

CLIO

Technical Note 3532A

XB0X

FAULT FINDING

ENGINE IMMOBILISER

This note cancels and replaces section 82 MR 337 - Diag manual

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EDITION ANGLAISE

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

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

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This document presents the fault finding applicable to the "Multi-timer unit" engine immobiliser system fitted to Clio 2.

To carry out fault finding on this system, it is essential to have the following items:

- The MR (MR 337).
- The wiring diagram of the function for the vehicle concerned.
- The Clip or NXR diagnostic tool.

GENERAL APPROACH TO FAULT FINDING

- Implement one of the diagnostic tools to identify the system fitted to the vehicle (computer type, software N°, Calibration N°, Parts Department part no.).
- Locate the Fault finding documents corresponding to the system identified.
- Take note of information contained in the introductory sections.

DESCRIPTION OF THE FAULT FINDING PHASES

1. FAULT CHECKING:

It is essential to start with this stage before any work is done on the vehicle.

- Read the faults stored in the computer memory and use the Interpretation of faults section of the documents.

Reminder: Each fault is interpreted for a particular type of storage (fault present, fault stored in memory, fault present or stored). The checks defined for handling each fault are therefore only to be performed if the fault shown by the diagnostic tool is interpreted in the document for its type of storage. The storage type should be considered when using the diagnostic tool after the ignition has been switched off and switched back on.

If a fault is interpreted when it is declared as stored, the conditions for applying fault finding appear in the notes box. If the conditions are not met, use the fault finding procedure to check the circuit of the faulty component, since the fault is no longer present on the vehicle. Perform the same operation when a fault is declared as stored by the diagnostic tool but is only interpreted in the documentation as a present fault.

2. CHECKING CONFORMITY

The conformity check is designed to check the statuses and parameters which do not display a fault on the diagnostic tool when they are outside the permitted tolerance values. Therefore, this stage is used to:

- Fault finding on faults which are not displayed but which may correspond to a customer complaint.
- Check that the engine immobiliser is operating correctly and that there is no fault after the repair.

This section gives the fault finding procedures for statuses and parameters and the conditions for checking them. If a status is not operating normally or a parameter is outside permitted tolerance values, you should consult the corresponding fault finding page.

3. DEALING WITH CUSTOMER COMPLAINTS

If the diagnostic tool check is correct, but the customer complaint is still present, the fault should be dealt with according to the customer complaint.

This section has fault finding charts, which suggest a series of possible causes of the fault. These lines of investigation must only be used in the following cases:

- No faults appear on the diagnostic tool,
- No fault detected during conformity check.
- The engine immobiliser does not operate correctly.

DF006 PRESENT OR STORED	<u>DIESEL SOLENOID VALVE FEEDBACK CIRCUIT</u>
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NOTES	Priorities when dealing with a number of faults: Deal with fault " DF014 coded line circuit" as a priority if it is present or stored.
	Condition for applying the fault finding procedure to a stored fault: The fault is declared present after the ignition has been switched on for 5 seconds.
	Special notes: If the multi-timer unit has been changed, check that it has been correctly configured by viewing status ET042 coded diesel solenoid valve configuration. This status must be ACTIVE with a diesel engine with coded solenoid valve and INACTIVE with a diesel engine without coded solenoid valve or with a petrol engine. If necessary, configure the multi-timer unit according to the vehicle engine (command mode menu and configuration).

Check the connection and condition of the connector for the coded solenoid valve (black 3 track connector). Repair if necessary.
Disconnect the multi-timer unit and check, ignition off, the insulation, continuity and absence of interference resistance of the connection between: yellow connector of the multi-timer unit track 15 —————> track 8 of the coded solenoid valve Repair if necessary.
Check for the presence of earth and + 12 volts APC of the coded solenoid valve connector (see vehicle wiring diagram). Repair if necessary.

AFTER REPAIR	Clear the fault memory. Deal with any other faults.
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DF006
CONTINUED

Reconnect the solenoid valve and the multi-timer unit, switch on the ignition and using the diagnostic tool, view status **ET006** re-read feedback from the diesel solenoid valve (on the status screen).

If the connection tested previously conforms and the solenoid valve is correctly supplied, status **ET006** should be **ACTIVE** (problem solved).

If the previous checks have not resolved the fault (status **ET006** remains **INACTIVE**), check that the multi-timer unit is sending a signal to the solenoid valve by measuring between **track 8** of the solenoid valve and the earth (multi-timer unit and coded solenoid valve connected electrically).

- When the ignition is switched off, there should be no voltage.
- With the ignition on, the average voltage of approximately 5 volts must be measured with a multimeter on the AC voltage measuring position (the multi-timer unit sends a continuous signal).

NOTE: For more accurate readings, the signal can be checked using an oscilloscope measuring between track 8 of the solenoid valve and earth (calibrated 5 volts/divisions and 50 ms in timebase). A continuous square signal pulse should be displayed.

AFTER REPAIR

Clear the fault memory.
Deal with any other faults.

DF014 PRESENT OR STORED	<u>CODED LINE CIRCUIT</u>
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NOTES	Condition for applying the fault finding procedure to a stored fault: The fault is declared present after the ignition has been switched on for: 20 seconds.
	Special notes: If the multi-timer unit has been changed, check that it has been correctly configured by viewing status ET042 coded diesel solenoid valve configuration. This status must be ACTIVE in the case of a diesel engine with coded solenoid valve and INACTIVE in the case of a diesel engine without coded solenoid valve. If necessary, configure the multi-timer unit according to the vehicle engine (command mode menu and configuration).

Vehicle fitted with coded solenoid valve (non DCI) :

Check the connection and condition of the connector for the coded solenoid valve (black 3 track connector).
Repair if necessary.

Disconnect the multi-timer unit and check, **ignition off, the insulation, continuity and absence of interference resistance** of the connection between:
yellow connector of the multi-timer unit **track 15** → **track 8** of the coded solenoid valve
Repair if necessary.

Check for the presence of **earth** and **+ 12 volts APC** of the coded solenoid valve connector (see vehicle wiring diagram).
Repair if necessary.

Reconnect the solenoid valve and the multi-timer unit, switch on the ignition and using the diagnostic tool, view status **ET006** re-read feedback from the diesel solenoid valve (on the status screen).
If the connection tested previously conforms and the solenoid valve is correctly supplied, status **ET006** should be **ACTIVE** (problem solved).

AFTER REPAIR	Clear the fault memory. Deal with any other faults.
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DF014
CONTINUED 1

If the previous checks have not resolved the fault (status **ET006** remains **INACTIVE**), check that the multi-timer unit is sending a signal to the solenoid valve by measuring between **track 8** of the solenoid valve and the earth (multi-timer unit and coded solenoid valve connected electrically).

- When the ignition is switched off, there should be no voltage.
- With the ignition on, the average voltage of approximately 5 volts must be measured with a multimeter on the AC voltage measuring position (the multi-timer unit sends a continuous signal).

NOTE: For more accurate readings, the signal can be checked using an oscilloscope measuring between **track 8** of the solenoid valve and **earth** (calibrated 5 volts/divisions and 50 ms in timebase). A continuous square signal pulse should be displayed.

If the signal measured before is not present, **change the multi-timer unit**.

If the signal is present but the problem persists, **change the coded diesel solenoid valve**.

AFTER REPAIR

Clear the fault memory.
Deal with any other faults.

DF014
CONTINUED 2

Petrol vehicle or diesel vehicle without coded solenoid valve.

Disconnect the multi-timer unit and check, **ignition off, the insulation, continuity and absence of interference resistance** of the connection between:

yellow connector of the multi-timer unit **track 15** —————> **track *...** of the diesel or injection computer
Repair if necessary.

If the previous check has not resolved the fault, check that the multi-timer unit is sending a signal to the computer by measuring between **track 15** of the multi-timer unit and the earth (multi-timer unit and petrol or diesel injection computer connected electrically).

- When the ignition is switched off, there should be no voltage.
- With the ignition on, the average voltage of approximately 5 volts must be measured with a multimeter on the AC voltage measuring position (the multi-timer unit sends a continuous signal).

NOTE: For more accurate readings, the signal can be checked using an oscilloscope measuring between **track 15** multi-timer unit and **earth** (calibrated 5 volts/divisions and 50 ms in timebase). A continuous square signal pulse should be displayed.

If the signal measured before is not present, **change the multi-timer unit**.

If the signal is present but the fault is still present, **change the petrol or diesel injection computer**.

* depending on engine (see wiring diagram)

AFTER REPAIR

Clear the fault memory.
Deal with any other faults.

DF015 PRESENT OR STORED	<u>DECODER / RING CONNECTION</u> CC.1: Short circuit + 12 volts CO.0: Open circuit or short circuit to earth
NOTES	Priorities in dealing with a number of faults: Deal with the present or stored faults of the anti-theft tracking unit first (see 82A, Engine immobiliser).
	Condition for applying the fault finding procedure to a stored fault: The fault is declared present after: switching on the ignition (with ignition off the fault is stored even if the fault is still present).
	Special notes: Check for the presence of an anti-theft tracking unit. Check with the call centre that the anti-theft tracking unit has not been activated.
	Use the Wiring Diagrams Technical Note for Clio 2 .
CC.1	Check the connection and the condition of the transponder ring connector, component code 957 . If the connector is faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.
	Check the connection and the condition of the UCH connector, component code 645 . If the connector is faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.
	Check the continuity and insulation to + 12 V on the following connections: <ul style="list-style-type: none"> • M of component 957, • 80X between components 645 and 957. If the connection or connections are faulty and if there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.
	If the fault is still present, contact Techline.
AFTER REPAIR	Clear the fault memory. Deal with any other faults.

DF015 CONTINUED 1	
CO.0	<p>Check the connection and the condition of the transponder ring connector, component code 957. If the connector is faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p> <p>Check the connection and the condition of the UCH connector, component code 645. If the connector is faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p> <p>If the anti-theft tracking unit is not present in the vehicle:</p> <p>Disconnect the transponder ring connector and check that there is a correct + 12 V after ignition supply on connection AP10 of the transponder ring, component code 957. If the connection is faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p> <p>Check the continuity and insulation to earth of the following connection:</p> <ul style="list-style-type: none">• AP10 between components 1016 and 957. <p>If the connection is faulty and there is a repair procedure (see Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>
AFTER REPAIR	<p>Clear the fault memory. Deal with any other faults.</p>

DF015
CONTINUED 2

If the **anti-theft tracking unit**, component code **2186** is **present** in the vehicle:

Check the connection and condition of the anti-theft tracking unit connector, component code **2186**.
If the connector is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Disconnect the connector of the transponder ring, component code **957** and check that the **+ 12 V after ignition** supply is correct on connection **80AL** of component **957**.
If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Disconnect the connector of the **anti-theft tracking unit**, component code **2186** and check for the presence of **+ 12 V after ignition** on connection **AP10** of component **2186**.
If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

AFTER REPAIR

Clear the fault memory.
Deal with any other faults.

DF015
CONTINUED 3

Check the **continuity, insulation and the absence of interference resistance** on the following connections:

- **AP10** between components **1016** and **2186**,
- **80AL** between components **2186** and **957**,
- **80X** between components **645** and **957**.

If the connection or connections are faulty and if there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

Check the continuity between connections **AP10** and **80AL** of components **1016** and **957**.

If the check is not correct, contact the Techline.

AFTER REPAIR

Clear the fault memory.
Deal with any other faults.

DF065 PRESENT	<u>COMPUTER</u>
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NOTES	None.
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The computer fault indicates an internal memory fault. Try to **erase the fault**, and switch the ignition on and off again.

If the fault reappears, check **the connection and condition** of the multi-timer unit connector.
Repair if necessary.

Disconnect the black connector and the yellow connector from the multi-timer unit and check, **with the ignition on**, the conformity of its supply (it must be equal to the battery voltage ± 0.5 volts) by checking the connections between:

Black connector of the multi-timer unit **track B1** —————> **+ before ignition**

Black connector of the multi-timer unit **track A1** —————> **earth**

Yellow connector of the multi-timer unit **track 6** —————> **+ after ignition**

Repair if necessary.

If the previous checks did not allow the fault to be cleared, **replace** the multi-timer unit.

AFTER REPAIR	Clear the fault memory. Deal with any other faults.
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ENGINE IMMOBILISER

Fault finding - Conformity check

NOTES

Only perform this conformity check after a full check with the diagnostic tool (**no faults should be present**). The values shown in this check are only given as examples. Check application conditions: **Ignition off and immobiliser ACTIVE**.

Order	Function	Parameter or status check or action	Display and notes	Fault finding
1	Supplies	ET005: +12 volts APC	INACTIVE	In the event of a fault, check the conformity of the supplies to the multi-timer unit. If the fault is still present, carry out a fault finding test on the charging circuit .
		PR002: Computer supply voltage	10 V < x < 12.5 V	
2	Engine immobiliser	ET001: Engine immobiliser	ACTIVE	If the status is INACTIVE (ignition off for more than 15 seconds) and the key programming has been correctly carried out, replace the multi-timer unit.
		ET007: Forced protection mode	ACTIVE	This status should only change to ACTIVE after the "forced protection mode" command has been run. This command tests the immobiliser (it is impossible to start the engine). If the status is ACTIVE switch on the ignition, switch it off and switch it on again.
3	Ignition key	ET002: Key code received	NO	None
		ET003: Key code valid	NO	
		ET008: Key present	NO	

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Fault finding - Conformity check

NOTES

Only perform this conformity check after a full check with the diagnostic tool (**no faults should be present**). The values shown in this check are only given as examples.
Check application conditions: **Ignition off and immobiliser ACTIVE**.

Order	Function	Parameter or status check or action	Display and notes	Fault finding
4	Key programming	ET020: Programming the first key	INACTIVE	Switches to ACTIVE status when programming the first key.
		ET022: Key programming complete	YES	If these statuses display NO , the key must be programmed. For more information, see the programming procedure.
		ET023: Key programming locked	YES	
		ET045: Key programming configuration	one key or two keys	one or two KEYS depending on the configuration performed.
5	Coded diesel solenoid valve	ET042: Coded diesel solenoid valve configuration	ACTIVE or INACTIVE	The status must be ACTIVE if the diesel engine is fitted with a coded solenoid valve and INACTIVE with a diesel engine without coded solenoid valve (DCI) or for a petrol engine. If the specification of the status does not comply with the vehicle engine the multi-timer unit must be reprogrammed.
		ET006: Re-read diesel solenoid valve acknowledgement	ACTIVE	If the status is INACTIVE , change the coded diesel solenoid valve.

ENGINE IMMOBILISER

Fault finding - Conformity check

NOTES

Only perform this conformity check after a full check with the diagnostic tool (**no faults should be present**). The values shown in this check are only given as examples.
Check application conditions: **Ignition off and immobiliser ACTIVE**.

Order	Function	Parameter or status check or action	Display and notes	Fault finding
6	Immobiliser security code	ET142: Security code entry timed lock	INACTIVE	ACTIVE after incorrect security code entered three times. This status will become INACTIVE when a correct code is entered. NOTE: If the status is ACTIVE , wait 15 minutes, with the ignition on, before entering a new security code.
7	Immobiliser warning light	PR005: LED warning light	0 or 1	The status is 0 if the warning light is switched off and 1 when it is lit.
8	Equipment level	PR014: Equipment level	1, 2, 3 and 4	None

ENGINE IMMOBILISER

Fault finding - Conformity check

NOTES

Only perform this conformity check after a full check with the diagnostic tool (**no faults should be present**). The values shown in this check are only given as examples. Check application conditions: **Ignition on and immobiliser INACTIVE**.

Order	Function	Parameter or status check or action	Display and notes	Fault finding
1	Supplies	ET005: +12 volts APC	ACTIVE	In the event of a fault, check the conformity of the supplies to the multi-timer unit. If the fault is still present, carry out a fault finding test on the charging circuit .
		PR002: Computer supply voltage	$10\text{ V} < x < 12.5\text{ V}$	
2	Engine immobiliser	ET001: Engine immobiliser	INACTIVE	If the status is ACTIVE , check that the multi-timer unit is correctly configured and that key programming has been carried out. If the fault is still present, see ALP 3
		ET007: Forced protection mode	INACTIVE	This status should only change to ACTIVE after the "forced protection mode" command has been entered. This command tests the immobiliser (it is impossible to start the engine). If the status is ACTIVE switch on the ignition, switch it off, then switch it on again.
3	Ignition key	ET002: Key code received	YES	If one of these statuses is identified as NO , refer to the interpretation of these statuses.
		ET003: Key code valid	YES	
		ET008: Key present	YES	

ENGINE IMMOBILISER

Fault finding - Conformity check

NOTES

Only perform this conformity check after a full check with the diagnostic tool (**no faults should be present**). The values shown in this check are only given as examples. Check application conditions: **Ignition on and immobiliser INACTIVE**.

Order	Function	Parameter or status check or action	Display and notes	Fault finding
4	Key programming	ET020: Programming the first key	INACTIVE	Changes to ACTIVE status when the first key is programmed.
		ET022: Key programming complete	YES	If these statuses display NO , the key must be programmed. For more information, see the programming procedure.
		ET023: Key programming locked	YES	
		ET045: Key programming configuration	one key or two keys	one or two KEYS depending on the configuration performed.
5	Coded diesel solenoid valve	ET042: Coded diesel solenoid valve configuration	ACTIVE or INACTIVE	The status must be ACTIVE if the diesel engine is fitted with a coded solenoid valve and INACTIVE with a diesel engine without coded solenoid valve (DCI) or for a petrol engine. If the specification of the status does not comply with the vehicle engine the multi-timer unit must be reprogrammed.
		ET006: Re-read diesel solenoid valve acknowledgement	ACTIVE	If the status is INACTIVE , change the coded diesel solenoid valve.

ENGINE IMMOBILISER

Fault finding - Conformity check

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NOTES

Only perform this conformity check after a full check with the diagnostic tool (**no faults should be present**). The values shown in this check are only given as examples.
Check application conditions: **Ignition on and immobiliser ACTIVE**.

Order	Function	Parameter or status check or action	Display and notes	Fault finding
6	Immobiliser security code	ET142: Security code entry timed lock	INACTIVE	ACTIVE after incorrect security code entered three times. This status becomes INACTIVE when a correct code is entered. NOTE: If the status is ACTIVE , wait 15 minutes, with the ignition on, before entering a new security code.
7	Immobiliser warning light	PR005: LED warning light	0 or 1	The status is 0 if the warning light is switched off and 1 when it is lit.
8	Equipment level	PR014: Equipment level	1, 2, 3, 4, 5 or 6	None

ET002
ET003
ET008KEY CODE RECEIVED
KEY CODE VALID
KEY PRESENTED**NOTES****Special notes:**

Before finding a possible fault with these statuses, check that the key programming has been carried out correctly by viewing the statuses "**ET022** key programming carried out and **ET023** key programming locked". These two statuses must have the specification **YES**, if this is not the case, see the key programming procedure.

IGNITION OFF, IMMOBILISER ACTIVE: The three statuses have the specification NOT
IGNITION ON, IMMOBILISER INACTIVE: The three statuses must have the specification **YES**
If this is not the case, there are three possible cases:

ET008 KEY PRESENT: NO —————> The key's electronic components no longer work
or
The ring is not receiving the signal.
To determine which component is no longer working, a test must be carried out with a new antenna/transponder ring (it is uncoded).
If the fault is resolved, the antenna/transponder ring must be replaced. If this is not the case, the key head chip must be replaced.

ET002 KEY CODE RECIEVED: NO —————> The ring / decoder unit connection is faulty and it is necessary to apply the fault finding procedure associated with this fault (DF015)
or
The ring is faulty and it needs to be replaced.

ET003 KEY CODE VALID: NO —————> The key's electronic components no longer work
or
The key head chip does not conform to the code allocated to the multi-timer unit.
In both cases, the key head chip must be replaced.

AFTER REPAIR

Repeat the conformity check from the start.

NOTES

These customer complaints should only be investigated after a complete check has been run using the diagnostic tool.

NO DIALOGUE WITH THE COMPUTER

ALP 1

THE VEHICLE DOES NOT START (with the ignition on, the immobiliser warning light flashes continuously).

ALP 2

THE VEHICLE DOES NOT START (when the ignition is switched on, the immobiliser warning light comes on for 3 seconds and turns off).

ALP 3

THE IMMOBILISER WARNING LIGHT REMAINS LIT

ALP 4

THE IMMOBILISER WARNING LIGHT DOES NOT COME ON (even when the immobiliser is active).

ALP 5

ALP 1	<u>NO DIALOGUE WITH THE COMPUTER</u>
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NOTES	None.
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<p>Check that the vehicle battery is properly charged. Charge the battery if necessary.</p>
<p>Try the diagnostic tool on another vehicle (to confirm that it is working).</p>
<p>Check:</p> <ul style="list-style-type: none"> – the connection between the diagnostic tool and the diagnostic socket (lead in good condition), – injection, engine and passenger compartment fuses.
<p>Check for the presence of + 12 volts before ignition on track 16, + 12 volts after ignition feed on track 1 and earth on tracks 4 and 5 of the diagnostic socket. Repair if necessary.</p>
<p>Check that the multi-timer unit is correctly connected to a power supply and to the diagnostic socket, checking the insulation, continuity and absence of interference resistance of connections:</p> <ul style="list-style-type: none"> black connector of the multi-timer unit track B1 —————> + before ignition (engine fuse box) yellow connector of the multi-timer unit track 6 —————> + after ignition (passenger compartment fuse box) black connector of the multi-timer unit track A1 —————> earth yellow connector of the multi-timer unit track 1 —————> track 15 of the diagnostic socket (line L) yellow connector of the multi-timer unit track 14 —————> track 7 of the diagnostic socket (line K) <p>Repair if necessary.</p>
<p>If the checks have not resolved the problem, replace the multi-timer unit.</p>

AFTER REPAIR	<p>Perform a complete check using the diagnostic tool.</p> <p>If the multi-timer unit has been replaced, carry out the programming and configuration referring to the programming procedure.</p>
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ALP 2	<u>THE VEHICLE DOES NOT START</u> (with the ignition on and the immobiliser indicator light flashing continually).
NOTES	Only consult this customer complaint after a full check with the diagnostic tool (no fault must be present in the fault finding of the immobiliser, the injection and the connection unit).
	Special notes: Before carrying out this fault finding procedure, check that the programming and configuration of the multi-timer unit have been carried out by viewing statuses ET022 , ET023 and ET042 . To find out if these statuses are correct, refer to the section conformity check . If the statuses do not have the required specification, refer to the programming procedure to find out the programming procedure for the keys.
<p>If the anti-theft tracking unit is fitted to the vehicle and the does vehicle not start, the customer should be asked the following questions:</p> <ul style="list-style-type: none"> – Who is your vehicle detection service supplier? – Which activation option did you choose? (with locating system/without locating system) – Did you request remote blocking? (If yes, this is why the engine does not start). <p>If the vehicle detection service cannot be activated, ask the owner:</p> <ul style="list-style-type: none"> – What is the server name of the vehicle detection service supplier? – What is the APN address of the vehicle detection service supplier? <p>This is to ensure that the information given by their access supplier via GSM conform with what is noted in the computer.</p>	
Check for the presence of an AVC supply on track 3 and an earth on track 2 of the antenna/transponder ring connector. Repair if necessary (see the vehicle wiring diagram). Carry out the fault finding procedure of DF015.	
Switch on the ignition and check the statuses in the status menu: ET008 KEY PRESENT ET002 KEY CODE RECEIVED	

AFTER REPAIR	Perform a complete check using the diagnostic tool. If the multi-timer unit has been replaced, carry out the programming and configuration referring to the programming procedure.
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**ALP 2
CONTINUED****Do the statuses display: YES ?****YES**Switch on the ignition, and in the status menu
check the status: ET003 KEY CODE**Does the status display: YES?****YES**Replace the multi-
timer unit.**NO**

Replace the key head chip.

NO

Carry out a test with the second key.

Has the fault disappeared?**NO**

Replace the antenna ring.

YESThe key head chip of the first
key is faulty, replace it.**AFTER REPAIR**

Perform a complete check using the diagnostic tool.
If the multi-timer unit has been replaced, carry out the programming and configuration
referring to the programming procedure.

ALP 3	<u>THE VEHICLE DOES NOT START</u> (when the ignition is switched on, the immobiliser warning light comes on for 3 seconds and turns off).
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NOTES	Only consult this customer complaint after a complete check using the diagnostic tool (no faults should be present in the fault finding procedure on the immobiliser and the injection). Special notes: Before applying this fault finding procedure, check that the programming and configuration of the multi-timer unit have been carried out, especially the entering of the manual code if the multi-timer unit has been replaced (so that the new code can be stored by the injection computer or the coded solenoid valve).
	NOTE: To activate the diesel solenoid valve control using the diagnostic tool: <ul style="list-style-type: none">– With diesel injection without injection computer, the command mode is in the immobiliser fault finding procedure.– With diesel injection with injection computer, there is no coded solenoid valve and therefore no command mode.

For vehicles fitted with a diesel engine:

With the diagnostic tool connected, perform a mechanical check of the solenoid valve (additional check): With the ignition off, activate command DIESEL SOLENOID VALVE and switch on the ignition again (as soon as the command has been activated). The solenoid valve should open and close for 30 seconds.
Can the solenoid valve be heard?

YES
↓

NO
↓

Refer to **the fault finding chart** (for starting faults) contained in the technical note for the diesel injection fitted to the vehicle. This customer complaint gives the scope for finding the principal causes for non starting: Fault with the starter, battery voltage, engine coolant sensor, preheating, engine speed sensor, air and fuel supply circuits, exhaust system and the general condition of the engine (oil level, compression etc.).

Replace the coded diesel solenoid valve.

AFTER REPAIR	Perform a complete check using the diagnostic tool.
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**ALP 3
CONTINUED****For vehicles fitted with petrol engines:**

Refer to **the fault finding chart** (for starting faults) contained in the technical note for the petrol injection fitted to the vehicle. This customer complaint gives the scope for finding the principal causes for non starting: Fault with the starter, battery voltage, engine coolant sensor, preheating, engine speed sensor, air and fuel supply circuits, exhaust system and the general condition of the engine (oil level, compression etc.).

AFTER REPAIR

Perform a complete check using the diagnostic tool.

ALP 4	<u>THE IMMOBILISER WARNING LIGHT STAYS ILLUMINATED</u>
NOTES	Only consult this customer complaint after a full check with the diagnostic tool (no fault must be present in the fault finding of the immobiliser, the injection and the multi-timer unit).
	Special notes: If there is a diesel solenoid valve cut-out fault or a problem on the coded line, the immobiliser warning light stays on. In the immobiliser fault finding procedure, check whether the faults are not present or stored.
	NOTE: When resynchronising the remote control (long press on the electric door lock button), the immobiliser warning light remains continuously lit for 10 seconds: normal mode.

AFTER REPAIR	Perform a complete check using the diagnostic tool. If the multi-timer unit has been replaced, carry out the programming and configuration referring to the programming procedure.
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**ALP 4
CONTINUED**

Switch on the ignition and check the statuses in the status menu:
ET006 RE-READ DIESEL SOLENOID VALVE ACKNOWLEDGEMENT

Do these statuses have the specification: ACTIVE?

YES

Disconnect the multi-timer unit.

Does the warning light go out?

NO

Multi-timer unit disconnected and ignition off, check the insulation (from earth), **the continuity and absence of interference resistance** of the connection between:

yellow connector of the multi-timer unit on **track 24** —————→ **track 5** of the grey instrument panel connector

Repair if necessary.

Does the warning light turn off?

NO

Carry out a fault finding procedure on the instrument panel (refer to the relevant Technical Note).

NO

Carry out the fault finding procedure of fault:
DF057 DIESEL SOLENOID VALVE FEEDBACK CIRCUIT;

YES

Disconnect the multi-timer unit.

YES

End of fault finding.

AFTER REPAIR

Perform a complete check using the diagnostic tool.
If the multi-timer unit has been replaced, carry out the programming and configuration referring to the programming procedure.

ALP 5

THE IMMOBILISER WARNING LIGHT DOES NOT LIGHT UP (even when the immobiliser is active)

NOTES

Only consult this customer complaint after a **complete check using the diagnostic tool** (no faults should be present in the fault finding procedure on the immobiliser and the injection).

Multi-timer unit disconnected and ignition off, check the **insulation** (from + 12 volts), **the continuity and absence of interference resistance** of the connection between:

yellow connector of the multi-timer unit **on track 24** —————→ **track 5** of the grey instrument panel connector

Repair if necessary.

When the multi-timer unit connector is reconnected, does the warning light turn off?

NO

YES

Disconnect the multi-timer unit and connect track 24 of the multi-timer unit yellow connector to the vehicle earth.

End of fault finding.

Does the warning light go out?

NO

YES

Check the conformity of the supplies and earths of the instrument panel (see instrument panel diagram). If the supplies and earths are correct, run fault finding on the instrument panel (refer to the corresponding technical note).

Replace the multi-timer unit

AFTER REPAIR

Perform a complete check using the diagnostic tool.
If the multi-timer unit has been replaced, carry out the programming and configuration referring to the programming procedure.