yes

Replace the passenger compartment control unit.

AFTER REPAIR	Carry out a conformity check. Check that the engine immobiliser system operates correctly. Erase the faults using G0**.

vrf6408.0

FAULT FINDING - FAULT CHARTS

Chart 4	ENGINE IMMOBILISER TELL-TALE LIGHT FLASHES PERMANENTLY

NOTES	None

Are **bargraphs 14 LH, 14 RH and 15 LH side** illuminated when the ignition is switched on?

no → See the section on dealing with bargraphs.

yes ↓

Is the antenna / transponder ring correctly secured to the ignition switch?

no → Reposition the ring in its housing.

yes ↓

Check the continuity and insulation of the wiring between:

UCH connector PE3	**22** → **2**	**antenna/ transponder ring**	
	26 → **5**		
	3 → **4**		
	2 → **3**		

Is the wiring in good condition?

no → Repair the faulty wiring.

yes ↓

Replace the passenger compartment control unit.

AFTER REPAIR	Carry out a conformity check. Check that the engine immobiliser system operates correctly. Erase the faults using G0**.

vrf6408.0

FAULT FINDING - FAULT CHARTS (all versions)

Chart 5	RADIO FREQUENCY PLIP DOES NOT OPERATE (doors + luggage compartment will not lock or unlock)

NOTES	If the vehicle does not start, check the engine immobiliser as the radio frequency does not manage this.

Check the condition of the **20 A FC fuse** located in the passenger compartment control unit.
Replace it if necessary.

↓

Try to start the vehicle using the second key. Does the vehicle start?

→ no → The key is not allocated or is an old key. See the key allocation procedure.

↓ yes

Press on the key and check whether **BG 11 LH side** illuminates. Does the bargraph illuminate?

→ no → Check the condition of the batteries or replace the key if necessary.

↓ yes

Press on the key and check whether **BG 7 LH side** illuminates. Does the bargraph illuminate?

→ yes → The key is desynchronised. See the resynchronisation procedure.

↓ no

Replace the passenger compartment control unit.

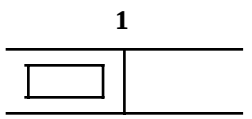
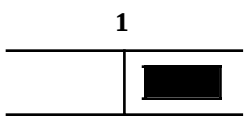
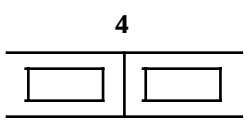
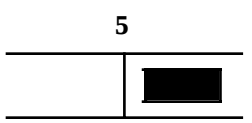
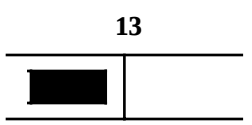
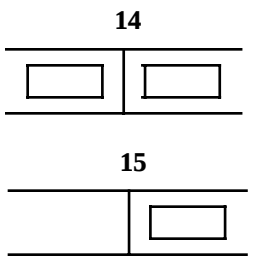
NOTE : If the second key is not available, use the key from another Mégane and check whether BG 7 RH side illuminates.
If it illuminates, there is a fault with the key.
If it does not illuminate, replace the passenger compartment control unit.

AFTER REPAIR	Carry out a conformity check. Check that the engine immobiliser system operates correctly. Erase the faults using G0**.

vrf6408.0

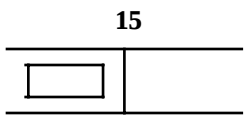
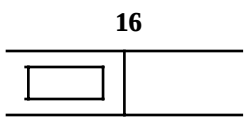
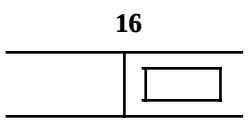
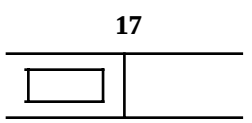
FAULT FINDING - CHECKING CONFORMITY

NOTES	If a fault bargraph illuminates, refer to the corresponding fault chart.

Order of operations	Function to be checked	Action	Bargraph	Display and notes
1	XR25 dialogue	D 45		**2.n64**
2				- Extinguished : fiche on the correct side - Illuminated : turn the fiche over
3				Code present
4	Front door open Front or rear door (luggage compartment) open			Illuminated if doors are open
5	Luggage compartment module			
6	Engine immobiliser status			Illuminated if engine immobiliser is active
7	Receipt of key present, key code received and key code valid information			Illuminated when the key is present, key code received and recognised

FAULT FINDING - CHECKING CONFORMITY

NOTES	If a fault bargraph illuminates, refer to the corresponding fault chart.

Order of operations	Function to be checked	Action	Bargraph	Display and notes
8	Forced protection mode			Illuminated only after command G04* entered on the XR25 (ignition off, engine immobiliser active).
9	Receipt of 1st key programming information			Illuminated if 1st key programming carried out.
10	Programming not carried out			Illuminated if programming not carried out.
11	Programming or key reallocation authorised			Illuminated if programming or reallocation of keys in progress.

ADDITIONAL CHECKS

LIST OF VARIOUS #

 # 09 Antenna / transponder ring feed fault
 # 35 Key status details valid
 # 38 Vehicle locked automatically
 # 58 Number of keys programmed (4 maximum)
 # 70 Number of radio frequency keys memorised
 # 77 Key presented is not blank

COMMAND MODES G--*

To use this function, enter G on the XR25 keyboard, then the number of the chosen command followed by a star.

01 Coded solenoid valve test mode.

02 Engine immobiliser tell-tale light flashing.

03 Engine immobiliser tell-tale light illuminated.

04 Forced protection mode: activates the engine immobiliser function even if the key is correct, which allows starting prevention to be checked. Bargraph 9 LH side should illuminate.
This command must be entered when the ignition is switched off even though the engine immobiliser is active.
Important: switching off the ignition cancels this command.

13 End of fault finding.

25 Configuration :
- **G 25 * 1 *** = petrol or direct injection diesel configuration .
- **G 25 * 2 *** = diesel with coded solenoid valve configuration.

41 Enter after sales code

47 *0* De-configure courtesy lights
1 Configure courtesy lights

50 *0* De-configure automatic door locking
1 Configure automatic door locking

55 *0* De-configure cabriolet
1 Configure cabriolet

57 *0* De-configure overspeed warning (Arabia)
1 Configure overspeed warning (Arabia)

64 Authorisation of blank key / blank decoder

65 Prohibition of blank key / blank decoder

70 Reading of Part Number

80 Abandon key reallocation mode

81 Validate key reallocation mode

FAULT FINDING - INTRODUCTION

SETTING UP DIALOGUE BETWEEN THE XR25 AND THE DECODER UNIT

- Connect the XR25 to the diagnostic socket.
- Set the ISO selector to **S8**
- Enter **D38**

2.cle

Pay attention to the key head electronic unit and antenna/ transponder ring part numbers.

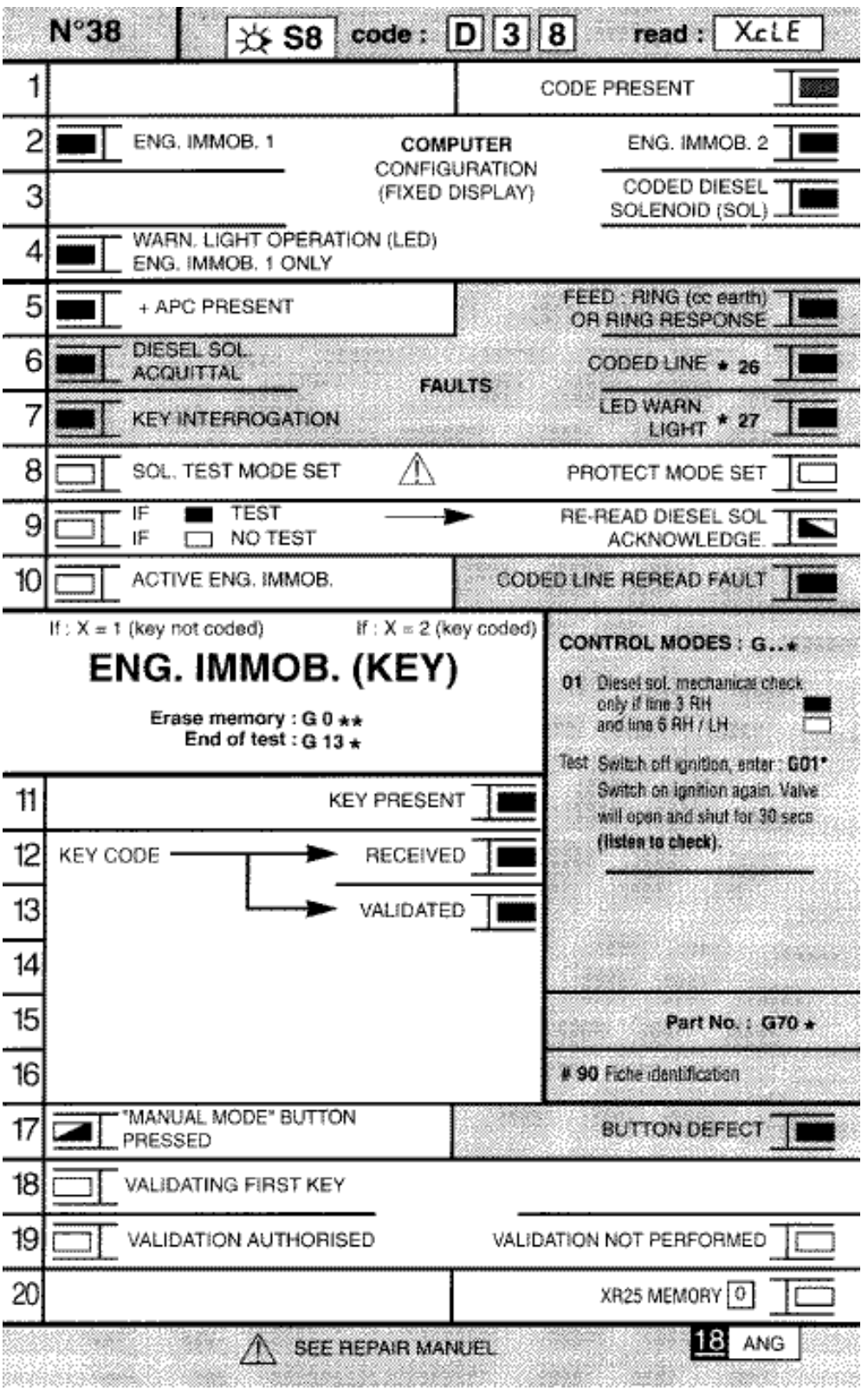
ENGINE IMMOBILISER FAULT - INJECTION FICHE

- fiche n° 27 for F7R, F3R, K7M engines - BG 2 RH side
- fiche n° 28 for E7J engines - BG 2 RH side
- fiche n° 51 for F9Q engines - BG 15 LH side

ERASING THE MEMORY

After repairing the engine immobiliser system, enter G0** on the XR25 keyboard to erase the memorised fault.

PRESENTATION OF XR25 FICHE N° 38



FI21838

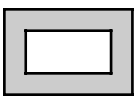
v6408.0

REPRESENTATION OF BARGRAPHS

Illuminates when dialogue is established with the product computer, if it remains extinguished:
- the code does not exist,
- there is a line, XR25 or computer fault.

REPRESENTATION OF FAULTS (always on coloured background)

Illuminated, indicates a fault on the product tested, the associated text defines the fault.

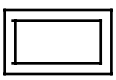
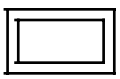


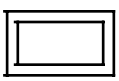
Extinguished, indicates that no fault is detected on the product tested.

REPRESENTATION OF STATUS (always on white background)

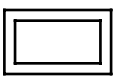
Engine stopped, ignition on, no operator action

The status bargraphs on the fiche are represented in the condition they should be in when the engine is stopped, the ignition on and there is no operator action.

- If on the fiche the bargraph is shown  the XR25 should give as information 
- If on the fiche the bargraph is shown  the XR25 should give as information 
- If on the fiche the bargraph is shown  the XR25 should give as information

either  or 

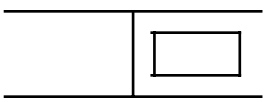
Engine running



Extinguished when the function or condition specified on the fiche is no longer being met.

Illuminated when the function or condition specified on the fiche is being met.

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS

3 	**Bargraph 3 RH side** Fiche n° 38 DECODER UNIT CONFIGURATION

NOTES	BG 3 RH side extinguished : petrol or diesel injection configuration BG 3 RH side illuminated : diesel coded solenoid valve configuration

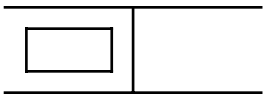
Reconfigure the decoder unit correctly using the XR25.

Command **G22* 1* injection**
2* diesel coded solenoid valve

AFTER REPAIR	Check that the configuration for the decoder unit is correct.

v6408.0

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS

5 	**Bargraph 5 LH side remains extinguished, ignition on** Fiche n° 38 + AFTER IGNITION FEED CIRCUIT **XR25 aid:** no + after ignition feed

NOTES	Check the condition of the battery

Check the condition of the wiring between **track 7 of the decoder unit and the + after ignition feed fuse**.
Repair if necessary.

Ignition on, check for **12V** on **track 7 of the decoder unit.**
Is there 12 V?

NO	See the fault finding for the relay fuse unit.
YES	Replace the decoder unit.

AFTER REPAIR	Erase the memorised fault by entering G0** on the XR25 keyboard. Carry out a conformity check. Check that the engine immobiliser system operates correctly.

v6408.0

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS

5	**Bargraph 5 RH side illuminated** Fiche n° 38 ANTENNA / TRANSPONDER RING RESPONSE **XR25 aid:** *25 : deF CC.0 CO.1

NOTES	None.

deF	Replace the antenna / transponder ring.

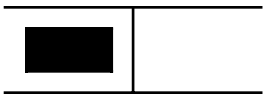
CC.0	Repair the wiring between **track 1 of the decoder unit and track 4 of the antenna/transponder ring**.

CO.1	Check the condition of the wiring between: **decoder unit** { **1** → **4**, **14** → **5** } **antenna/transponder ring** Repair if necessary. Set the XR25 to pulse detection mode (**key G**, entered on the **Vin** terminal) and check for pulses on **track 4 on the antenna/transponder ring** (connectors connected). Are there pulses? YES Replace the decoder unit. NO Replace the antenna / transponder ring.

AFTER REPAIR	Erase the memorised fault by entering G0** on the XR25 keyboard. Carry out a conformity check. Check that the engine immobiliser system operates correctly.

v6408.0

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS

6 	**Bargraph 6 LH side illuminated** Fiche n° 38 DIESEL SOLENOID VALVE CLEARANCE **XR25 aid:** *6 = bon CO.1 CC.0 deF

NOTES	None.

Check the condition of the wiring between **track 4** of the decoder unit and the coded solenoid valve. Repair the faulty wiring.
Check that the solenoid valve is correctly fed (12 V and earth). Repair.
Set the XR25 to pulse detection mode (**key G**, entered on the **Vin** terminal) and check for pulses on **track 4 of the decoder unit** (test with the decoder unit and coded solenoid valve connectors connected). Ignition on, if there are no pulses, replace the decoder unit.
Switch the ignition on for more than 30 seconds, then switch the ignition off and wait until the engine immobiliser tell-tale light flashes (engine immobiliser active). Switch the ignition on again and check whether BG 9 RH side is illuminated. Is BG 9 RH side illuminated?

YES	Replace the decoder unit if the vehicle will not start again.
NO	Replace the coded solenoid valve.

AFTER REPAIR	Erase the memorised fault by entering G0** on the XR25 keyboard. Carry out a conformity check. Check that the engine immobiliser system operates correctly.

v6408.0

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS

6 - 10	**Bargraphs 6 RH side and/or 10 RH side illuminated** Fiche n° 38 CODED LINE CIRCUIT **XR25 aid:** *26 = CC.1 CO.0

NOTES	If BG 2 RH side is illuminated on injection fiche n° 28, deal with BG 2 RH side If BG 2 RH side is illuminated on injection fiche n° 27, deal with BG 2 RH side If BG 15 LH side is illuminated on diesel injection fiche n° 51, deal with BG 15 LH side.

Check the continuity and insulation from earth and 12 V of the wiring between **track 4 of the decoder unit and injection computer track ***, depending on engines used.

Repair the wiring if necessary.

With the XR25 in pulse detection mode(key **G**, entered on the Vin terminal), ignition on, check for pulses on **track 4 of the decoder unit**.

Are there pulses?

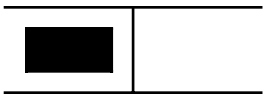
NO	Replace the decoder unit.
YES	Replace the injection computer.

Tracks * = 35 for F7R, F3R
37 for K7M
29 for E7J
59 for F9Q

AFTER REPAIR	Erase the flashing fault memory using G0**. Carry out a conformity check.

v6408.0

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS

7 	**Bargraph 7 LH side illuminated** Fiche n° 38 KEY INTERROGATION CIRCUIT (CC) **XR25 aid:** *07 = CO CC.1

NOTES	None.

Check the condition of the wiring between:

decoder unit { **10** → **3**, **17** → **2** } **antenna/transponder ring**

Repair the faulty wiring.

With the XR25 in pulse detection mode(key **G**, entered on the **Vin** terminal), check for pulses on **tracks 10 and 17 of the decoder unit** when the ignition is switched on (decoder and ring connectors connected).

Are there pulses?

NO	Replace the decoder unit.
YES	Replace the antenna / transponder ring.

AFTER REPAIR	Erase the flashing fault memory using G0**. Switch off the ignition and check whether the engine immobiliser tell-tale light is flashing.

v6408.0

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS

11-12-13	**Bargraphs 11, 12, 13 RH side extinguished when the ignition is switched on** Fiche n° 38 KEY INTERROGATION CIRCUIT **XR25 aid**: *09 = bon / CC.1 CO.0

NOTES	If BG 5 RH side is illuminated, deal with BG 5 RH side. If BG 7LH side is illuminated, deal with BG 7 LH side. # 09 = antenna / transponder ring feed fault. Wait until the engine immobiliser tell-tale light flashes before carrying out another test.

 # 09 = bon

Check the continuity and insulation from earth and 12 V of the wiring between:

decoder unit { **17** → **2**; **14** → **5**; **1** → **4**; **10** → **3** } **antenna/transponder ring**

Repair the faulty wiring.

If the fault persists, try with the 2nd key. Does a bargraph illuminate?

NO Replace the decoder unit.

YES Replace the key (see the procedure for replacing the key).

 # 09 = CC.1 or CO.0

Check the condition of the wiring between **track 17 of the decoder unit and track 2 on the antenna/transponder ring**.

Repair the faulty wiring if necessary.

With the XR25 in pulse detection mode(**key G**, entered on the **Vin** terminal) (ring disconnected), check for pulses on track **17 of the decoder unit**.
Are there pulses each time the ignition is switched on?

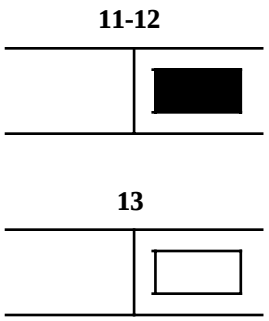
NO Replace the decoder unit.

YES Replace the antenna / transponder ring.

AFTER REPAIR	Erase the memorised fault by entering G0** on the XR25 keyboard. Carry out a conformity check. Check that the engine immobiliser system operates correctly.

v6408.0

FAULT FINDING - INTERPRETATION OF XR25 BARGRAPHS



Bargraphs 11 RH side and 12 RH side illuminated, 13 RH side extinguished when the ignition is switched on

Fiche n° 38

KEY INTERROGATION CIRCUIT

XR25 aid: # 33 = 00 or 01 or 10

NOTES

If BG 5 RH side is illuminated, deal with BG 5 RH side.
If BG 7 LH side is illuminated, deal with BG 7 LH side.
09 = antenna / transponder ring feed fault.
Wait until the engine immobiliser tell-tale light flashes before carrying out another test.

 # 33 = 00

This key belongs to another vehicle or it has not been allocated to this vehicle.

See the key allocation procedure.

 # 33 = 01

The key used is not allocated to the vehicle.

See the key allocation procedure.

 # 33 = 10

Change the key.

AFTER REPAIR

Erase the memorised fault by entering G0** on the XR25 keyboard.
Carry out a conformity check.
Check that the engine immobiliser system operates correctly.

v6408.0

FAULT FINDING - CUSTOMER COMPLAINTS (petrol version)

NOTES	Only consult these customer complaints after a complete check using the XR25.

FAULT FINDING - FAULT CHARTS (petrol or direct injection diesel version)

Chart 1	WHEN THE IGNITION IS SWITCHED ON, THE INJECTION WARNING LIGHT FLASHES PERMANENTLY, REMAINS ILLUMINATED OR NEVER ILLUMINATES OR THE VEHICLE DOES NOT START (engine immobiliser tell-tale light functions normally)

NOTES	If bargraph 6 RH and 10 RH are illuminated, refer to how to deal with the bargraphs. Check that bargraph 19 RH is extinguished and that there are no problems with the injection system.

Check the condition of the 5A fuse and the condition of the wiring between the injection computer and the fuse.
Replace the fuse and repair the wiring if necessary.

↓

Check the continuity and insulation from earth and 12V of the wiring between **track 4 of the decoder unit and track * of the injection computer**.
Is the wiring in good condition?

no → Repair the faulty wiring.

yes ↓

XR25 in pulse detection mode, ignition on, check for pulses on track **4 of the decoder unit**.
Are there pulses?

no → Change the decoder unit.

yes ↓

Change the injection computer.

Tracks * = 35 for F3P, F3R engines
37 for K7M engines
29 for E7J engines
59 for F9Q engines

AFTER REPAIR	Carry out a conformity check. Check that the engine immobiliser system operates correctly. Erase the faults using G0**.

v6408.0

FAULT FINDING - FAULT CHARTS (petrol or direct injection diesel version)

Chart 2	WHEN DRIVING (deceleration) AND AT IDLE SPEED, THE INJECTION WARNING LIGHT FLASHES PERMANENTLY

NOTES	None.

Connect the XR25. Depending on the engines used
- fiche 27
- fiche 28
- fiche 51
Is BG 2 RH side or BG 15 RH side illuminated?

yes → See the section on dealing with the bargraph.

no

Check the continuity and insulation from earth and 12V of the wiring between track **4 of the decoder unit and track * of the injection computer.**
Is the wiring in good condition?

no → Repair the faulty wiring.

yes

With the XR25 in pulse detection mode (**key G**, entered on the **Vin** terminal), check for pulses on **track 4 of the decoder unit**.
Are there pulses?

no → Replace the decoder unit.

yes

Replace the injection computer.

Tracks * = 35 for F3P, F3R engines
37 for K7M engines
29 for E7J engines
59 for F9Q engines

AFTER REPAIR	Carry out a conformity check. Check that the engine immobiliser system operates correctly.

v6408.0

FAULT FINDING - FAULT CHARTS (petrol or direct injection diesel version)

Chart 3	WHEN THE IGNITION IS SWITCHED ON THE ENGINE IMMOBILISER TELL-TALE LIGHT REMAINS ILLUMINATED OR NEVER ILLUMINATES

NOTES	Check that the configuration for the decoder unit is correct. Injection configuration : bargraph 3 RH extinguished.

Check the condition of the + before ignition feed fuse.
Replace it if necessary.

↓

Check the condition of the wiring between **track 5 of the decoder unit** and the instrument panel.
Is the wiring in good condition?

no → Repair the faulty wiring.

yes

↓

- If the engine immobiliser tell-tale light is illuminated, disconnect the decoder connector and check whether the tell-tale light extinguishes.
- If the engine immobiliser tell-tale light is extinguished, reconnect track **5 of the decoder unit to earth** and check whether the tell-tale light illuminates.

Does the tell-tale light operate correctly during these tests?

no → Replace the bulb for the tell-tale light.
If the fault persists, replace the instrument panel.

yes

↓

Replace the decoder unit.

AFTER REPAIR	Carry out a conformity check. Check that the engine immobiliser system operates correctly.

v6408.0

FAULT FINDING - FAULT CHARTS (petrol or diesel injection version)

Chart 4	THE ENGINE IMMOBILISER TELL-TALE LIGHT FLASHES PERMANENTLY
NOTES	None

Are bargraphs 11 RH side, 12 RH side and 13 RH side illuminated when the ignition is switched on?

no → See the section on dealing with bargraphs.

yes

Is the antenna / transponder ring correctly secured to the ignition switch?

no → Reposition the ring in its housing.

yes

Check the continuity and insulation of the wiring between:

decoder unit	**17** → **2**	**antenna / transponder ring**	
	10 → **5**		
	1 → **4**		
	14 → **3**		

Is the wiring in good condition?

no → Repair the faulty wiring.

yes

Replace the decoder unit.

AFTER REPAIR	Carry out a conformity check. Check that the engine immobiliser system operates correctly. Erase the faults using G0**.

v6408.0

FAULT FINDING - CUSTOMER COMPLAINTS (diesel version)

NOTES	Only consult these customer complaints after a complete check using the XR25.

FAULT FINDING - FAULT CHARTS

Chart 1	WHEN THE IGNITION IS SWITCHED ON, THE ENGINE IMMOBILISER TELL-TALE LIGHT ILLUMINATES FOR 3 SECONDS, EXTINGUISHES, THEN REMAINS ILLUMINATED UNTIL THE IGNITION IS SWITCHED OFF

NOTES	BG 6 LH side, 6 RH side and 10 RH side should be extinguished.

Check that the coded solenoid valve is correctly connected.

track 1 → **4 of the decoder unit**
track 2 → **+ after ignition feed**
track 3 → **earth**

Is the wiring in good condition?

no → Repair the faulty wiring.

yes ↓

Check for pulses on track **4 of the decoder unit**, ignition on.
Are there pulses?

no → Replace the decoder unit.

yes ↓

Replace the coded solenoid valve.

AFTER REPAIR	Carry out a conformity check. Check that the engine immobiliser system operates correctly. Erase the faults using G0**.

v6408.0

FAULT FINDING - FAULT CHARTS

Chart 2	WHEN THE IGNITION IS SWITCHED ON, THE ENGINE IMMOBILISER TELL-TALE LIGHT ILLUMINATES FOR 3 SECONDS, THEN EXTINGUISHES, BUT THE VEHICLE DOES NOT START

NOTES	BG 6 LH side, 6 RH, 10 RH and 19 RH should be extinguished

Carry out a mechanical check of the coded solenoid valve.
- Ignition off, enter **G01*** on the XR25.
- Switch the ignition on again. You should hear the valve open and close several times.Does the valve open and close ?

no → Replace the solenoid valve.

yes ↓

The coded solenoid valve is not faulty. Consult the fault finding corresponding to diesel engines.

AFTER REPAIR	Carry out a conformity check. Check that the engine immobiliser system operates correctly. Erase the faults using G0**.

v6408.0

FAULT FINDING - FAULT CHARTS

Chart 3	THE ENGINE IMMOBILISER TELL-TALE LIGHT REMAINS PERMANENTLY ILLUMINATED OR REMAINS PERMANENTLY EXTINGUISHED

NOTES	Bargraph 19 RH side should be extinguished.

Check the condition of the + before ignition feed fuse.
Replace it if necessary.

Check the condition of the wiring between **track 5 of the decoder unit** and the instrument panel.
Is the wiring in good condition?

no → Repair the faulty wiring.

yes

- If the engine immobiliser tell-tale light is illuminated, disconnect the decoder unit and check whether the tell-tale light extinguishes.
- If the engine immobiliser tell-tale light is extinguished, reconnect track **5** of the **decoder unit to earth** and check whether the tell-tale light illuminates.

Does the tell-tale light operate correctly during these tests?

no → Replace the bulb for the tell-tale light.
If the fault persists, replace the instrument panel.

yes

Replace the decoder unit.

AFTER REPAIR	Carry out a conformity check. Check that the engine immobiliser system operates correctly. Erase the faults using G0**.

v6408.0

FAULT FINDING - FAULT CHARTS

Chart 4 — THE ENGINE IMMOBILISER TELL-TALE LIGHT FLASHES PERMANENTLY

NOTES — None

Are bargraphs 11 RH side, 12 RH side and 13 RH side illuminated when the ignition is switched on?

- no → See the section on dealing with bargraphs.
- yes ↓

Is the antenna / transponder ring correctly secured to the ignition switch?

- no → Reposition the ring in its housing.
- yes ↓

Check the continuity and insulation of the wiring between:

decoder unit	**17** → **2**	**antenna / transponder ring**	
	14 → **5**		
	1 → **4**		
	10 → **3**		

Is the wiring in good condition?

- no → Repair the faulty wiring.
- yes ↓

Replace the decoder unit.

AFTER REPAIR

Carry out a conformity check.
Check that the engine immobiliser system operates correctly.
Erase the faults using G0**.

v6408.0

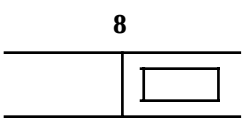
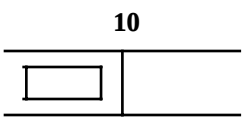
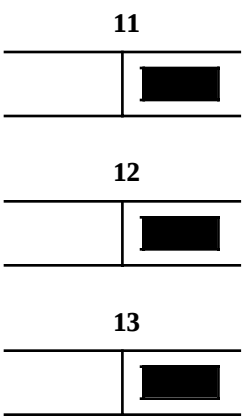
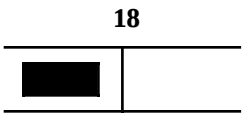
FAULT FINDING - CHECKING CONFORMITY

NOTES	If a fault bargraph illuminates, refer to the corresponding fault chart.

Order of operations	Function to be checked	Action	Bargraph	Display and notes
1	XR25 dialogue	D38 (selector on S8)		**X.cle**
2			**1** [redacted]	Code present
3	Decoder unit conformity	G70*		**X X X** Parts Department number displayed in 2 sequences.
4	Interpretation of normally illuminated bargraphs		**2** [redacted] **2** [redacted]	Engine immobiliser 1 Engine immobiliser 2
5	Computer configured for Petrol / Diesel		**3** [redacted]	Illuminated if configured for diesel vehicle with coded solenoid valve. Extinguished if configured for petrol or direct injection diesel vehicle. Command: - G22*1* petrol configuration - G22*2* diesel configuration

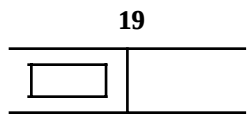
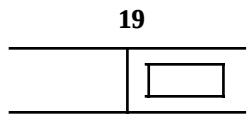
FAULT FINDING - CHECKING CONFORMITY

NOTES	If a fault bargraph illuminates, refer to the corresponding fault chart.

Order of operations	Function to be checked	Action	Bargraph	Display and notes
6	Forced protection mode			Illuminated only after entering command G04* on the XR25 (ignition off, engine immobiliser active). Impossible to start the vehicle while BG 8 LH side is illuminated.
7	Engine immobiliser status			Allumé fixe si antidémarrage actif : couper le contact et attendre environ 10 secondes pour que BG 10G soit allumé fixe. Eteint si antidémarrage inactif.
8	Receipt of key present, key code received, key code valid information			Illuminated when key is present, key code received and recognised.
9	Receipt of 1st key programming information			Illuminated if programming of 1st key carried out.

FAULT FINDING - CHECKING CONFORMITY

NOTES	If a fault bargraph illuminates, refer to the corresponding fault chart.

Order of operations	Function to be checked	Action	Bargraph	Display and notes
10	Programming authorised			Illuminated if programming or reallocation in progress.
11	Programming not carried out			Illuminated if programming not carried out.

ADDITIONAL CHECKS

COMMAND MODES G--*

To use this function, enter G on the XR25 keyboard, then the number of the chosen command followed by a star.

01 Coded solenoid valve test mode.

02 Engine immobiliser tell-tale light flashing.

03 Engine immobiliser tell-tale light illuminated.

04 Forced protection mode: activates the engine immobiliser function even if the key is correct, which allows starting prevention to be checked. Bargraph 8 LH side should illuminate.
This command must be entered when the ignition is switched off even though the engine immobiliser is active.
Important: switching off the ignition cancels this command.

13 End of fault finding.

22 Configuration :
- **G 22 * 1 *** = petrol or direct injection diesel configuration (bargraph 3 RH side should be extinguished).
- **G 22 * 2 *** = diesel with coded solenoid valve configuration (bargraph 3 RH side should be illuminated).

41 Enter After Sales code

64 Authorisation of blank key / blank decoder

65 Prohibition of blank key / blank decoder

70 Reading of Part Number

80 Abandon key reallocation mode

81 Validate key reallocation mode

ADDITIONAL CHECKS

LIST OF VARIOUS #

 # 09 Antenna / transponder ring feed fault

 # 33 Details of key valid status

 # 58 Number of keys programmed (maximum of 4)

 # 77 Key presented not blank

 # 90 N° of fiche used