

DUSTER

8 Electrical equipment

82D

ACCESS – SAFETY

UCH

Vdiag No.: 09

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V1

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 his vehicles are constructed."

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1. APPLICABILITY OF THE DOCUMENT

This document presents the fault finding method applicable to all computers with the following specifications:

Vehicle: **DUSTER**

Function concerned: **ACCESS/SAFETY**

Computer name: **UCH**

Vdiag No.: **09**

2. PREREQUISITES FOR FAULT FINDING

Documentation type

Fault finding procedures (this manual):

- Assisted fault finding (integrated into the **diagnostic tool**),
- Dialogys.

Wiring Diagrams:

- Visu-Schéma.

Type of diagnostic tools

- **CLIP**

Special tooling required

Special tooling required	
Diagnostic tool	
Multimeter	
Elé. 1622	Bornier
Elé. 1681	Universal bornier

If the information obtained by the diagnostic tool requires checking electrical continuity, connect bornier **Elé. 1622** or universal bornier **Elé. 1681**.

WARNING:

- All tests with bornier **Elé. 1622** or **Elé. 1681** must be conducted with the battery disconnected.
- The bornier is only designed to be used with a multimeter. Never supply the test points with **12 V**.

3. SAFETY INSTRUCTIONS

The safety instructions must be followed at all times when working on components, to avoid damage or injury:

- check the battery voltage to avoid incorrect operation of computer functions,
- use the proper tools.

Procedure for disconnecting the battery:

- switch off the ignition,
- switch off all electrical consumers,
- Wait at least **1 minute** for the electronic systems to switch off,
- disconnect the battery, starting with the negative terminal.

Faults

Faults are declared present or stored (depending on whether they appeared in a certain context and have disappeared since, or whether they remain present but are not diagnosed within the current context).

The **present** or **stored** status of faults should be taken into consideration when the **diagnostic tool** is used after the + after ignition feed (without activating the system components).

For a **present fault**, apply the procedure described in the Interpretation of faults section.

For a **stored fault**, note the faults displayed and apply the Notes section.

If the fault is **confirmed** when the instructions are applied, the fault is present. Deal with the fault.

If the fault is **not confirmed**, check:

- the electrical connections that correspond to the fault,
- the connectors for this connection,
- the resistance of the faulty component,
- the condition of the wires.

Refer to paragraphs 4.1 Checking wiring and 4.2 Checking connectors

Conformity check

The aim of the conformity check is to check data which does not produce a fault on **the diagnostic tool** when the data is inconsistent. Therefore, this stage is used to:

- carry out fault finding on faults that do not have a fault display, and which may correspond to a customer complaint,
- check that the system is operating correctly and that there is no risk of a fault recurring after repair.

This section gives the fault finding procedures for statuses and parameters and the conditions for checking them.

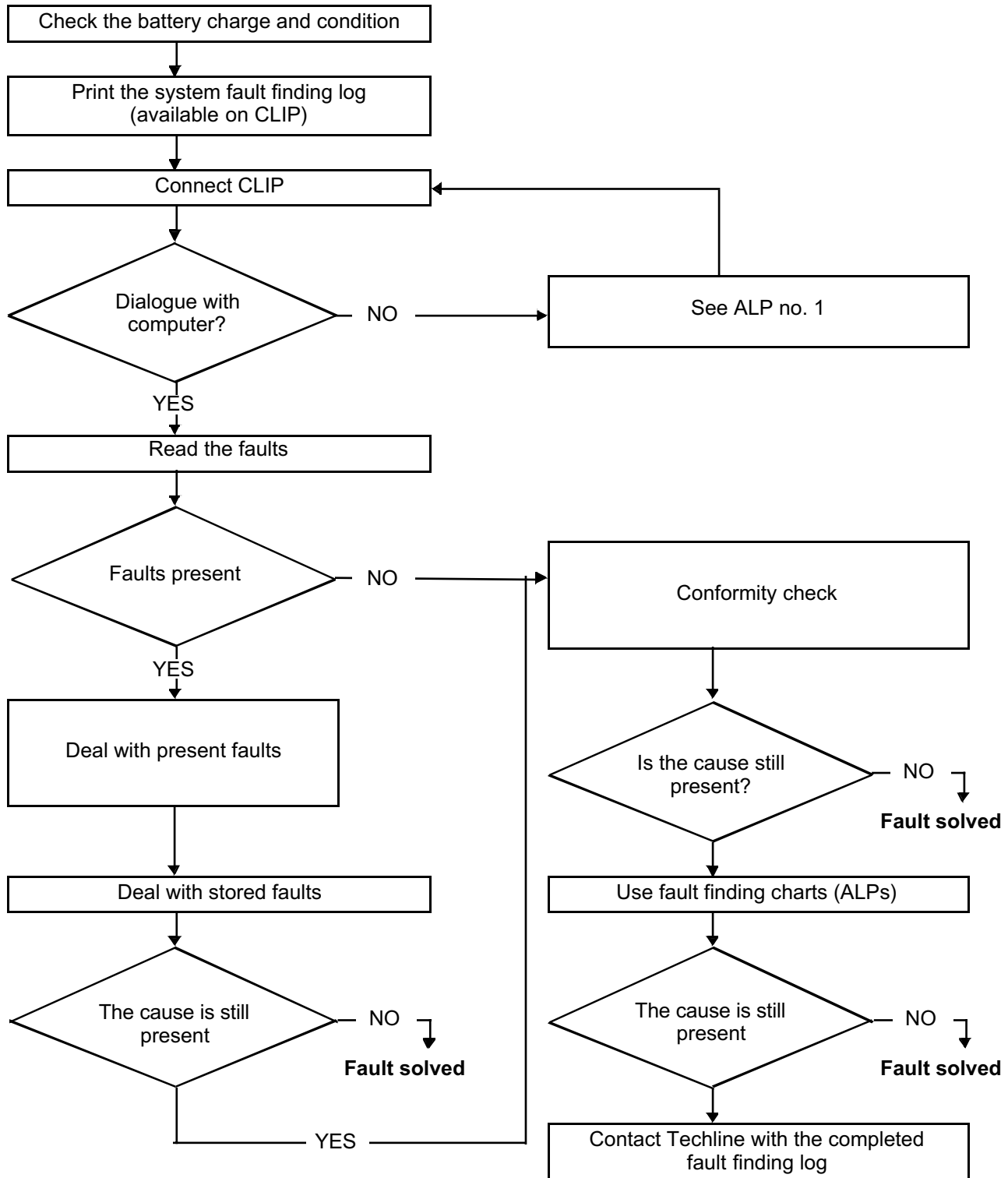
If a status is not behaving normally or a parameter is outside permitted tolerance values, you should consult the corresponding fault finding page.

Customer complaints - Fault finding chart

If the test with **the diagnostic tool** is OK but the customer complaint is still present, the fault should be dealt with by **customer complaints**.

A summary of the overall procedure to follow is provided on the following page in the form of a flow chart.

4. FAULT FINDING PROCEDURE



FAULT FINDING PROCEDURE (CONTINUED)

4.1 Wiring check

Fault finding problems

Disconnecting the connectors and/or manipulating the wiring may temporarily clear the cause of a fault.

Visual inspection

Look for damage under the bonnet and in the passenger compartment.

Carefully check the protectors, insulation, and routing of the wiring, as well as the mountings.

Physical inspection

When manipulating the wiring, either use the **diagnostic tool** to detect a change in status, from "stored" to "present", or the multimeter to view the status changes.

Make sure that the connectors are firmly secured.

Apply light pressure to the connectors.

Twist the wiring harness.

Checking earth insulation

This check is carried out by measuring the voltage (multimeter in voltmeter mode) between the suspect connection and the **12 V** or **5 V**. The correct measured value is **0 V**.

Checking insulation against + 12 V or + 5 V

This check is carried out by measuring the voltage (multimeter in voltmeter mode) between the suspect connection and the earth. In the first instance, the earth may be taken on the chassis. The correct measured value should be **0 V**

Continuity check

A continuity check is carried out by measuring the resistance (multimeter in ohmmeter mode), with the connectors disconnected at both ends. The expected result is **1 Ω \pm 1 Ω** for each connection. The line must be fully checked, and the intermediate connections are only included in the method if this saves time during the fault finding procedure. The continuity check on the multiplex lines must be carried out on both wires. The measured value should be **1 Ω \pm 1 Ω** .

Checking the supply

This check may be carried out using a test light (**21 W** or **5 W** depending on the maximum authorised load).

4.2 Connector check

Note:
Carry out each requested check visually.
Do not remove a connector if it is not required.

Note:
Repeated connections and disconnections alter the functionality of the connectors and increase the risk of poor electrical contact. Limit the number of connections/disconnections as much as possible.

Note:
The check is carried out on the 2 parts of the connection. There may be two types of connection:
– Connector/Connector.
– Connector/Device.

Visual inspection of the connection:

- Check that the connector is connected correctly and that the male and female parts of the connection are correctly coupled.

Visual inspection of the area around the connection:

- Check the condition of the mounting (pin, strap, adhesive tape, etc.) if the connectors are attached to the vehicle.
- Check that there is no damage to the wiring trim (sheath, foam, adhesive tape, etc.) near the wiring.
- Check that there is no damage to the electrical wires at the connector outputs, in particular on the insulating material (wear, cuts, burns, etc.).

Disconnect the connector to continue the checks.

Visual inspection of the plastic casing:

- Check that there is no mechanical damage (casing crushed, cracked, broken, etc.), in particular to the fragile components (lever, lock, openings, etc.).
- Check that there is no heat damage (casing melted, darker, deformed, etc.).
- Check that there are no stains (grease, mud, liquid, etc.).

• Visual inspection of the metal contacts:

(The female contact is called CLIP. The male contact is called TAB).

- Check that there are no bent contacts (the contact is not inserted correctly and can come out of the back of the connector). The contact comes out of the connector when the wire is pulled gently.
- Check that there is no damage (folded tabs, clips open too wide, blackened or melted contact, etc.).
- Check that there is no oxidation on the metal contacts.

• **Visual inspection of the sealing:**

(Only for watertight connectors)

Check for the seal on the connection (between the 2 parts of the connection).

- Check the seal at the back of the connectors:
 - For unit *joints* (1 for each wire), check that the unit joints are present on each electrical wire and that they are correctly positioned in the opening (level with the housing). Check that plugs are present on openings which are not used.
 - For a *grommet* seal (one seal which covers the entire internal surface of the connector), check that the seal is present.
 - For *gel* seals, check for gel in all of the openings without removing the excess or any protruding sections (it does not matter if there is gel on the contacts).
 - For *hotmelt* sealing (heat-shrink sheath with glue), check that the sheath has contracted correctly on the rear of the connectors and electrical wires, and that the hardened glue comes out of the side of the wire.
- Check that there is no damage to any of the seals (cuts, burns, significant deformation, etc.).

If a fault is detected, consult **Technical Note 6015A, Repairing electrical wiring**.

FAULT FINDING LOG



IMPORTANT!

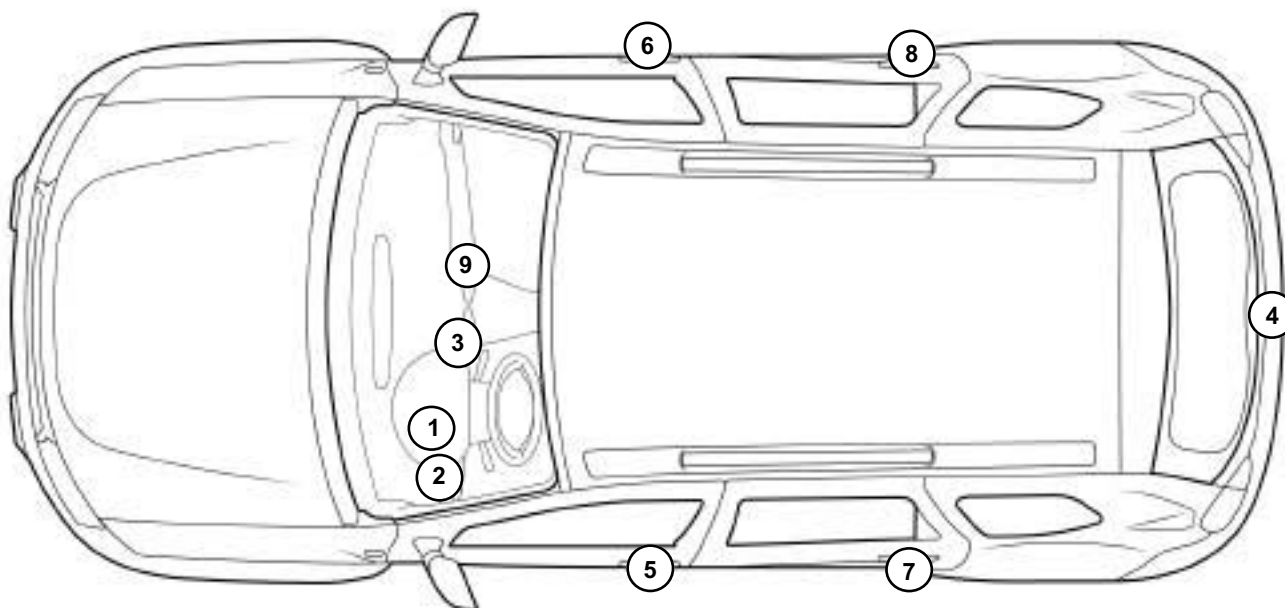
IMPORTANT

Any fault on a complex system requires thorough fault finding with the appropriate tools. The FAULT FINDING LOG, which should be completed during the fault finding procedure, ensures a record is kept of the procedure carried out. It is an essential document when consulting the manufacturer.

IT IS THEREFORE ESSENTIAL THAT THE FAULT FINDING LOG IS FILLED OUT EVERY TIME IT IS REQUESTED BY TECHLINE OR THE WARRANTY RETURNS DEPARTMENT.

You will always be asked for this log:

- when requesting technical assistance from the Techline,
- when requesting approval before replacing parts for which approval is compulsory,
- to be attached to monitored parts for which reimbursement is requested. The log is needed for warranty reimbursement, and enables better analysis of the parts removed.



000000738

- | | |
|---|--------------------------------|
| 1 | UCH |
| 2 | Passenger compartment fuse box |
| 3 | Transponder ring |
| 4 | Tailgate or boot lid lock |
| 5 | Driver's lock |

- | | |
|---|----------------------|
| 6 | Passenger lock |
| 7 | Rear left-hand lock |
| 8 | Rear right-hand lock |
| 9 | CPE* button |
- CPE*: electric central door locking

Electric central door locking:

The doors can be centrally locked and unlocked using the CPE* button.

Tailgate lock:

The tailgate locking and unlocking function is controlled by the UCH.

Front driver and passenger locks:

The front driver and passenger door locking and unlocking command is provided by the UCH.

Transponder and radiofrequency key:

- the **transponder** in the key enables the following signals to be sent to the UCH:
- Key identifier signal.
- Immobiliser code signal.

The transponder is also involved in the Immobiliser function.

The radiofrequency key is used to transmit the key identifier information after pressing the button once. A radiofrequency wave is sent to the UCH to carry out the user's request if the key is allocated to the vehicle (locking or unlocking the doors and the tailgate).

Injection

When the authentication messages with the UCH have been exchanged, the injection can be unlocked and authorise the starting of the engine.

The injection system is unlocked and engine starting is authorised as soon as the UCH has authenticated the injection computer.

CPE*: electric central door locking.

Engine immobiliser

The immobiliser function is divided between three coded computers (the UCH, the injection computer and the key). Communication between the key and the UCH is ensured by the transponder ring through a magnetic field created between the transponder ring and the key.

When the + After ignition is switched on, the key sends its identifier to the UCH via the transponder ring, located on the ignition switch. The UCH runs through an authentication procedure with the key via the transponder ring. If the key is allocated to the vehicle, then operation of the starter motor is authorised and the injection system is unlocked.

The injection computer has no reference code in its memory: the code which is transmitted is stored.

If the code supplied by the key is not recognised by the UCH, then the system remains locked. The red engine immobiliser warning light flashes (quickly). The vehicle cannot be started.

IMPORTANT

When the vehicle battery has a low charge, the drop in voltage caused by operating the starter could reactivate the immobiliser. If the voltage is too low, the engine cannot be started, even by pushing the vehicle.

Recognition of keys in normal operation

	IMMOBILISER WARNING LIGHT
Vehicle protected (without After Ignition)	Indicator light flashes at 1 Hz
Key recognised, injection protection lifted	Warning light continuously illuminated for 3 seconds and then goes out
Key not recognised, injection protected	Warning light flashes at 4 Hz

Locking / Unlocking

This system can function with up to four remote control units (the UCH can only manage four different codes).

The radio frequency signal receiver is integrated in the UCH.

The central door locking button is inhibited once the doors have been locked by the remote control.

Locking and unlocking the doors with the remote control is confirmed by the hazard warning lights flashing (if all the doors are closed properly):

- locking: 2 flashes,
- unlocking: 1 flash.

Depending on the equipment level, the system automatically locks the vehicle opening elements (without the hazard warning lights flashing) if the doors are not opened for **30 seconds** after they have been unlocked.

The UCH controls the vehicle interior lighting. If a courtesy light is left on, the UCH will cut the lighting supply after a period of approximately **30 minutes**.

Note:

Unlocking can be performed by the UCH, if the airbag computer has detected an impact or if it is faulty (see **88C, Airbag - Seat belt pretensioners**).

The "top of the range" version gradually dims the interior lights after one of the vehicle doors has been opened. After the doors have been closed using the radiofrequency remote control, the interior lights are switched off immediately.

Replacement keys are assigned to the vehicle VIN when they are ordered from the spare parts department.

It is possible in the event of a key being stolen or lost or at the customer's request, for a vehicle key to be de-allocated.

It can be reassigned to the same vehicle if necessary.

Starting

The UCH controls the command and supply part of the start-up function and the starting and charging process is controlled by the UCH. For this function to operate normally, the protection function must have been successfully completed.

IMPORTANT:

When the vehicle battery has a low charge, the drop in voltage caused by operating the starter could reactivate the immobiliser. If the voltage is too low, the engine cannot be started, even by pushing the vehicle.

Note:

If several, i.e. three or four, attempts have been made using a key not allocated to the vehicle, the injection computer locks. Insert a key allocated to the vehicle for **20 seconds** in **+ after ignition feed**, then switch off the ignition and wait for the end of power-latch (**20 minutes**) to allow the injection computer to unlock.

* Powerlatch: Injection computer power supply duration after + 12V after ignition cut-off to the ignition switch.

CONFIGURATION

New parts are not coded. Once fitted on the vehicle, they must be programmed with a code to become operational.

To perform this procedure, it is essential that some parts on the vehicle are already correctly coded (with the vehicle code).

Refer to the allocation table.

ALLOCATION TABLE

AFTER-SALES OPERATION	STATE OF COMPONENTS			REPAIR CODE NEEDED
	UCH	Key	Injection computer	
Programming the Passenger Compartment Central Unit (UCH)	Blank	Coded	Coded	YES
Key allocation or cancellation	Coded	Blank*	-	YES
Programming the injection computer	Coded	Coded	Blank	NO

Blank*: The key allocated to a vehicle must be blank or already programmed to this vehicle.

A new UCH is not coded. You must therefore program a code into a new UCH fitted to a vehicle to make the UCH operational.

To perform this procedure, at least one of the vehicle's old keys and the repair code are required and the injection computer must be correctly coded (refer to the allocation table).

IMPORTANT:

If a code is programmed into the UCH, the UCH is allocated to the vehicle. It is impossible to erase the code or program in another one. The programmed code cannot be erased.

WARNING:

The keys submitted during this procedure will only work if:
they have already been coded on this vehicle,
or they are new (not coded).

Note:

If only the UCH is replaced, there is no operation to perform on the injection computer, as it retains the same immobiliser code.

Equipment required:
CLIP diagnostic tool

Access and Safety function configurations in the UCH

Configuration readings available using the **diagnostic tool**:

Configuration reading	Name of configuration	Option	Configuration
LC012	Automatic relocking	WITH OR WITHOUT	SC008 UCH type
LC097	Type of key	ONE BUTTON or TWO BUTTONS	
LC113	Airbag	WITH OR WITHOUT	
LC149	Key locking	WITH OR WITHOUT	
LC165	Seat belt not fastened sensor	ACTIVE or INACTIVE	
LC169	Vehicle locked by RAID* function	YES or NO	
LC170	RAID* function authorisation by diag tool	WITH OR WITHOUT	
LC171	Radiofrequency function	WITH OR WITHOUT	
LC172	Type of central door locking button (CPE)*	1 POSITION or 2 POSITIONS	

* RAID: Renault Anti-Intruder Device.

* CPE: Electric central door locking.

- Check the configurations in the **Read configurations** menu

UCH PROGRAMMING PROCEDURE

The UCH programming procedure is carried out using the **diagnostic tool**.

- Establish dialogue with the UCH computer.
- In the menu **Special commands**, select the command **SC004 Program UCH**.

The tool displays **Remove the key from the anti-theft switch**,

The tool displays **Please enter the After-Sales code**. With the ignition off, enter the secret After-Sales code and validate.

If the code format is correct, the tool displays **Insert a key which has already been programmed to the vehicle** and the programming procedure starts.

The tool displays **UCH programming completed, please start key programming procedure**, the UCH is coded.

Enter key programming mode to allocate the other keys (maximum of three keys). Several seconds may elapse before this message appears.

IMPORTANT:

The maximum delay between each operation is **5 minutes**, otherwise the procedure is cancelled.
Once the UCH is coded, it is impossible to clear or program it with a new code.

SPECIAL CASES

If the screen displays:

- **The After-Sales code entered does not correspond with the key inserted. Check that you have entered the code correctly and you have inserted a key belonging to the vehicle:**
 - The code read is incorrect or the UCH has already been coded on another vehicle.
- **The UCH is not blank. Please start the key programming procedure:** the UCH is already coded on this vehicle.
- **Check the After-Sales code:** the code entered is incorrect. Check, then try entering the data again,
- **UCH programming failure, key cannot be used on this vehicle:** the key code does not correspond to the code entered (the key belongs to a vehicle from a different range).
- **The key inserted is blank. Please present another key which has already been programmed to this vehicle:** the key is blank, present a key which has already been coded on this vehicle.

KEY ALLOCATION PROCEDURE

WARNING:

If none of the keys are available, it will be necessary to carry out a reallocation procedure for all keys.

Establish dialogue with the UCH computer.

In the menu **Special commands**, validate the command **SC015 Key allocation**.

Key programming is split into 2 parts:

1. Key insertion stage.
2. Key allocation.

IMPORTANT:

Keys which are not presented will no longer be active and will not be able to be used in the key allocation stage. Restart the procedure to reallocate them.

Switch off the ignition and click on Next.

Ensure that you have all the vehicle's keys. Keys not inserted during this procedure will not work.

IMPORTANT:

Only 2 blank keys are authorised via the key allocation procedure.

Switch on the ignition and insert the key to be allocated.

Switch off the ignition.

The tool asks "**Register another key?**".

To allocate additional keys, switch on the ignition for several seconds with the other vehicle keys to be allocated (three maximum) and then validate.

After each additional key allocation, switch off the ignition.

The tool displays "**Vehicle VIN**".

Enter the vehicle VIN.

Enter the programming key below into Code Management with the vehicle VIN.

IMPORTANT:

You now have **60 minutes** to enter the code provided.
DO NOT DISCONNECT THE DIAGNOSTIC TOOL

Enter the immobiliser code found in Code Management.

The tool displays **Command in progress**.

Insert the key to be allocated. It is important not to leave the previously allocated key in the ignition switch. Switch on the ignition and then validate.

The tool displays **Allocation in progress. Do not remove the key**.

Switch off the ignition after allocation has finished.

Insert the next key to be allocated.

It is important not to leave the previously allocated key in the ignition switch. Switch on the ignition and then validate.

The tool displays **Allocation in progress. Do not remove the key**.

Switch off the ignition after allocation has finished.

The tool displays **End of programming procedure**.

ACCESS – SAFETY

Fault finding – Fault summary table

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Tool fault	Diagnostic tool title
DF180	Decoder -> ring connection
DF272	Coded line circuit
DF274	Electric central locking button

<p>DF180 PRESENT OR STORED</p>	<p><u>DECODER -> RING CONNECTION</u> CC.0: Short circuit to earth CC.1: Short circuit to + 12 V</p>
<p>NOTES</p>	<p>Special note: Use the Wiring Diagrams Technical Note for DUSTER.</p>
<p>CC.0</p>	<p>Check the connection and condition of the transponder ring connector, component code 957. If the connector is faulty and if there is a repair procedure (see Technical Note 6015A (Renault) or Technical Note 9804A (Dacia), Electrical wiring repair, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p> <p>Check the connection and condition of the UCH connector, component code 645. If the connector is faulty and if there is a repair procedure (see Technical Note 6015A (Renault) or Technical Note 9804A (Dacia), Electrical wiring repair, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p> <p>Check the continuity and insulation against earth of the following connections: – 80X between components 645 and 957. If the connection or connections are faulty and if there is a repair procedure (see Technical Note 6015A (Renault) or Technical Note 9804A (Dacia), Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p> <p>If the fault is still present, contact the Techline.</p>
<p>AFTER REPAIR</p>	<p>Follow the instructions. Deal with any other faults. Clear the stored faults.</p>

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DF180 CONTINUED	
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CC.1	<p>Check the connection and condition of the transponder ring connector, component code 957. If the connector is faulty and if there is a repair procedure (see Technical Note 6015A (Renault) or Technical Note 9804A (Dacia), Electrical wiring repair, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p> <p>Check the connection and condition of the UCH connector, component code 645. If the connector is faulty and if there is a repair procedure (see Technical Note 6015A (Renault) or Technical Note 9804A (Dacia), Electrical wiring repair, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p> <p>Check the continuity and insulation to + 12 V on the following connections:</p> <ul style="list-style-type: none"> • 80X between components 645 and 957. <p>If the connection or connections are faulty and if there is a repair procedure (see Technical Note 6015A (Renault) or Technical Note 9804A (Dacia), Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p> <p>If the fault is still present, contact the Techline.</p>
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AFTER REPAIR	<p>Follow the instructions. Deal with any other faults. Clear the stored faults.</p>
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DF272 PRESENT OR STORED	<u>CODED LINE CIRCUIT</u> CC.0: Short circuit to earth CC.1: Short circuit to + 12 V
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NOTES	Special note: Use the Wiring Diagrams Technical Note for DUSTER .
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Check the connection and condition of the injection computer connector, component code **120**.
 If the connector is faulty and if there is a repair procedure (see **Technical Note 6015A (Renault) or Technical Note 9804A (Dacia), Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the connection and condition of the UCH connector, component code **645**.
 If the connector is faulty and if there is a repair procedure (see **Technical Note 6015A (Renault) or Technical Note 9804A (Dacia), Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the **continuity** and **insulation** of the following connection:
 • **H17** between components **645** and **120**.
 If the connection is faulty and if there is a repair procedure (see **Technical Note 6015A (Renault) or Technical Note 9804A (Dacia), Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR	Deal with any other faults. Clear the stored faults.
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DF274 STORED	<u>ELECTRIC DOOR LOCKING BUTTON</u> 1.DEF: (-) button jammed 2.DEF: (+) button jammed
NOTES	The fault is declared stored after activation of the door locking button.
	Special note: Use the Wiring Diagrams Technical Note for DUSTER .
<p>Check the connection and condition of the UCH connector, component code 645 and check the central door locking control connector, component code 123 or the driver's door electric lock connector, component code 140. If the connectors are faulty and if there is a repair procedure (see Technical Note 6015A (Renault) or Technical Note 9804A (Dacia), Electrical wiring repair, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p>	
<p>Check the insulation and continuity of the following connections:</p> <ul style="list-style-type: none">• 20B between components 645 and 123 or 140 without TRF,• 20A between components 645 and 123 or 140 without TRF,• MAN of component 123.• MAM of component 140. <p>If the connection or connections are faulty and if there is a repair procedure (see Technical Note 6015A (Renault) or Technical Note 9804A (Dacia), Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p>	
If the fault is still present, contact the Techline.	

AFTER REPAIR	Follow the instructions. Deal with any other faults. Clear the stored faults.
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ACCESS – SAFETY

Fault finding – Conformity check

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NOTES

Only check conformity after a complete check with **the diagnostic tool**.
The values shown in this conformity check are given as a guide.
Application condition: **engine off, ignition on**.

SUB-FUNCTION: STARTING

Function	Parameter or Status Checked or Action		Display and notes	Fault finding
Supply	ET004:	+ 12 V after ignition feed	YES	In the event of a fault, consult the interpretation of status ET004 (see 87B, Passenger compartment connection unit).
Engine immobiliser	ET184:	Valid key code	YES when the ignition is switched on	In the event of a fault, apply the interpretation of status ET184 .
	ET185:	Key code received	YES when the ignition is switched on	In the event of a fault, apply the interpretation of status ET185 .
	ET549:	Immobiliser active	NO	In the event of a fault, apply the interpretation of status ET549 .
	ET127:	Immobiliser warning light	OFF	In the event of a fault, apply the interpretation of status ET127 (see 87B, Passenger compartment connection unit).
Key	PR056:	Number of keys allocated	2 keys on leaving the factory and programming of up to 4 keys in After-Sales	In the event of a fault, apply the interpretation of parameter PR056 .
Engine immobiliser	AC003:	Immobiliser warning light	This command is used to illuminate the immobiliser warning light	In the event of a fault, apply the procedure for command AC003 (see 87B, Passenger compartment connection unit).

ACCESS – SAFETY

Fault finding – Conformity check

82D

NOTES

Only perform this conformity check after a complete check with the **diagnostic tool**.
The values shown in this conformity check are given as a guide.
Test conditions: **Engine stopped, ignition on.**

SUB-FUNCTION: ACCESS

Function	Parameter or Status Checked or Action		Display and notes	Fault finding
Supply	ET004:	+ 12 V after ignition feed	YES	In the event of a fault, consult the interpretation of status ET004 (see 87B, Passenger compartment connection unit).
Speed	PR008:	Vehicle speed	X in mph (km/h)	In the event of a fault, run a test on the computer which gives the vehicle speed signal (see 83A Instrument panel).
Opening elements	ET489:	Front doors	OPEN when opening a front door. CLOSED if the doors are closed.	In the event of a fault, apply the interpretation of status ET489 (see 87B, Passenger compartment connection unit).
	ET551:	Rear doors or luggage compartment	OPEN when opening a rear door or the luggage compartment lid. CLOSED if the doors are closed.	In the event of a fault, apply the interpretation of status ET551 (see 87B, Passenger compartment connection unit).
Unlocking command	AC005:	Opening element unlocking	This command is used to test whether the 4 doors and the tailgate unlocking function is operating correctly	In the event of a fault, refer to the procedure for command AC005 (see 87B, Passenger compartment connection unit).
Central door locking	AC136:	Central door locking buzzer	This command is used to test the UCH buzzer	If the fault is still present, contact Techline.
Locking command	AC004:	Central door locking	This command is used to test whether central door locking is working	In the event of a fault, refer to the procedure for command AC004 (see 87B, Passenger compartment connection unit).

STATUS TEST

It is possible to determine the fault on a vehicle by means of the various pieces of information provided by checking the statuses.

ET004: + 12 V after ignition

ET185: Key code received

ET184: Key code valid

ET549: Immobiliser active

If **ET004** status **YES**
ET185 status **YES**
ET184 status **YES**
ET549 status **NO**

Check the injection system using the diagnostic tool and make sure that the injection computer is not locked. Check the dialogue between the UCH and the injection computer

If **ET004** status **YES**
ET185 status **YES**
ET184 status **NO**
ET549 status **YES**

The coded key does not belong to the vehicle. If the key does belong to the vehicle, reallocate the keys. If the key still does not work, replace the key.

If **ET004** status **YES**
ET185 status **NO**
ET184 status **NO**
ET549 status **YES**

The key is out of order or does not correspond with the type of vehicle.

ACCESS – SAFETY

Fault finding – Status summary table

82D

Tool status	Diagnostic tool title
ET184	Valid key code
ET185	Key code received
ET549	Immobiliser active

AFTER REPAIR

Carry out another fault finding check on the system.
Deal with any other faults.
Clear the **stored** faults.

ET184	<u>KEY CODE VALID</u>
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NOTES	<p>The status is YES when the ignition is switched on (+ after ignition feed) using a key for the vehicle.</p> <p>If the state remains NO, try another key assigned to the vehicle before performing any operation.</p>
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ET184: NO despite the ignition being switched on, a key that belongs to the vehicle and the key code received (ET185 YES).

Check that status **ET004 + 12 V After ignition feed** is **YES** with the ignition on.

Re-allocate the keys with the After-Sales code using the scenario **SC015 Key allocation**.
If the fault persists, replace the faulty vehicle key.

AFTER REPAIR	<p>Carry out another fault finding check on the system.</p> <p>Deal with any other faults.</p> <p>Clear the stored faults.</p>
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UCH_V09_ET184

ET185	<u>KEY CODE RECEIVED</u>
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NOTES	<p>Check that no fault is present or stored. The status is YES when the ignition is switched on (+ after ignition feed) with a valid key. If the state remains NO, try another key assigned to the vehicle before performing any operation.</p>
	<p>Special note: Use the Wiring Diagrams Technical Note for DUSTER.</p>

ET185: NO with ignition on and a key that belongs to the vehicle.

Check that status ET004 + 12 V After ignition feed is YES with the ignition on.
Remove any metal objects from the key-ring and try again.
<p>Switch on the ignition with the key from another vehicle, changing the key inserts:</p> <p>If status KEY CODE RECEIVED changes to YES, replace the vehicle key.</p> <p>If status KEY CODE RECEIVED remains NO:</p> <p>Check the condition and connection of the connectors of the transponder ring, component code 957 and of the UCH, component code 645. If the connector is faulty and if there is a repair procedure (see Technical Note 6015A (Renault) or Technical Note 9804A (Dacia), Electrical wiring repair, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.</p> <p>Check the continuity, insulation and the absence of interference resistance of the following connections:</p> <ul style="list-style-type: none"> • AP10 between components 957 and 645, • NC between components 957 and 645. <p>If the connection or connections are faulty and if there is a repair procedure (see Technical Note 6015A (Renault) or Technical Note 9804A (Dacia), Electrical wiring repair, Wiring: Precautions for repair), repair the wiring, otherwise replace it.</p> <p>If the problem persists, replace the transponder ring.</p>

AFTER REPAIR	<p>Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.</p>
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UCH_V09_ET185

ET549	<u>ENGINE IMMOBILISER ACTIVE</u>
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NOTES	<p>The immobiliser active status should change to inactive when the + after ignition is switched on.</p> <p>The immobiliser status should be active when the key is absent from the ignition switch.</p>
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ET549: YES despite the presence of a key in the ignition switch and + after ignition feed

Check that there is no fault before dealing with this status.

Check that status **ET004 + 12 V After ignition feed** is **YES** with the ignition on.
Deal with status **ET004** if it is **NO** with the ignition on.

Check status **ET185 Key code received** and status **ET184 Key code valid** with the ignition on.
If statuses **ET185** and **ET184** are **YES**, perform fault finding on the injection computer.
If status **ET185** is **NO**, deal with this status first.
If status **ET185** is **YES** and status **ET184** is **NO**, deal with status **ET184** first.

If the fault is still present, contact the Techline.

AFTER REPAIR	<p>Carry out another fault finding check on the system.</p> <p>Deal with any other faults.</p> <p>Clear the stored faults.</p>
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UCH_V09_ET549

Tool Parameter	Diagnostic tool title
PR056	Number of keys allocated

PR056	<u>NUMBER OF KEYS ALLOCATED</u>
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NOTES	Check that no fault is present .
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This parameter indicates the number of keys allocated to the vehicle.
The maximum number of allocated keys is 4.

In the event of a fault, perform fault finding on the UCH (see **87B, Passenger compartment connection unit**).

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.
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UCH_V09_PR056

Tool command	Diagnostic tool title
AC004	Central door locking
AC005	Central door unlocking
SC003	Spare
SC015	Key allocation

AC004	<u>OPENING ELEMENT LOCKING</u>
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NOTES	There must be no present or stored faults. This command is for testing locking relay operation. This command lasts for 2 seconds .
	Special note: Use the Wiring Diagrams Technical Note for DUSTER .

Check the condition and the connection of the UCH connector, component code **645** (see **MR 451, Mechanical, 87B, Passenger compartment connection unit**).

If the connector is faulty and if there is a repair procedure (see **Technical Note 6015A (Renault) or Technical Note 9804A (Dacia), Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the condition and connection of the connectors of the following faulty lock(s): the rear right-hand door electric lock, component code **138**, the rear left-hand door electric lock, component code **139**, the driver's door electric lock, component code **140**, the passenger door electric lock, component code **141**, the boot lid electric lock, component code **142**.

If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A (Renault) or Technical Note 9804A (Dacia), Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

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

- **20C** between components **138** and **645**,
- **20C** between components **139** and **645**,
- **20C** between components **140** and **645**,
- **20C** between components **141** and **645**,
- **20C** between components **142** and **645**.

If the connection or connections are faulty and if there is a repair procedure (see **Technical Note 6015A (Renault) or Technical Note 9804A (Dacia), Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.
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UCH_V09_AC004

AC005	<u>OPENING ELEMENT UNLOCKING</u>
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NOTES	There must be no present or stored faults. This command is for testing locking relay operation. This command lasts for 2 seconds .
	Special note: Use the Wiring Diagrams Technical Note for DUSTER .

Check the condition and the connection of the UCH connector, component code **645** (see **MR 451, Mechanical, 87B, Passenger compartment connection unit**).

If the connector is faulty and if there is a repair procedure (see **Technical Note 6015A (Renault) or Technical Note 9804A (Dacia), Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the condition and connection of the connectors of the following faulty lock(s): the rear right-hand door electric lock, component code **138**, the rear left-hand door electric lock, component code **139**, the driver's door electric lock, component code **140**, the passenger door electric lock, component code **141**, the boot lid electric lock, component code **142**.

If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A (Renault) or Technical Note 9804A (Dacia), Electrical wiring repair, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

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

- **20D** between components **138** and **645**,
- **20D** between components **139** and **645**,
- **20D** between components **140** and **645**,
- **20D** between components **141** and **645**,
- **20D** between components **142** and **645**.

If the connection or connections are faulty and if there is a repair procedure (see **Technical Note 6015A (Renault) or Technical Note 9804A (Dacia), Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.
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UCH_V09_AC005

SC003	<u>SPARE</u>
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Equipment required
CLIP

This command is used to recover a code which will allow the Techline to supply the After-Sales code.

Recovery procedure for Reserve code:

- Establish dialogue with the UCH.
- Select the menu **Repair mode**.
- Select the menu **Programming**.
- Select the line **SC003 Spare**.

Follow the instructions on the **Clip diagnostic tool**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.
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UCH_V09_SC003

Fault finding – Interpretation of commands

SC015

ALLOCATE KEY

Equipment required

CLIP

This key allocation operation enables you to assign keys to the vehicle.

To add one or more keys, replace one or more keys, de-allocate one or more keys (in the event of theft for example).

IMPORTANT

It is not possible to allocate more than two blank keys per operation.

If more than two keys must be allocated: program 2 blank keys then repeat the procedure with all the keys.

Before starting this operation, check that there are no components likely to interfere with the electromagnetic field (for example: CB (Citizen Band), mobile phones, etc.).

WARNING

If not all of the keys are available, all the keys will have to be reallocated. Keys not inserted will no longer be allocated to this vehicle.

WARNING

The only keys which can be submitted are those ordered for the vehicle concerned, or the vehicle's old keys.

IMPORTANT

Do not interrupt the procedure when it is in progress.

If it is interrupted, restart the procedure in "not connected mode"; a new programming key will be displayed.

The UCH must **not be blank** in order to be able to program keys.

With this system it is not possible to replace some components, such as the UCH and the key as these parts are sold blank and uncoded.

AFTER REPAIR

Carry out another fault finding check on the system.

Deal with any other faults.

Clear the **stored** faults.

UCH_V09_SC015

SC015 CONTINUED

IMPORTANT

When the programming operation is complete, only remove the key once the **Remove key** message is displayed on the screen. Otherwise the programming operation fails and the key will be unusable.

WARNING

When the tool issues the programming key, the user has a limited time in which to enter the immobiliser code. If the time has elapsed, the CLIP tool displays the message: **Time elapsed. Restart the procedure.**

Key allocation procedure

- Establish dialogue with the UCH.
- Select the menu **Repair mode**.
- Select the menu **Programming**.
- Select line **SC015 Allocate key**.

The procedure for allocating keys is divided in two parts:

1. Key insertion stage.
2. Key allocation stage.

1- Key insertion stage

Clip requires that the keys to be allocated are inserted.

Insert ALL the keys to be allocated (old and new blank keys). Any keys not inserted at this stage will be rejected at the **Key allocation** stage and the operation will have to be restarted from the beginning.

Once all the keys are inserted, the **Clip diagnostic tool** displays the programming key in "not connected" mode.

To obtain the immobiliser code, (see **Technical Note 5037A, Code delivery procedure**).

IMPORTANT

In "not connected" mode, the programming key can only be used for a limited amount of time, as indicated by the **CLIP diagnostic tool**. After this time, the programming key and associated immobiliser code are no longer valid. The operation must be restarted from the beginning.

2- Key allocation stage:

Continue the procedure following the instructions on the **Clip diagnostic tool**.

Once the keys have been allocated, make sure that all the keys can lock and start the vehicle.

AFTER REPAIR

Carry out another fault finding check on the system.
Deal with any other faults.
Clear the **stored** faults.

NOTES	Only refer to these customer complaints after carrying out a complete check with the diagnostic tool
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Starting fault

The vehicle will not start	→	ALP 9
The opening elements locking/unlocking button indicator light does not illuminate	→	ALP 10
The locking/unlocking button indicator light remains lit	→	ALP 11
The electric locking/unlocking command of the doors operates erratically	→	ALP 12

ALP 9

The vehicle will not start

NOTES

Only refer to the customer complaints after performing a complete check using the diagnostic tool.

Use the **Wiring Diagrams Technical Note for DUSTER**.

Switch on the ignition. Has the immobiliser warning light gone out?

NO

A

YES

Turn the starter.

Nothing happens.

B

The starter clicks but the engine does not turn over.

C

The starter motor turns but there is no engagement.

D

The engine turns but does not start.

Perform an **injection** domain test using the diagnostic tool. See **13B, Diesel Injection or 17B, Petrol Injection**.

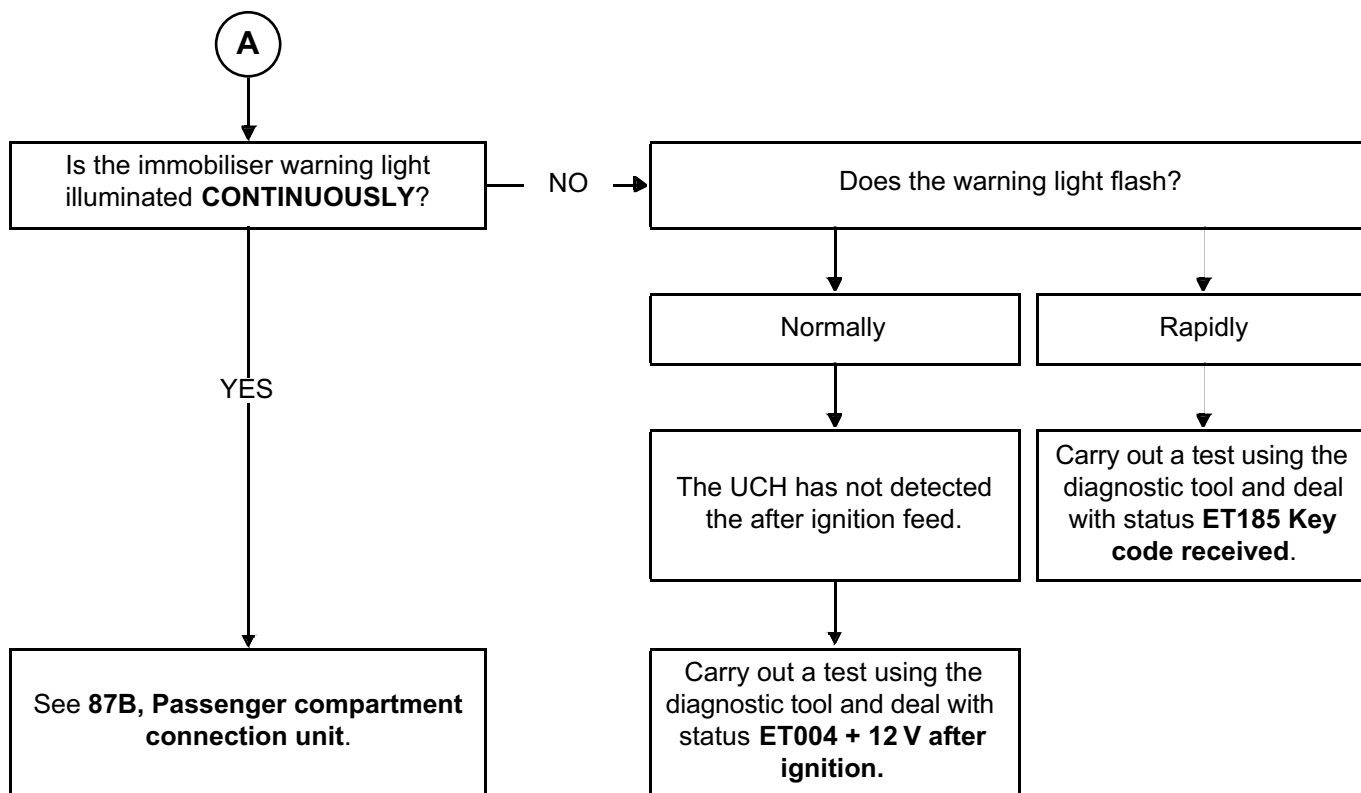
The engine turns over progressively more slowly and does not start.

Check the battery voltage. Check the condition of the starter.

AFTER REPAIR

Carry out a complete check with the **diagnostic tool**.

ALP 9 CONTINUED 1



AFTER REPAIR

Carry out a complete check with the **diagnostic tool**.

**ALP 9
CONTINUED 2**

B

Check the battery voltage with the starter motor activated and the + starter supply.

Check the condition of the starter exciter terminal. Repair if necessary.
Check for **+ 12 V** at the starter excitation terminal, when the starter is activated.
Repair if necessary (ignition switch supply, correct operation of the ignition switch and ignition switch/starter connection).

If the fault is still not resolved, check that the starter motor is operating correctly. Replace the starter if necessary (see **MR 451, Mechanical, 16A, Starting - Charging, Starter: Removal - Refitting**).

AFTER REPAIR

Carry out a complete check with the **diagnostic tool**.

**ALP 9
CONTINUED 3**

C

Check the battery **voltage** when the starter is turning and check the earth straps connecting the engine and transmission assembly to the vehicle chassis.

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

- **B** between components **163** and **107**,
- **D** between components **107** and **104**.

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

Check that the starter motor has not seized or locked.

If the fault is still present, replace the starter (see **MR 451 Mechanical, 16A, Starting - Charging, Starter: Removal - Refitting**).

AFTER REPAIR

Carry out a complete check with the **diagnostic tool**.

**ALP 9
CONTINUED 4**

D

Check that the starter operates correctly.
Replace the starter if necessary (see **MR 451, Mechanical, 16A, Starting - Charging, Starter: Removal - Refitting**).

If the fault is still present, check the timing belt (see **MR 451 Mechanical, 11A, Top and front of engine, Timing belt: Removal - Refitting**).

AFTER REPAIR

Carry out a complete check with the **diagnostic tool**.

ACCESS – SAFETY

Fault finding – Fault location chart

82D

ALP 10	The opening elements locking/unlocking button indicator light does not illuminate
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NOTES	Only refer to the customer complaints after performing a complete check using the diagnostic tool.
	Use the Wiring Diagrams Technical Note for DUSTER .

Set the stalk to the side lights position.
Check for the presence and condition of fuse F19 (10A) for left-hand drive, or F18 (10A) for right-hand drive on component 1016 . Replace the fuses if the checks are not correct.
Check the condition and connection of the connectors of the central door locking switch, component code 123 and of the passenger compartment fuse box, component code 1016 . If the connectors are faulty and if there is a repair procedure (see Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair), repair the connector, otherwise replace the wiring.
Check the LED status with another supply and another earth.
Check the continuity of the following connections: <ul style="list-style-type: none">• LPD between components 123 and 1016 (for a left-hand drive vehicle).• LPG between components 123 and 1016 (for a right-hand drive vehicle).• MAN between components 123 and earth. If the connection or connections are faulty and 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 the Techline.

AFTER REPAIR	Carry out a complete check with the diagnostic tool .
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ACCESS – SAFETY

Fault finding – Fault location chart

82D

ALP 11	The opening elements locking/unlocking button indicator light remains lit
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NOTES	Only refer to the customer complaints after performing a complete check using the diagnostic tool.
	Use the Wiring Diagrams Technical Note for DUSTER .

Set the stalk to position 0.

Check the **condition** and **connection** of the connectors of the central door locking switch, component code **123** and of the passenger compartment fuse box, component code **1016**.

If the connectors are faulty and if there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the connector, otherwise replace the wiring.

Check the insulation to **+ 12V** feed of the following connection:

- **LPD** between components **123** and **1016** (for a left-hand drive vehicle).
- **LPG** between components **123** and **1016** (for a right-hand drive vehicle).

If the connection or connections are faulty and 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 the Techline.

AFTER REPAIR	Carry out a complete check with the diagnostic tool .
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ALP 12	The electric door locking/unlocking control operates erratically
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NOTES	Only refer to the customer complaints after performing a complete check using the diagnostic tool.
	Use the Wiring Diagrams Technical Note for DUSTER .

Check the **connection and condition of the UCH connector**, component code **645** and check the **electric door locking** control connector, component code **123**.

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

For locking:

Check the **continuity and the insulation** of the following connections:

- **20A** between components **123** and **645**,
- **MAN** between components **123** and **earth**.

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

For unlocking:

Check the **continuity and the insulation** of the following connections:

- **20B** between components **123** and **645**,
- **MAN** between components **123** and **earth**.

If the connection or connections are faulty and 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 the Techline.

AFTER REPAIR	Carry out a complete check with the diagnostic tool .
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