TWINGO

8 Electrical equipment

87B PASSENGER COMPARTMENT CONNECTION UNIT

UCH
Vdiag No.: 44

V5 **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. SCOPE OF THIS DOCUMENT

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

Vehicle(s): **New Twingo** *Function concerned:* **Passenger compartment connection unit**	*Name of computer:* **UCH** *Vdiag No.:* **44**

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 (CD-ROM), paper.

Type of diagnostic tools

– CLIP

Special tooling required

Special tooling required	
Multimeter	
Elé. 1681	**Universal bornier**

3. REMINDER

To run fault finding on the vehicle computers, switch on the ignition.

- Switch on the ignition with the key.
- Connect the **diagnostic tool** and perform the required operations.

To cut off the + after ignition feed, proceed as follows:

- Switch off the ignition with the key.
- Disconnect the **diagnostic tool**.
- Switch off the ignition.

Faults

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

The **present** or **stored** status of faults should be taken into consideration when the **diagnostic tool** is used following the + after ignition supply being switched on (without operating 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 instructions in the **Notes** section.

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

If the fault is **not confirmed**, check:
– the electrical lines which correspond to the fault,
– the connectors for these lines (for oxidation, bent pins, etc.),
– the resistance of the component detected as faulty,
– the condition of the wires (melted or split insulation, wear).

Conformity check

The aim of the conformity check is to check data that does not produce a fault on the **diagnostic tool** because 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 repairs.

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

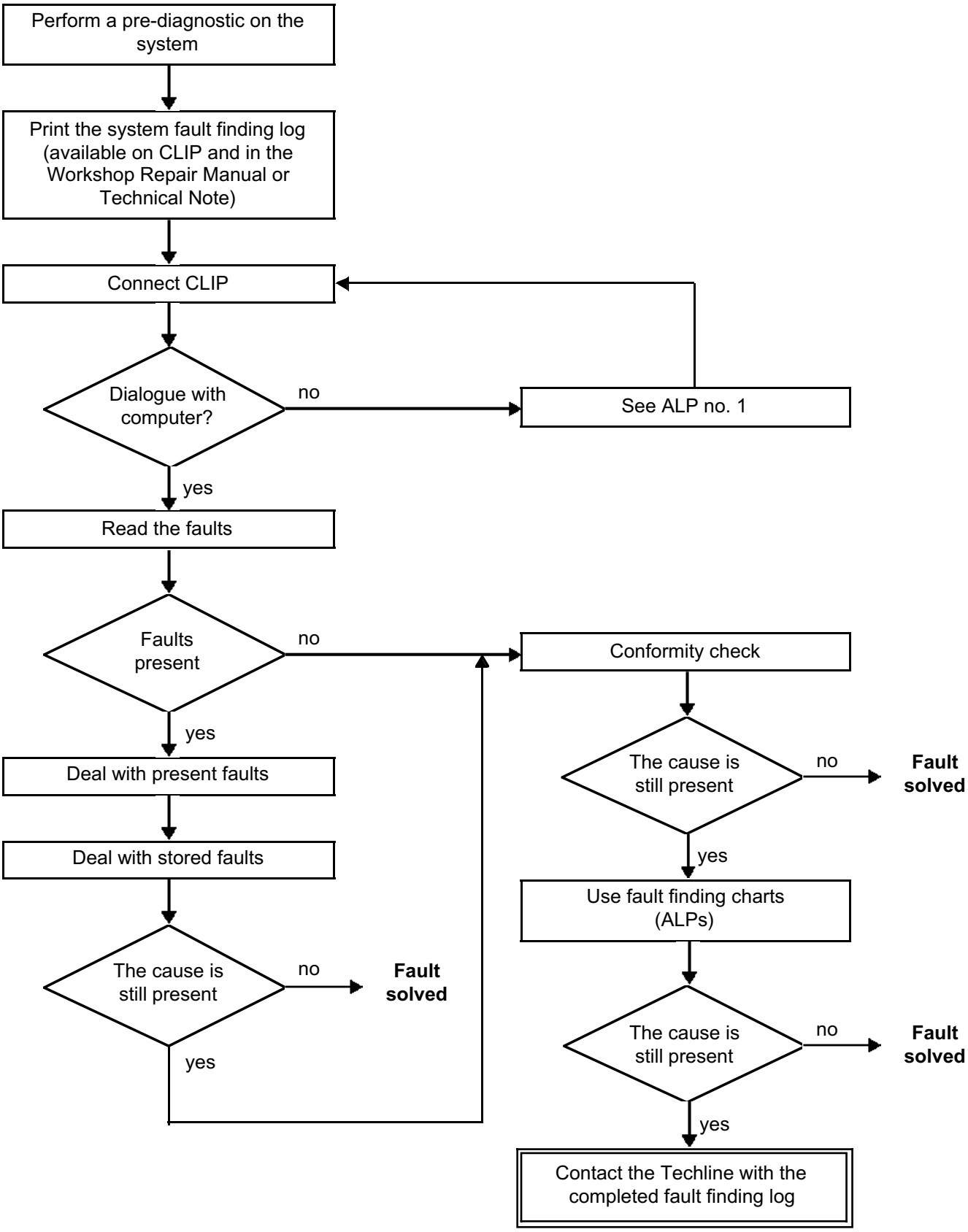
If a status is not behaving normally or a parameter is outside the permitted tolerance values, consult the corresponding fault finding page.

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



4. FAULT FINDING PROCEDURE (continued)

Wiring check

Fault finding problems
Disconnecting the connectors and/or manipulating the wiring harness may temporarily remove the cause of a fault.
Electrical measurements of voltage, resistance and insulation are generally correct, especially if the fault is not present when the analysis is made (stored fault).

Visual inspection
Look for damage under the bonnet and in the passenger compartment.
Carefully check the fuses, insulators and wiring harness routing.
Look for signs of oxidation.

Tactile inspection
While manipulating the wiring harness, use the **diagnostic tool** to note any change in fault status from stored to present.
Make sure that the connectors are properly locked.
Apply light pressure to the connectors.
Twist the wiring harness.
If there is a change in status, try to locate the source of the fault.

Inspection of each component
Disconnect the connectors and check the appearance of the clips and tabs, as well as the crimping (no crimping on the insulating section).
Make sure that the clips and tabs are properly locked in the sockets.
Check that no clips or tabs have been dislodged during connection.
Check the clip contact pressure using an appropriate model of tab.

Continuity, insulation and resistance check
Check the continuity of entire lines, then section by section.
Look for a short circuit to earth, to **+ 12 V** or to another wire.

If a fault is detected, repair or replace the wiring harness.

5. FAULT FINDING LOG

IMPORTANT

IMPORTANT
Any fault on a complex system requires thorough fault finding with the appropriate tools. The FAULTFINDING LOG, which should be completed during the procedure, enables you to keep track of the procedure which is carried out. It is an essential document when consulting the manufacturer.

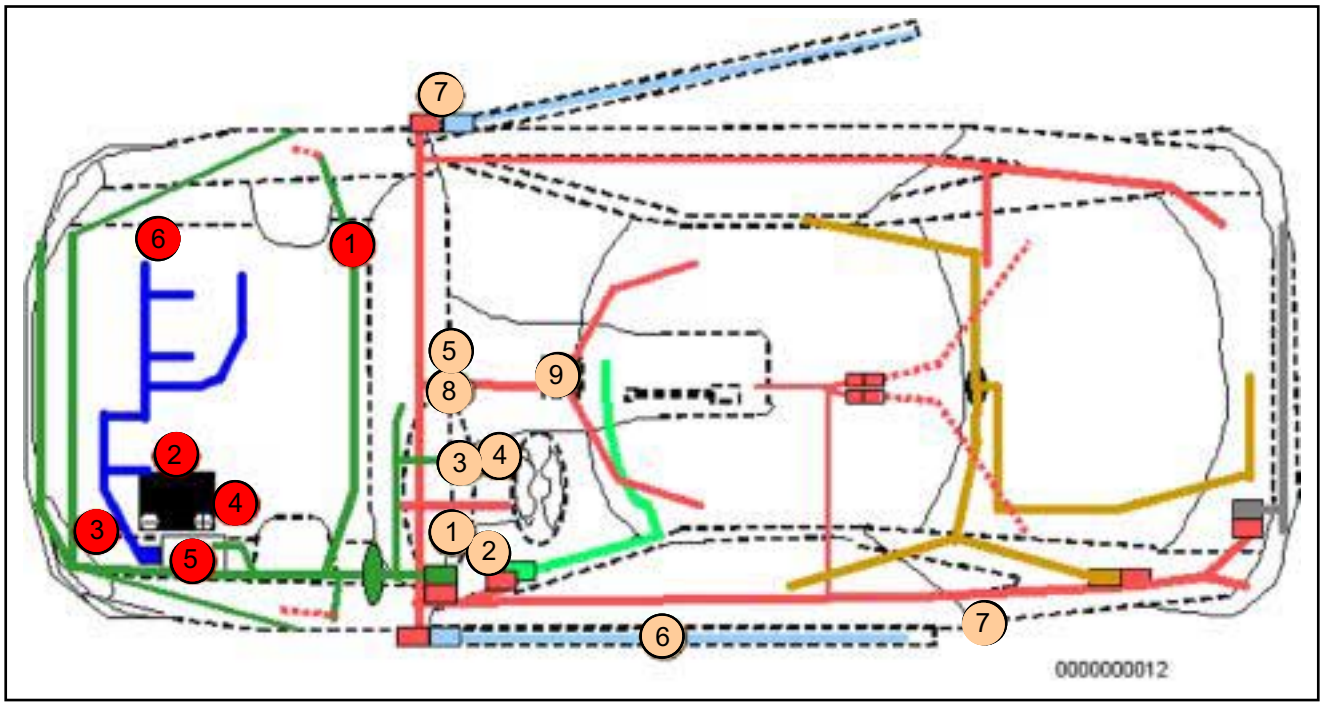
IT IS THEREFORE ESSENTIAL THAT THE FAULT FINDING LOG IS FILLED OUT EVERY TIME IT IS REQUESTED BY TECHLINE OR THE WARRANTY RETURNS DEPARTMENT

You will always be asked for this log:
- when requesting technical assistance from the Techline,
- for approval requests when replacing parts for which approval is obligatory
- 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.

6. SAFETY ADVICE

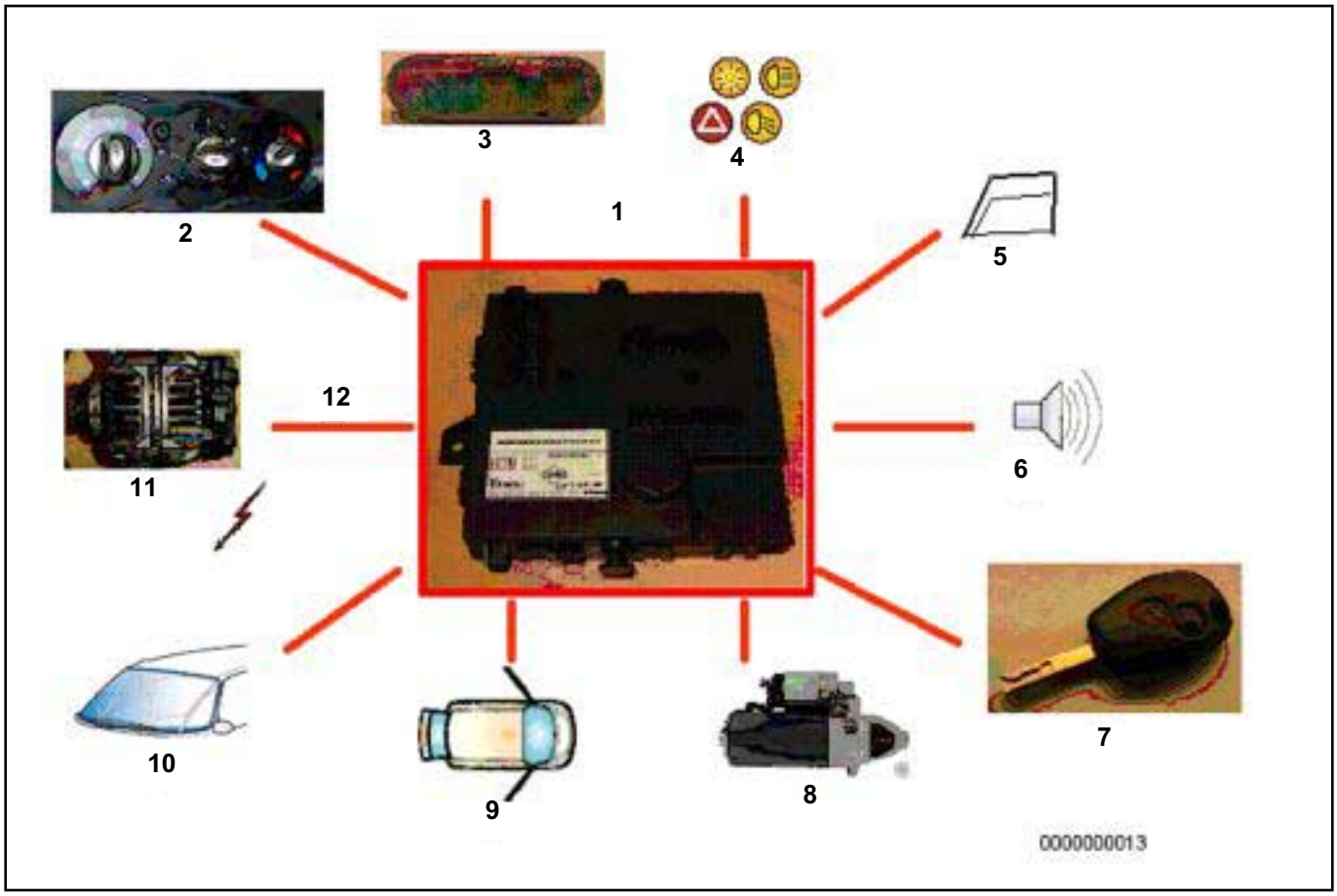
Safety rules must be observed during any work on a component to prevent any damage or injury:
- check the battery voltage to avoid incorrect operation of computer functions,
- Use the proper tools.

ENGINE HARNESS
FRONT ENGINE WIRING & ADDITIONAL HEADLIGHTS
DOOR WIRING
CEILING WIRING
PASSENGER COMPARTMENT WIRING
REAR BUMPER WIRING
TAILGATE WIRING



1	UCH
2	Passenger Compartment Relay/Fuse Box
3	Electric power-assisted steering.
4	Transponder ring.
5	Air conditioning panel.
6	One touch window/anti-pinch module.
7	Exterior temperature sensor.
8	Rain/light sensor & interior temperature sensor.
9	Anti-pinch/sunroof.

2	ABS computer.
2	Injection computer.
3	Preheating unit.
4	Sequential gearbox computer.
5	Engine fuse and relay box.
6	Alternator.



1 UCH.
2 Air conditioning.
3 Interior lighting.
4 Exterior lighting, signals.
5 One touch windows and electric sunroof.
6 Alarm.
7 Radiofrequency key.
8 Starter.
9 Opening elements.
10 Front/rear wipers, washers.
11 Alternator.
12 BSS* connection

*BSS: **(see Role of components, Role of connection BSS)**.

GENERAL OPERATION

The UCH is involved in the following five functions (shared between several computers):

– Access-security function
This function is divided into three sub-functions: Access, Protection and Starting (see **82D, Access - Safety**).

– Air heating and manual air conditioning function
This function is divided into four sub-functions, which are: User selection, Heating, Cold loop and Passenger compartment ventilation (see **61A, Heating** and **see 62C, Manual air conditioning**).

In this function, the UCH manages the heated rear screen operation indicator lights, heating controls and air conditioning activation requests, by sending requests to the engine management computer:
– In the case of a vehicle fitted with manual air conditioning, by pressing on the air conditioning button.
– In the case of a vehicle fitted with climate control, by request from the user or the climate control computer in automatic mode.

– Wiping function
This function is divided into two sub-functions, which are: Wiper control and Wiper power (see **85A, Wiping-washing**).

– Lighting Function
This function is divided into two sub-functions, which are: Lighting control and Lighting power (see **80D, Lighting**).

– Energy management function

Note: There is no UPC on this vehicle; this function is managed by the UCH**.**

The system is composed of the UCH which stores the programming for electrical energy management, the starter, the battery, and the alternator controlled via a BSS connection.

The role of this system is:

- to ensure electrical energy is supplied to the vehicle whilst respecting the dynamic performance constraints of the engine and transmission assembly,
- to control alternator loading* and load shedding** during engine management authorisation or variation of the electrical load,
- to ensure the quality of the on board network voltage in terms of the voltage level and variation,
- to optimise the battery charge by applying a voltage to its terminals correlating to its initial charge status (in sleep mode) and to its internal temperature,
- to inform the engine management about the mechanical power taken from the accessories pulley, the alternator charge rate and the rotor excitation current value,
- to run fault finding on the charging circuit: “Battery” warning light display.

***loading:** This operation consists of transferring control of the vehicle's electrical consumption from the battery to the alternator.
****load shedding:** This operation consists of involving the battery in the vehicle's general electric power balance.

– Energy management function

Role of BSS connection:
This bidirectional connection located between the UCH and the alternator circulates the following signals:

– Signals sent by the alternator: rotor current value, alternator charge value and electrical, thermal and mechanical fault statuses.
– Signals sent by the UCH to the alternator: voltage setpoint, rail setpoint and rail inhibition.

Role of the DF terminal:

The signal circulating in the DF terminal is the alternator charge signal (displayed using PR073 "Alternator charge signal") which is used to adapt the alternator supply to the demands of the electrical consumers (such as the passenger compartment heating resistors, heated rear screen, etc.).

Depending on the battery charge status, the operating phase and the battery temperature, the UCH determines what the voltage across the battery terminals should be.

When the battery charge drops, and **PR076 Battery voltage after rest** decreases, the UCH can temporarily increase **PR075 Alternator setpoint voltage** by **1 V** for a period of **15 minutes** after switching on **+ after ignition feed**.
Before and during starting, **PR075 Alternator setpoint voltage** is fixed at **10.7 V**.
A maximum of **30 seconds** after the engine has started, the UCH sets **PR075 Alternator setpoint voltage** to the optimum value calculated.
The injection computer can also control the alternator regulation voltage. The injection computer sends the maximum authorised power delivered by the engine, to the UCH via the multiplex network. If this power supplied by the engine is less than the power consumed by the alternator, the UCH reduces the **PR075 Alternator setpoint voltage.**

Note:
At the time of user activation, if the mileage is less **than 12 miles (20 kms)** the charge status is used to display a warning: this ensures that vehicles are delivered with correct batteries.

The battery warning light will flash if a low battery charge is detected (no-load voltage less than **12.2 V**: voltage measured during technical use) for the first 12 miles (20 kms), then the warning light stops flashing. Also, the magic eye of the battery (the hydrometer) is black.

– **Access - Security function** (see **82D, Access - Security, Role of components**).

– **Heating and manual air conditioning function** (see **61A, Heating, Role of components** and **62C, Manual air conditioning, Role of components**).

– **Wiping function** (see **85A, Washing wiping, Role of components**).

– **Lighting function** (see **80D, Lighting, Role of components**).

Functions managed by the different UCH ranges on the New Twingo:

	L1 Entry level	**L2** Mid-range	**L3** Top of the range
UCH reprogramming	**X**	**X**	**X**
Multiplex connection	**X**	**X**	**X**
Fault finding	**X**	**X**	**X**
Access - Protection	**X**	**X**	**X**
Transponder key	**X**		
Transponder and radiofrequency key		**X**	**X**
Engine immobiliser	**X**	**X**	**X**
+ Accessories feed control	**X**	**X**	**X**
Alarm management (predisposition)		**X**	**X**
Locking and unlocking using electric central door locking button		**X**	**X**
Deadlocking			**X**
Locking when driving (CAR*)		**X**	**X**
Automatic unlocking (in the event of impact)		**X**	**X**
Engine thermal protection	**X**	**X**	**X**
Automatic re-locking		**X**	**X**
One-touch electric windows			**X**
Tailgate electric lock	**X**	**X**	**X**
Tailgate opening switch	**X**	**X**	**X**
Tailgate locking switch (with key)	**X**		
Air conditioning			
Electric heated rear screen management	**X**	**X**	**X**
Air conditioning request management		**X**	**X**
Automatic climate control management (via CAN network)		**X**	**X**
External temperature management		**X**	**X**

* CPE: Electric central door locking
* CAR: Automatic locking when driving

CONTINUED (Functions managed by the different UCH ranges on the New Twingo):

	L1 Entry level	**L2** Mid-range	**L3** Top of the range
Lighting			
Exterior lighting			
Side, dipped beam, headlights			**X**
Direction indicators and hazard warning lights	**X**	**X**	**X**
One-touch front fog lights			**X**
One-touch rear fog lights			**X**
Lights on warning light	**X**	**X**	**X**
Hazard warning lights when decelerating hard	**X**	**X**	**X**
Illumination of hazard warning lights when airbag triggered	**X**	**X**	**X**
Illumination of indicators when locking/unlocking		**X**	**X**
Automatic lighting when driving and stationary			**X**
Delayed extinction of headlights when stationary			**X**
Daytime running lights on			**X**
Lights switch off when driver's door opened			**X**
Interior lighting			
Interior lights supply (no gradual dimming function)	**X**		
Interior lights supply (gradual dimming)		**X**	**X**
Wipers			
Windscreen wipers management	**X**	**X**	**X**
Automatic management of front wipers with rain sensor			**X**
Rear wipers	**X**	**X**	**X**
Windscreen and rear screen washers	**X**	**X**	**X**
Energy management			
Starter management	**X**	**X**	**X**
Controlled alternator (BSS connection)	**X**	**X**	**X**

When replacing the UCH (see **MR 411, Mechanical systems, 87B, Passenger compartment connection unit**).

If replacing the computer, carry out the programming and configuration operations described (see **configurations and programming**).

The order of programming and configuration operations is as follows:

1 - Write the VIN, using command **VP004 Write VIN**.

2 - Program the UCH using command **SC004 UCH programming**.

3 - Configuration of the UCH (in the Configuration and programming menu) using the following commands:

CF031 Calibration,
CF019 Type of heating and air conditioning system,
CF028 Engine type,
CF171 Temperature display,
CF029 External temperature sensor,
CF173 One-touch windows/sunroof (SR)*.
CF032 See-me-home lighting,
CF021 Front fog lights,
CF014 Daytime running lights
CF193 Automatic headlight function,
CF194 Automatic wiping function,
CF035 Rain/light sensor,
CF191 Wiper intermittent speed ring,
CF024 Hazard warning lights activated by ABS,
CF108 Locking via the RAID,
CF009 Deadlocking,
CF192 Central door locking,
CF195 Type of key,
CF229 Alarm.

4 - Key allocation, using command **SC015 Key allocation**.

5 - Configuration of the multiplex network is used to define (in the UCH) the different computers present and which support fault finding on the multiplex network.

*** TO: Sunroof.**

SC004	PROGRAMMING THE UCH

Equipment required
CLIP

Use this command only with a new and blank UCH.

A new UCH is not coded and is therefore not assigned to the vehicle; once it is fitted on the vehicle, it must be programmed to assign it to the vehicle.

To carry out this programming, always use **a key belonging to the vehicle** (allocated to the old UCH).

There are two programming methods: "Not connected" to the code server mode and "connected" to the code server mode.
- In "not connected" mode, the CLIP diagnostic tool supplies a programming key and the user enters the immobiliser code.
- In "connected" mode, the CLIP diagnostic tool automatically exchanges the programming key and the immobiliser code.

Before starting this operation, make sure that there are no components capable of interfering with the electromagnetic field (e.g.: CB (Citizen Band), mobile phone, etc.).

Note:
After replacing just the UCH, no operation needs to be carried out on the injection and electric power-assisted steering computers.
The computers keep the same immobiliser code.

IMPORTANT
When the UCH programming procedure is successfully completed, the UCH is no longer blank and is permanently assigned to the vehicle. It will not work on another vehicle.

IMPORTANT
When the programming operation is complete, only remove the key once the **Programming complete** message is displayed on the screen. Otherwise, programming has failed and the UCH cannot be used.

IMPORTANT
In "not connected" mode, once the tool has issued the programming key, the user has a limited amount of time in which to enter the immobiliser code.
If this time expires, the CLIP diagnostic tool displays the message "Time expired. Restart the procedure".

IMPORTANT
In "connected" mode, the exchange of the programming key and the entry of the immobiliser code is done automatically. If the connection parameters are not met, "connected" mode switches automatically to "not connected" mode.

SC004 CONTINUED	

IMPORTANT
Do not interrupt the procedure when it is in progress.
If it is interrupted, restart the procedure; a new programming key will be displayed.

UCH programming procedure
– Establish dialogue with the UCH.
– Select the **"Repair mode"** menu.
– Select the **Secure programming** menu.
– Select line **SC004 Program UCH**.

Follow the instructions on the **CLIP diagnostic tool**.
In "not connected" mode, when the **CLIP diagnostic tool** displays the programming key, make a note of this key and the VIN.
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.

Operations to be carried out after programming the UCH
➡ Enter the vehicle's VIN to the computer using command **VP004 Enter VIN**.
Make sure that all the keys can lock and start the vehicle.
➡ After programming the UCH, allocate all the keys using command **SC015 Allocate key**.
➡ Configure the equipment as present or not present on the vehicle using the commands (see **Configurations and Programming**).

SC015	KEY ALLOCATION

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).

There are two programming methods: "Not connected" to the code server mode and "connected" to the code server mode.
- In "not connected" mode, the CLIP diagnostic tool supplies a programming key and the user enters the immobiliser code.
- In "connected" mode, the CLIP diagnostic tool automatically exchanges the programming key and the immobiliser code.

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, make sure that there are no components capable of interfering with the electromagnetic field (e.g.: CB (Citizen Band), mobile phone, etc.).

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

WARNING
Only cards which have been ordered for the vehicle concerned or the vehicle's old cards can be inserted.

Only a **non blank** UCH can be programmed with 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.

IMPORTANT
When the programming operation is complete, only remove the key once the **Remove the key** message is displayed on the screen. Otherwise the programming operation has failed 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**.

SC015 CONTINUED	

IMPORTANT
In "not connected" mode, once the tool has issued the programming key, the user has a limited amount of time in which to enter the immobiliser code.
If this time expires, the CLIP diagnostic tool displays the message "Time expired. Restart the procedure".

IMPORTANT
In "connected" mode, the exchange of the programming key and the entry of the immobiliser code is done automatically.
If the connection parameters are not met, "connected" mode switches automatically to "not connected" mode.

Key allocation procedure

– Establish dialogue with the UCH
– Select the **Repair mode** menu
– Select the **Secure programming** menu
– 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 requests 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 in 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.
To obtain the immobiliser code, see **Technical Note 5037A, Code delivery procedure**.

IMPORTANT
The programming key can only be used for a limited time, as shown 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.

SC017	PROGRAM INJECTION IMMOBILISER CODE

Equipment required
CLIP

If the injection computer is being replaced, this operation enables the injection computer to program the UCH immobiliser code.
After an injection computer has been replaced, there are no operations to be performed on the UCH. It retains the same immobiliser code.

There are two programming methods: "Not connected" to the code server mode and "connected" to the code server mode.
- In "not connected" mode, the CLIP diagnostic tool supplies a programming key and the user enters the immobiliser code.
- In "connected" mode, the CLIP diagnostic tool automatically exchanges the programming key and the immobiliser code.

Only a **programmed** UCH can program the injection computer with the immobiliser code.

IMPORTANT
Do not interrupt the procedure when it is in progress.
If it is interrupted, restart the procedure; a new programming key will be displayed.

SC017 **CONTINUED**	

Injection immobiliser code programming procedure:

– Establish dialogue with the UCH
– Select the **Repair mode** menu
– Select the **Secure programming** menu
– Select line **SC017 Program injection immobiliser code**.

Follow the instructions on the **CLIP diagnostic tool**.
When the **CLIP diagnostic tool** displays the programming key, make a note of this key and the VIN code.
To obtain the immobiliser code, see **Technical Note 5037A, Code delivery procedure**.

IMPORTANT
The programming key can only be used for a limited time, as shown 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.

IMPORTANT
In "not connected" mode, once the tool has issued the programming key, the user has a limited amount of time in which to enter the immobiliser code.
If this time expires, the CLIP diagnostic tool displays the message "Time expired. Restart the procedure".

IMPORTANT
In "connected" mode, the exchange of the programming key and the entry of the immobiliser code is done automatically.
If the connection parameters are not met, "connected" mode switches automatically to "not connected" mode.

SC018	CHECKING A KEY

Equipment required
CLIP

This scenario is used to check the status of the key in the event of a blank or not blank UCH.

It tells you:
– if the key is blank (**ET182 BLANK KEY**),
– if the key is allocated to **this** vehicle or not (**ET181 KEY ALLOCATED TO THE VEHICLE**),
– If the key is a memory type (**ET407 MEMORY KEY**).

1st solution:

Blank key	**NO**	This key is not blank but is allocated to the vehicle, therefore the key is operational. Check with the key statuses in the protection sub-function **(see conformity check in the event of a fault)**.
Key allocated to the vehicle	**YES**	
Memory key	**YES/NO**	

2nd solution:

Blank key	**YES**	This key is blank, allocate the key using command **SC015 KEY ALLOCATION** to allow it to be used on the vehicle.
Key allocated to the vehicle	**NO**	
Memory key	**YES/NO**	

3rd solution:

Blank key	**NO**	This key is not blank, and it does not belong to this vehicle. It is impossible to allocate this key to the vehicle. Or: If the UCH is being replaced, this key belongs to the vehicle but is no longer allocated, so run command **SC015 KEY ALLOCATION**.
Key allocated to the vehicle	**NO**	
Memory key	**YES/NO**	

Functions available and operating mode

– Deadlocking (CF009)
This function enables you to disable the interior door opening control. This function is activated by a second locking request from the key or the electric central locking switch.
This function is only available on vehicles fitted with a top of the range UCH.

– Hazard warning lights activated by ABS (CF024)
This function is available for all countries except Brazil, Finland, Great Britain, Japan and Sweden.
For Brazil, Great Britain, Japan, Sweden and Finland configure **NONE**.
For other countries, configure **WITH**.
In the event of braking causing rapid deceleration, the ABS computer transmits an activate hazard warning lights request via the multiplex network to the UCH.

– New vehicle storage mode (LC041 New vehicle storage mode)
If this mode is activated, consult the command, **see LC041 "New vehicle storage mode" and** contact the Techline.

– Daytime running lights
This configuration automatically activates the side lights and dipped beam headlights when the engine is running, without the driver using the lighting controls.
To be used in accordance with legislative requirements.

CF031 Calibration:
When replacing the UCH computer, perform this configuration.
This command lasts approximately **30 seconds**.

UCH CONFIGURATIONS

List of individual configurations available on the diagnostic tool with the associated configuration reading.

Configuration	Configuration reading	Name of configuration	Choice of configuration
CF031		**"Calibration",**	To be performed if replacing the UCH.
CF019	**LC013**	**"Type of heating and air conditioning system",**	HEATING/MANUAL/ AUTOMATIC
CF028	**LC023**	**"Engine type",**	Configuration. 1 (K9K) Configuration. 2 (D7F/D4F without air conditioning) Configuration. 3 (other engine)
CF171	**LC067**	**"Temperature display"**	WITH/WITHOUT
CF029	**LC002**	**"Exterior temperature sensor",**	WITH/WITHOUT
CF173	**LC070**	**"One-touch windows/SR*",**	WITH/WITHOUT
CF032	**LC025**	**"See-me-home lighting",**	WITH/WITHOUT
CF021	**LC015**	**"Front fog lights"**	WITH/WITHOUT
CF014	**LC008**	**"Daytime running lights",**	WITH/WITHOUT
CF193	**LC095**	**"Automatic headlighting function",**	WITH/WITHOUT
CF194	**LC096**	**"Automatic wiping function",**	WITH/WITHOUT
CF035	**LC044**	**"Rain/light sensor",**	**PRESENT/ABSENT**
CF191	**LC094**	**"Wiper intermittent speed ring",**	WITH/WITHOUT
CF024	**LC018**	**"Hazard warning lights switched on by ABS",**	WITH/WITHOUT
CF108	**LC040**	**"Automatic locking when driving",**	WITH/WITHOUT
CF009	**LC003**	**"Deadlocking",**	WITH/WITHOUT
CF192	**LC093**	**"Central door locking",**	WITH/WITHOUT
CF195	**LC097**	**"Type of key".**	**STANDARD/RF***
CF229	**LC126**	**"Alarm".**	WITH/WITHOUT

*** SR: Sunroof.**
***RF: radio frequency**

Procedure to follow for modifying these configurations

– Establish dialogue with the UCH.
– Select the **Repair mode** menu.
– Select the **Enter configuration** menu.
– Select the line corresponding to the configuration to be modified.
– In the drop-down menu, select the line corresponding to the vehicle's equipment or the customer's selection.
– Click on **Confirm**.

In the **Read configuration** menu, check that the configuration has been completed.

Note:
If the configuration **LC089 Memory key function** is **WITH** and if status **ET407 Memory key** (displayed using command **SC018 Key check**) is **YES,** then the UCH computer can be used to handle information about the vehicle contained in the key.

Summary of sensors and actuators on which the UCH can carry out fault finding (with the corresponding engineering office codes).

Tool fault	Associated DTC	Diagnostic tool title
DF001	9510	UCH
DF011	9522	Rain/light sensor circuit
DF012	95D1	Right-hand direction indicator circuit
DF013	95D0	Left-hand direction indicator circuit
DF027	9550	External temperature sensor circuit
DF040	95A0	Rear screen wiper park position
DF041	9560	Heated rear screen warning light circuit
DF042	9558	Air conditioning warning light circuit
DF054	9501	Computer
DF062	9580	Starter relay control circuit
DF065	95F0	Electric window authorisation connection
DF082	9570	Door locking button indicator light circuit
DF087	95C2	Side lights relay control circuit
DF088	95C3	Dipped beam headlights relay control circuit
DF097	95 A1	Windscreen wiper park position control
DF098	95C4	Main beam headlight relay control circuit
DF108	95C5	Front fog lights control circuit
DF109	95C6	Rear fog lights control circuit
DF133	9574	Deadlocking motor(s) circuit
DF134	95D2	Hazard warning lights indicator light circuit
DF135	9520	Rain detector
DF136	9521	Light sensor
DF137	96B1	UCH - Alternator connection
DF138	96B2	Alternator
DF139	9660	Interior lights
DF140	96B3	Voltage regulator
DF212	95B0	Alarm circuit

DF001 PRESENT OR STORED	UCH 1.DEF : Internal electronic fault

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present after the ignition is switched off and back on.

If the fault is stored, clear the fault, switch off the ignition and disconnect the **F8 (15A)** fuse of the UCH supply **(component code 645)** on the passenger compartment fuse and relay box **(component code 1016)**.
– Refit the fuse and switch the ignition back on.
– Request locking and then unlocking, then start the engine.

Check the condition and connection of the **PE1, PE2 and PE3** connectors of the UCH **(component code 645)** (tabs pushed back, oxidised, broken).
If the connector(s) are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.

Check for **+ after ignition feed** on connection **AP43** of component **645**.
Check for **+ accessories feed** on connection **SP2** (for vehicles fitted with a manual gearbox) or **SP15** (for vehicles fitted with a sequential gearbox) of component **645**.
Check for **earth** on connection **NAM** of component **645**. Check the **earth** on connection **MAM** of component **645**.
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 reappears as stored, contact Techline.
If the fault does not reappear, switch the lighting, wipers, vehicle locking and climate control request controls on and off several times, then read the faults again.

If the fault is still present. Do not operate on the computer, contact Techline.

AFTER REPAIR	If the computer has been replaced (at the request of the Techline): reconfigure the new UCH (see **Configurations and programming**). Deal with any other faults.

DF011 PRESENT OR STORED	RAIN/LIGHT SENSOR CIRCUIT 1.DEF : Open circuit or short circuit

NOTES	**Conditions for applying the fault finding procedure to stored faults:** Switch on the ignition, activate automatic headlighting by quickly performing the following manipulation twice: control stalk **(component code 209)** on zero position → control stalk **(component code 209)** in Side light position. **Status ET114 "Wiper request by rain sensor" should be "Low speed" or "High speed" when the water runs over the rain/light sensor on the windscreen** or **status ET115 "Request for lights to be switched on by light sensor" should** be **"Present" by placing an opaque cover over the rain/light sensor**. Note: **If there is an open circuit on connection BPT, there is a malfunction on the electric windows, rain/light sensor, interior light(s) and luggage compartment light.**

Check that the vehicle has a rain/light sensor **(component code 1415)**.
Check that the function is not deactivated, quickly perform the following cycle **twice** to activate the automatic headlighting function: Monolever **(component code 209)** OFF → Monolever **(component code 209)** in Side light ON position.
Check that the vehicle has a rain/light sensor **(component code 1415)**. Check that **LC044 "Rain/light sensor"** displays **"Present"**. **If not, carry out CF035 "Rain/light sensor".** Check that **LC096 "Automatic wiper function"** displays **"With"**. **If not, carry out CF194 "Automatic wiper function".** Check that **LC095 "Automatic headlight function",** displays **"With"**. **If not, carry out CF193 "Automatic headlight function".**
Check the condition and the positioning of fuses **F2 (15A), F8 (15A), F19 (5A), F27 (5 A)** depending on the equipment and **F29 (15A)** on the passenger compartment fuse and relay box **(component code 1016)**. Replace the fuse(s) or repair if necessary.
Check the condition and connection of the **PE1, PE2 and PE3** connectors of the UCH **(component code 645)** (tabs pushed back, oxidised, broken).
Check for **+ after ignition feed** on connection **AP43** of component **645**. Check for **+ accessories feed** on connection **SP2** (for vehicles fitted with a manual gearbox) or **SP15** (for vehicles fitted with a sequential gearbox) of component **645**. Check for **earth** on connection **NAM** of component **645**. Check the **earth** on connection **MAM** of component **645**. 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.

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

DF011 CONTINUED	

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

- Connection code **AP43**,
- Connection code **SP2**,
- Connection code **SP15**.

Between components **645** and **1016**.

- Connection code **MAN** or **MAM** between component **645** and **earth MAN** or **MAM** (depending on the driving layout, right- or left-hand drive).

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 connections are correct, check the rain/light sensor **(component code 1415)**.

Rain/light sensor check:

Check the condition and connection of the 3-track rain/light sensor connector **(component code 1415)** (tabs bent, broken or oxidised).

Check for **+ 12 V** on **connection BPT** of component **1415**.
Check for **earth** on **connection MAM** of component **1415**.

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

- Connection code **BPT** between components **645 and 1415**.
- Connection code **14S** between components **645 and 1415**.
- Connection code **MAM** between components **1415 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.

Check that the sensor is not dirty.
Check that the sensor is correctly bonded to the windscreen. (see **MR 411 85A, Wipers - Washers, Rain and light detector: Removal - Refitting**)

If the fault is still present, replace the rain/light sensor **(component code 1415)**.

If the fault is still present, contact the Techline.

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

DF012 PRESENT	RIGHT-HAND DIRECTION INDICATOR CIRCUIT CC.0 : Short circuit to earth C0.1 : Open circuit or short circuit to + 12 V 1.DEF : Bulb(s) not working or short circuit to + 12 V

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault appears after: The right-hand indicator stalk is activated. OR Activation of **AC023 Right-hand indicator**.

Check that fuses **F13 (30A) and F15 (5 A)** are sound and correctly fitted in the passenger compartment fuse and relay box **(component code 1016)**.

Check the bulbs and condition of the bulb supports.
Replace the bulbs if necessary.

With command **AC023 Right-hand indicator** running, check for **+ 12 V** on the following connection:

- Connection code **64D**.

Between components **256 and 645**.
Between components **268 and 645**.
Between components **173 and 645**.

Check the **continuity** on the following connection:

- Connection code **64D**.

Between components **256 and 645**.
Between components **268 and 645**.
Between components **173 and 645**.

Check for **earth** on the following connections:

- Connection code **MAS** between component **256 and earth MAS**.
- Connection code **MAS** between component **268 and earth MAS**.
- Connection code **MF** between component **173 and earth MF**.

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 **feeds** and **earths** are correct, check the monolever **(component code 209)**.

If the **feeds** and **earths** are not correct, check the condition and connection of the horn and lights switch connector **(component code 209)** and the UCH 40-track connector **PE2 (component code 645)** (tabs bent, broken or oxidised).
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.

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

DF012 CONTINUED	

Checking the monolever (component code 209):
With command **AC023 Right-hand indicator** running, check for **+ 12 V** on the following connection:

- Connection code **64S** between components **209** and **645**.

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.

If there is no **+ 12 V**, check the **insulation, continuity and the absence of interference resistance** on the following connections:

- Connection code **64S** between components **209** and **645**.
- Connection code **BPA2** between components **1016** and **209**.
- Connection code **BPA3** between components **1016** and **209**.
- Connection code **MAN** or **MAM** between component **209** and **earth MAN** or MAM (depending on the driving layout, right- or left-hand drive).

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 **feeds, earths** and connections of the monolever **(component code 209)** are correct, replace the monolever **(component code 209)**. (see **MR 411 Mechanical systems 84A, Controls - Signals, Lighting and signals switch: Removal - Refitting**)

If the fault is still present, contact the Techline.

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

DF013 PRESENT	LEFT-HAND DIRECTION INDICATOR CIRCUIT CC.0 : Short circuit to earth C0.1 : Open circuit or short circuit to + 12 V 1.DEF : Bulb(s) not working or short circuit to + 12 V

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault appears after: The left-hand indicator stalk is activated. OR Running **AC022 Left-hand indicator**.

Check that fuses **F13 (30A) et F15 (5 A)** are sound and correctly fitted in the passenger compartment fuse and relay box **(component code 1016)**.

Check the bulbs and condition of the bulb supports.
Replace the bulbs if necessary.

With command **AC022 Left-hand indicator** running, check for **+ 12 V** on the following connection:

- Connection code **64C**.

Between components **256 and 645**.
Between components **268 and 645**.
Between components **173 and 645**.

Check the **continuity** on the following connection:

- Connection code **64C**.

Between components **256 and 645**.
Between components **268 and 645**.
Between components **173 and 645**.

Check for **earth** on the following connections:

- Connection code **MAS** between component **256 and earth MAS**.
- Connection code **MAS** between component **268 and earth MAS**.
- Connection code **MF** between component **173 and earth MF**.

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 **feeds** and **earths** are correct, check the monolever **(component code 209)**.

If the **feeds** and **earths** are not correct, check the condition and connection of the horn and lights switch connector **(component code 209)** and the UCH 40-track connector **PE2 (component code 645)** (tabs bent, broken or oxidised).

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

DF013 CONTINUED	

Checking the monolever (component code 209):
With command **AC022 Left-hand indicator** running, check for **+ 12 V** on the following connection:

- Connection code **64T** between components **209** and **645**.

If the connection is defective and there is a repair procedure (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If there is no **+ 12 V**, check the **insulation, continuity and the absence of interference resistance** on the following connections:

- Connection code **64T** between components **209** and **645**.
- Connection code **BPA2** between components **1016** and **209**.
- Connection code **BPA3** between components **1016** and **209**.
- Connection code **MAN** or **MAM** between component **209** and **earth MAN** or MAM (depending on the driving layout, right- or left-hand drive).

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 **feeds, earths** and connections of the monolever **(component code 209)** are correct, replace the monolever **(component code 209)**. (See **MR 411 Mechanical systems 84A, Controls - Signals, Lighting and signals switch: Removal - Refitting**)

If the fault is still present, contact the Techline.

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

DF027 PRESENT OR STORED	EXTERNAL TEMPERATURE SENSOR CIRCUIT 1. DEF : Abnormal voltage CC.0 : Short circuit to earth C0.1 : Open circuit or short circuit to + 12 V

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present after the ignition is switched off and back on. Note: If the exterior temperature sensor is disconnected or the vehicle is not equipped with an exterior temperature sensor, the temperature displayed is the default temperature of **215 ˚C**.

Check whether the right-hand door mirror is fitted with an exterior temperature sensor. (See **MR 411 mechanical systems 62A, Air conditioning, Air conditioning: List and location of components**).
If the vehicle is fitted with an exterior temperature sensor, deal with the following fault finding procedure.
If **NO**, the vehicle is not fitted with this:
Check that the vehicle is configured without external temperature sensor (**component code 240** for left-hand drive vehicles) or (**component code 239** for right-hand drive vehicles):
Check that **LC002 "External temperature sensor"** is **"WITHOUT"**. **Otherwise perform CF029 "External temperature sensor"**.

Check the temperature sensor 2-track connector (bent, oxidised, broken tabs).

Check the **PE2** 40-track connector of the UCH, **component code 645** (tabs bent, oxidised, broken).
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.

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

- Connection code **47D** between components **240** (for left-hand drive vehicles) or **239** (for right-hand drive vehicles) **and 645**.
- Connection code **47C** between components **240** (for left-hand drive vehicles) or **239** (for right-hand drive vehicles) **and 645**.

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.
Measure the resistance of the sensor (connector disconnected) on connections **47C and 47D**.

Temperature (˚**C**)	Sensor resistance (Ω) ± **50** Ω
0	5980
5	5020
10	4280
15	3530
20	2900
25	2300
30	2010
35	1620

Replace the sensor if not correct (see **MR 411 Mechanical systems 62A, Air conditioning, Exterior air temperature sensor: Removal - Refitting**).

If there is a fault, contact Techline.

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

DF040 PRESENT OR STORED	REAR SCREEN WIPER PARK POSITION 1.DEF : Open circuit or short circuit to earth

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault appears after: The ignition is switched off and back on again and the rear wipers are operated using the wiping stalk. OR Activating **AC007 Rear screen wipers**.

This fault may appear if the rear screen wiper motor **(component code 211)** is forced (e.g.: used on a dry screen, snow on the screen, etc.).
Check that fuse **F36 (15 A)** is sound and correctly fitted to the passenger compartment fuse and relay box **(component code 1016)**. Replace the fuse if necessary.
Check the condition and connection of the 3-track rear screen wiper motor connector **(component code 211)** (broken, bent, oxidised tabs).
Activate the rear screen wiper, check for **+ 12 V** on connection **36A** of the rear screen wiper motor connector **(component code 211)**.
Check that the **earth** on connection **MYH** of the rear screen wiper motor connector **(component code 211)** is in perfect condition.
Check the condition and connection of the UCH 40-track **PE1** connector **(component code 645)** (tabs broken, bent or oxidised) and the 3-track rear screen wiper motor connector **(component code 211)**. If the connector(s) are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.

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

DF040 CONTINUED	

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

Combined wiper-washer check:
- Connection code **AP71** between components **1016** and **145**.
- Connection code **36E (rear screen wiper timed control)** between components **645 and 145**.
- Connection code **MAN or MAM** between component **145 and the earth MAN (left-hand drive) or MAM (right-hand drive)**.

Rear screen wiper motor check:
- Connection code **36C** between components **211 and 645**.
- Connection code **36A** between components **211 and 1016**.
- Connection code **MYH** between component **211 and earth MYH**.

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 the fitting and activate the supply to the rear screen wiper motor **(component code 211)**.
Repair if necessary or replace the motor if it is faulty. (see **MR 411, Mechanical systems, 85A, Washing - wiping, Rear screen wiper motor: Removal - Refitting**)

If the fault is still present, contact the Techline.

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

DF041 PRESENT OR STORED	HEATED REAR SCREEN INDICATOR LIGHT CIRCUIT CC.1 : Short circuit to + 12 volts

NOTES	Apply this fault only to versions **without heating** or with **manual climate control**. **Conditions for applying the fault finding procedure to stored faults:** The fault appears after: The ignition is switched off and back on again and the rear screen de-icer is requested. OR Running command **AC019 Heated rear screen indicator light**.

Check that fuses **F29 (15 A)** and **F42 (10 A)** are sound and correctly fitted in the passenger compartment fuse and relay box **(component code 1016)** and/or heating. Replace the fuse(s) if necessary.
Check the **air conditioning control panel black 9-track connector, (component code 319)** (bent, oxidised or broken tabs).
Check that the **earth** on **connection NAM** of the manual air conditioning control panel black 9-track connector is in perfect condition.
Check for **+ 12 V** on connection **LPD** (by running command **AC019 Heated rear screen indicator light**) of the manual air conditioning control panel black 9-track connector. Check for **+ 12 V** accessories feed on **connection SP2** of the manual air conditioning control panel black 9-track connector. Check that the rear screen de-icing indicator comes on when activating command **AC019 Heated rear screen indicator**.
Check the **PE1** 40-track connector of the UCH, **component code 645** (tabs bent, oxidised, broken).

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

DF041 CONTINUED	

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

- Connection code **38ES** between components **319 and 645**.
- Connection code **38LP** between components **319 and 645**.
- Connection code **38LQ** between components **319 and 645**.
- Connection code **15A** between components **319 and 645**.
- Connection code **15M** between components **319 and 645**.
- Connection code **LPD and SP2** between components **319 and 1016**.

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

DF042 PRESENT OR STORED	AIR CONDITIONING WARNING LIGHT CIRCUIT CC.1 : Short circuit to + 12 V

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present after the ignition is switched on and following an air conditioning activation request with all the lights switched off.

Check that the type of air conditioning of the vehicle (equipment level) corresponds with the UCH configuration: Check that **LC013 Air conditioning type** corresponds with the vehicle equipment level. **Otherwise carry out CF019 Air conditioning type.**
Check that fuses **F29 (15A) and F42 (10 A)** are sound and correctly fitted in the passenger compartment fuse and relay box **(component code 1016)**. Replace the fuse(s) if necessary.
Check the **air conditioning control panel black 9-track connector, (component code 319)** (bent, oxidised or broken tabs).
Check that the **earth** on **connection NAM** of the manual air conditioning control panel black 9-track connector is in perfect condition.
Check for **+ 12 V** accessories feed on connections **LPD** and **SP2** of the manual air conditioning control panel black 9-track connector.
Check the **PE1** and **PE2** 40-track connectors of the UCH, **(component code 645)** (tabs bent, oxidised, broken).
Check the **insulation, continuity and absence of interference resistance** of the following connections: ● Connection code **15A** between components **319 and 645**. ● Connection code **38ES** between components **319 and 645**. ● Connection code **38LP** between components **319 and 645**. ● Connection codes **LPD and SP2** between components **319 and 1016**. 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, replace the air conditioning control panel **(component code 319)** (see **MR 411 Mechanical systems 62B, Climate control, Control panel: Removal - Refitting**).
If the fault is still present, contact the Techline.

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

DF054 PRESENT OR STORED	COMPUTER The radiofrequency receiver inside the UCH computer does not work 1.DEF : Internal electronic fault

NOTES	**Conditions for applying the fault finding procedure to stored faults:** – The fault is declared present after the ignition has been switched on.

If the fault is stored, switch off the ignition and check the **F8 (15A)** fuse of the UCH supply **(component code 645)** on the passenger compartment fuse and relay box **(component code 1016)**. – Replace the fuse if necessary, clear the fault and switch on the ignition again. – Request locking and then unlocking, then start the engine.
Check for **+ after ignition feed** on connections **AP43, BP15, APT, BP6, BP13, BP19, SP2, SP15** of component **645**. Check for **+ 12 V** accessories feed on connections **SP2 and SP15** of component **645**. Check for **earth** on connections **MAN and NAM** of component **645**. 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 status **ET045 "RF* signal received"** is **"Yes"** by pressing the locking button on the key, if when pressing the status is **"No"** check the battery and the conformity of the key.
If the fault does not reappear, switch the lighting, wipers, vehicle locking and climate control request controls on and off several times, then read the faults again.
If the fault is still present. Do not operate on the computer, contact Techline.

*RF: radio frequency

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

DF062 PRESENT OR STORED	STARTER RELAY CONTROL CIRCUIT CC.1 : Short circuit to + 12 volts

NOTES	**Conditions for applying the fault finding procedure to stored faults:** **The fault is declared present after the starter is activated.** **WARNING** **When activating the starter, none of the gears must be engaged (and the parking brake must be applied).**

Check that fuse **F9 (15 A)** is sound and correctly fitted in the passenger compartment fuse and relay box **(component code 1016)** and relay **A (20 A)** in the engine fuse and relay box **(component code 597)**. Replace the fuse if necessary.

Check the condition and connection of the UCH 24-track connector **PE1 (component code 645)** (tabs bent, oxidised or broken).

Check the condition and connection of the starter relay 4-track black connector (tabs bent, oxidised or broken).

With the starter activated, check for **+ 12 V** on connection **1B** of component **645**.
With the starter activated, check for **+ 12 V** on connection **AP29** of component **232**.

Check the **insulation, continuity and absence of interference resistance** of the following connections:
Starter relay check:

- Connection code **1B** between components **232 and 645**.
- Connection code **1A** between components **232 and 163**.
- Connection code **D** between components **232 and 104**.
- Connection code **AP23** between components **232 and 1016**.

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 connections are correct, replace the starter relay (**component code 232**). (See **MR 411 Mechanical systems 16A, Starting - Charging, Starting system: Identification**).

If the connections and the relay are correct, check the starter (**component code 163**). (See **MR 411 Mechanical systems 16A, Starting - Charging, Starting system: Identification**).

If the fault is still present, contact the Techline.

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

DF065 PRESENT OR STORED	ELECTRIC WINDOWS AUTHORISATION CONNECTION CC.1 : Short circuit to + 12 volts

NOTES	**Conditions for applying fault finding procedures to stored faults:** **The fault is declared present after:** The ignition is switched off and back on again after pressing the driver's one-touch electric window switch or sunroof switch if the vehicle is fitted with a sunroof.

For vehicles fitted with sunroof (**component code 1578**):
Check that the vehicle is configured with **One-touch window(s) S.R*. :**
Check that **LC070 One-touch window(s) S.R.** is **With**. **Otherwise use CF173 One-touch window(s) S.R.**

Check the condition and connection of the UCH 24-track connector **PE2** (**component code 645**) (tabs bent, oxidised or broken).

Check the condition and connection of the driver's electric window motor 6-track connector (bent, oxidised, broken tabs).

If there is an electric sunroof, check that fuse **F26 (20 A)** is sound and correctly fitted in the passenger compartment fuse and relay box **(component 1016)**.
Replace the fuse if necessary.

If there is an electric sunroof, check the condition and connection of the A-pillar 4-track connector **339** and of sunroof computer connector **AA** (tabs bent, oxidised, broken).

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

- Connection code **21K** between components **203 and 645**.
- Connection code **MAM** between component **203 and earth MAM**.

For vehicles fitted with a sunroof:

- Connection code **21K** between components **1579 and 645**.
- Connection code **MAM** between component **1579 and earth MAM**.

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, switch on the ignition and check for **0 V** on connection **21K** if no **(see 87D electric windows - Sunroof)**.

* SR: **Sunroof**

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

DF082 PRESENT OR STORED	DOOR LOCKING BUTTON CIRCUIT CC.0 : Short circuit to earth

NOTES	**Conditions for applying fault finding procedures to stored faults:** The fault appears after: Pressing the central door locking button. OR Running **AC020 CPE* button indicator light**.

Check that the vehicle is correctly configured**:** Check that **LC003 Deadlocking** is **With**. **Otherwise carry out CF009 Deadlocking.** Check that **LC040 Automatic locking when driving** is **With**. **Otherwise carry out CF108 Automatic locking when driving.** Check that **LC093 Central door locking** is **With**. **Otherwise perform CF192 Central door locking.**
Check that the door locking button indicator light comes on when running command **AC020 CPE button indicator light**.
Check that fuses **F42 (10 A) and F46 (15 A) on component 1016** are sound and correctly fitted.
Check the condition and connection of the door lock switch/hazard warning lights switch connector (**component code 1391**) (bent, oxidised, broken tabs).
Check the condition and connection of the UCH 40-track connector **PE2** (**component code 645**) (tabs bent, oxidised or broken).
Check for **+ 12 V** on the following connections: ● Connection code **20M** between components **1391 and 645**. ● Connection code **20AW** between components **1391 and 645**. 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 the **insulation, continuity and the absence of interference resistance** on the connections between: ● Connection code **20M** between components **1391 and 645**. ● Connection code **20AW** between components **1391 and 645**. 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, replace the central door locking/hazard warning lights switch (**component code 1391**). (See **MR 411 Mechanical systems 84A, Controls - Signals, Hazard warning lights and central door locking: Removal - Refitting**).
If the fault is still present, contact the Techline.

*CPE: Electric central door locking.

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

DF087 PRESENT OR STORED	SIDE LIGHTS RELAY CONTROL CIRCUIT CC.1 : Short circuit to + 12 volts CC.0 : Open circuit or short circuit to earth

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault reappears after: The ignition is switched on and the side lights are activated. OR Running **AC055 Side lights** Note: This fault only appears on vehicles fitted with automatic headlighting. Check for the rain/light sensor **(component code 1415)** then use the **diagnostic tool** to check: – Check that **LC044 "Rain/light sensor"** displays **"Present"**. **If not, carry out CF035 "Rain/light sensor".** – Check that **LC095 "Automatic headlight function",** displays **"With"**. **If not, carry out CF193 "Automatic headlight function".** – Check that **LC096 "Automatic wiper function"** displays **"With"**. **If not, carry out CF194 "Automatic headlight function".**

With automatic headlighting:

Check that fuses **F14 (20 A), F15 (5 A), F25 (5 A), F39 (10 A), F40 (5 A), F42 (10 A)** and **F43 (10 A)** are sound and correctly fitted in the passenger compartment fuse and relay box **(component code 1016)**. Replace the fuse(s) if necessary.
Check the presence and condition of the **side light relays (component code 289) (20A)** and **1034 (20A)**. Replace the **side light relay (component code 289)** if necessary.
Check the condition and connection of the light concerned (bent, oxidised, broken tabs).
Check the condition and connection of the 40-track connectors **PE1** and **PE2** of the UCH (**component code 645**) (tabs broken, bent or oxidised).
Check the condition and connection of the horn and lights switch connector **(component code 209)** (tabs bent, oxidised, broken).
Check for the **+ 12 V** (when requesting the side lights) on connection **LPD** of component **184** and on connection **LPG** of component **185**. Check for the **earth** on connection **MAR** of component **184** and on connection **MAS** of component **185**. 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.

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

DF087 CONTINUED 1	

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

Right-hand front side light:
- Connection code **LPD** between components **184 and 1016**.
- Connection code **MAR** between component **184 and earth MAR**.

Left-hand front side light:
- Connection code **LPG** between components **185 and 1016**.
- Connection code **MAS** between component **185 and earth MAS**.

Rear right side light:
- Connection code **LPD** between components **172 and 1016**.
- Connection code **MF** between component **172 and earth MF**.

Rear left side light:
- Connection code **LPG** between components **173 and 1016**.

Connection code **MG** between component **173 and earth MG**.

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 for **+ 12 V** (when side lights are requested) on connection **L** of component **289**.
Check for **+ 12 V** (when side lights are requested) on connection **78P** of components **289**.
Check for **+ 12 V** on connection **BP11** of component **289**.

Side light relay check:
Check **the insulation, continuity and the absence of interference resistance** on the following connections:

- Connection code **L** between components **1016** and **289**.
- Connection code **BP11** between components **289** and **1016 and 597**.
- Connection code **78H** between components **645** and **1034**.
- Connection code **78P** between components **289** and **645**.

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.

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

DF087 CONTINUED 2	

Checking the monolever (component code 209):
Check **the insulation, continuity and the absence of interference resistance** on the following connections:

Check between the monolever (component code 209) and the UCH:

- Connection code **78B** between components **645** and **209**.

Check between the monolever (component code 209) and the passenger compartment fuse and relay box (component code 1016):

- Connection code **BPA2** between components **1016** and **209**.
- Connection code **BPA3** between components **1016** and **209**.
- Connection code **BPA4** between components **1016** and **209**.
- Connection code **MAN** or **MAM** between component **209** and **earth MAN** or **MAM** (depending on the driving layout, right- or left-hand drive).

Check for **+ 12 V** on connections **BPA2** and **BPA3** of component **209**. Check for **earth** on connection **MAM** (for right-hand drive vehicles) or **MAN** (for left-hand drive vehicles) of component **209**.
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 **feeds, earth** and connections are correct, replace the monolever **(component code 209)**. (See **MR 411 Mechanical systems 84A, Controls - Signals, Lighting and signals switch: Removal - Refitting**)

If the fault is still present, contact the Techline.

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

DF088 PRESENT OR STORED	DIPPED BEAM HEADLIGHTS RELAY CONTROL CIRCUIT CC.1 : Short circuit to + 12 volts CC.0 : Open circuit or short circuit to earth

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault reappears after: The ignition is switched on and the side lights are activated. OR Running **AC054 Dipped headlights** Note: This fault only appears on vehicles fitted with automatic headlighting. Check for the rain/light sensor **(component code 1415)** then: – Check that the vehicle has a rain/light sensor **(component code 1415)**. – Check that **LC044 "Rain/light sensor"** displays **"Present"**. **If not, carry out CF035 "Rain/light sensor".** – Check that **LC096 "Automatic wiper function"** displays **"With"**. **If not, carry out CF194 "Automatic wiper function".** – Check that **LC095 "Automatic headlight function",** displays **"With"**. **If not, carry out CF193 "Automatic headlight function".**

With automatic headlighting:

Check that fuses **F13 (30A), F15 (5A), F25 (5 A), F34 (15 A)** and **F35 (15 A)** are sound and correctly fitted in the passenger compartment fuse and relay box **(component code 1016)**. Replace the fuse if necessary.
Check the presence and condition of the **dipped headlights relay (component code 281) (20A)**. Replace the **dipped headlights relay (component code 281)** if necessary.
Check the correct positioning and condition of the bulb concerned. Replace the light if necessary.
Check the condition and connection of the light concerned (bent, oxidised, broken tabs).
Check the condition and connection of the UCH 40-track connector **PE2 (component code 645)** (tabs bent, oxidised or broken).
Check the condition and connection of the horn and lights switch connector **(component code 209)** (tabs bent, oxidised, broken). If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.

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

DF088 CONTINUED 1	

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

Front right-hand dipped beam headlight:
- Connection code **CPD** between components **226 and 1016**.
- Connection code **MAR** between component **226 and earth MAR**.

Front left-hand dipped beam headlight:
- Connection code **CPG** between components **227 and 1016**.
- Connection code **MAS** between component **227 and earth MAS**.

Check for **+ 12 V** (when there is a dipped headlights request) on connection **CPD** of component **226** and connection **CPG** of component **227**.
Check for the **earth** on connection **MAR** of component **226** and on connection **MAS** of component **227**.

Check for **+ 12 V** (when dipped headlights are requested) on connection **CSO** of component **281**.
Check for **+ 12 V** (when dipped headlights are requested) on connection **78M** of component **281**.
Check for **+ 12 V** on connection **BP59** of component **281**.

Dipped headlights relay check:
Check **the insulation, continuity and the absence of interference resistance** on the following connections:

- Connection code **CSO** between components **281** and **1016**.
- Connection code **78M** between components **281** and **645**.
- Connection code **BP59** between components **281** and **1016**.

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.

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

DF088 CONTINUED 2	

Checking the monolever (component code 209):
Check **the insulation, continuity and the absence of interference resistance** on the following connections:

Check between the monolever **(component code 209)** and the UCH:

- Connection code **78Q** between components **645** and **209**.

Check between the monolever **(component code 209)** and the **passenger compartment fuse and relay box (component code 1016)**:

- Connection code **BPA3** between components **1016** and **209**.
- Connection code **MAN** or **MAM** between component **209** and **earth MAN** or **earth MAM** (depending on the driving layout, right- or left-hand drive).

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 for **+ 12 V** on connections **BPA2** and **BPA3** of component **209**.
Check for **earth** on connection **MAM** (for right-hand drive vehicles) or **MAN** (for left-hand drive vehicles) of component **209**.
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 **feeds, earth** and connections are correct, replace the monolever **(component code 209)**. (See **MR 411 Mechanical systems 84A, Controls - Signals, Lighting and signals switch: Removal - Refitting**)

If the fault is still present, contact the Techline.

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

DF097 PRESENT OR STORED	WINDSCREEN WIPER PARK POSITION CIRCUIT 1.DEF : Open circuit or short circuit to earth

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present after the ignition is switched off and back on and the front wipers are operated from the wiping stalk.

This fault may appear if the windscreen wiper motor is forced (e.g.: used on a dry screen, snow on the screen, etc.).

Check that fuse **F2 (15 A)** is sound and correctly fitted to the passenger compartment fuse and relay box **(component code 1016)**.
Replace the fuse if necessary.

Check the condition and connection of the 5-track **windscreen wiper motor connector (OR) (component code 212)** (broken, bent, oxidised tabs).

Check the condition and connection of the 40-track connectors **PE1, PE2 and PE3** of the UCH **(component code 645)** (tabs broken, bent or oxidised).

Check that the **earth** on connection **MAS** of the windscreen wiper motor connector **(component code 212)** is correct.
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.

Activate low speed, check for **+ 12 V** on connections **14B** of the **windscreen wiper motor connector (component code 212)**. Activate the high speed, check for **+ 12 V** on connection **14A** of the **windscreen wiper motor connector (component code 212)**.

If there is no **+ 12 V**, check the **insulation, continuity and the absence of interference resistance** on the following connections:

Check the combined wiper-washer:

- Connection code **AP71** between components **145 and 1016**.
- Connection code **14E (windscreen wiper timed control)** between components **645 and 145**.
- Connection code **14G (low speed windscreen wiper control)** between components **645 and 145**.
- Connection code **14H (high speed windscreen wiper control)** between components **645 and 145**.
- Connection code **MAN (left-hand drive or MAN (right-hand drive)** between component **145 and the earth MAN (left-hand drive) or MAM (right-hand drive)**.

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

DF097 CONTINUED	

Check the windscreen wiper motor:

- Connection code **14A** between components **212 and 645**.
- Connection code **14B** between components **212 and 645**.
- Connection code **14C** between components **212 and 645**.
- Connection code **MAS** between component **212 and earth MAS**.

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 the fitting of the windscreen wiper motor **(component code 212)**.
Repair if necessary or replace the motor if it is faulty. (see **MR 411, Mechanical systems, 85A, Washing - wiping, Windscreen wiper motor: Removal - Refitting**)

If the fault is still present, contact the Techline.

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

DF098 PRESENT OR STORED	MAIN BEAM HEADLIGHT RELAY CONTROL CIRCUIT CC.1 : Short circuit to + 12 volts CC.0 : Open circuit or short circuit to earth

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault reappears after: The ignition is switched on and the main beam headlights are activated. OR Running **AC062 Main beam headlights** Note: This fault only appears on vehicles fitted with automatic daytime running lights. Check for the rain/light sensor **(component code 1415)** then: – Check that the vehicle has a rain/light sensor **(component code 1415)**. – Check that **LC044 "Rain/light sensor"** displays **"Present"**. **If not, carry out - CF035 "Rain/light sensor".** – Check that **LC096 "Automatic wiper function"** displays **"With"**. **If not, carry out CF194 "Automatic wiper function".** – Check that **LC095 "Automatic headlight function",** displays **"With"**. **If not, carry out CF193 "Automatic headlight function".**

With automatic headlighting:

Check the presence and condition of fuses **F15 (5 A), F25 (15 A), F32 (10 A)** and **F33 (10 A)** on the passenger compartment fuse and relay box **(component code 1016)**. Replace the fuse if necessary.
Check the presence and condition of the **main beam headlights relay (component code 1574) (20A)**. Replace the main beam headlights relay **(component code 1574)** if necessary.
Check the correct positioning and condition of the bulb concerned. Replace the light if necessary.
Check the condition and connection of the light concerned (bent, oxidised, broken tabs).
Check the condition and connection of the UCH **PE2** connectors **(component code 645)** (tabs bent, oxidised or broken).
Check the condition and connection of the horn and lights switch connector **(component code 209)** (tabs bent, oxidised, broken).
Check for **+ 12 V** (when there is a main beam headlights request) on connection **RPD** of components **226** and **227**. Check for an **earth** on connection **MAR** of component **226** and connection **MAS** on component **227**. 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.

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

DF098 CONTINUED 1	

Main beam headlights check:
Check **the insulation, continuity and the absence of interference resistance** on the following connections:

Front right-hand main beam headlight:
- Connection code **RPD** between components **226 and 1016**.
- Connection code **MAR** between component **226 and earth MAR**.

Front left-hand main beam headlight:
- Connection code **RPG** between components **227 and 1016**.

Connection code **MAS** between component **227 and earth MAS**.

Check for **+ 12 V** (when main beam headlights are requested) on connection **R** of component **1574**.
Check for **+ 12 V** (when main beam headlights are requested) on connection **11A** of component **1574**. Check for **+ 12 V** on connection **BP11** of component **1574**.

Main beam headlights relay check:
Check **the insulation, continuity and the absence of interference resistance** on the following connections:

- Connection code **R** between components **1016** and **1574**.
- Connection code **11A** between components **1574** and **645**.
- Connection code **BP11** between components **1574** and **597**.

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.

Checking the monolever (component code 209):
Check **the insulation, continuity and the absence of interference resistance** on the following connections:
Check between the monolever (component code 209) and the UCH:
- Connection code **11Q** between components **645** and **209**.

Hazard lights:
- Connection code **11R** between components **209** and **654**.

Check between the monolever (component code 209) and the passenger compartment fuse and relay box (component code 1016):

- Connection code **BPA2** between components **209** and **1016**.
- Connection code **BPA3** between components **209** and **1016**.
- Connection code **MAN** (left-hand drive) or **MAM** (right-hand drive) between component **209** and the **earth MAN** (left-hand drive) or **MAM** (right-hand drive).

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.

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

DF098 CONTINUED 2	

Check for **+ 12 V** on connections **BPA2** and **BPA3** of component **209**. Check for **earth** on connection **MAM** (for right-hand drive vehicles) or **MAN** (for left-hand drive vehicles) of component **209**. 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 **feeds, earth** and connections are correct, replace the monolever **(component code 209)**.
If the fault is still present, contact the Techline.

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

DF108 PRESENT OR STORED	FRONT FOG LIGHTS CONTROL CIRCUIT CC.1 : Short circuit to + 12 volts CC.0 : Open circuit or short circuit to earth

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault reappears after: Switching on the ignition and the front fog lights. OR Running **AC008 Front fog lights** Note: This fault only appears on vehicles fitted with automatic daytime running lights. Check for the rain/light sensor **(component code 1415)** then: Check that the vehicle has a rain/light sensor **(component code 1415)**: – Check that **LC044 "Rain/light sensor"** displays **"Present"**. **If not, carry out - CF035 "Rain/light sensor".** – Check that **LC096 "Automatic wiper function"** displays **"With"**. **If not, carry out CF194 "Automatic wiper function".** – Check that **LC095 "Automatic headlight function",** displays **"With"**. **If not, carry out CF193 "Automatic headlight function".** – Check that **LC015 Front fog lights** is **With**. **Otherwise run CF021 Front fog lights.**

With automatic headlighting:

Check the presence and condition of fuses **F15 (5 A), F20 (15 A), F25 (5 A)** on the passenger compartment fuse and relay box **(component code 1016)**. Replace the fuse if necessary.
Check the presence and condition of the front foglights relay **(component code 231) (20A)**. Replace the front fog lights relay **(component code 231)** if necessary.
Check the correct positioning and condition of the bulb concerned. Replace the light if necessary.
Check the condition and connection of the light concerned (bent, oxidised, broken tabs). If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.
Check the condition and connection of the UCH **PE2** connector **(component code 645)** (tabs bent, oxidised or broken).
Check the condition and connection of the horn and lights switch connector **(component code 209)** (tabs bent, oxidised, broken).
Check for **+ 12 V** (when front fog lights are requested) on connection **8B** of components **176** and **177**. Check for **earth** on connection **MAR** of component **176** and connection **MAS** on component **177**.

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

DF108 CONTINUED	

Front fog lights check:
Check **the insulation, continuity and the absence of interference resistance** on the following connections:

Front right-hand fog light and fog lights relay:
- Connection code **8B** between components **176 and 231**.

Front left-hand fog light and fog lights relay:
- Connection code **8B** between components **177 and 231**.

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 for **+ 12 V** (when there is a front fog lights request) on connection **8M** of component **231**.
Check for **+ 12 V** on connection **BP16** of component **231**.

Front fog lights relay check:
Check **the insulation, continuity and the absence of interference resistance** on the following connections:
- Connection code **8M** between components **231** and **645**.
- Connection code **BP16** between components **231** and **1016**.

Checking the monolever (component code 209):
Check **the insulation, continuity and the absence of interference resistance** on the following connections:
Check between the monolever (component code 209) and the UCH:
- Connection code **8H** between components **645** and **209**.

Check between the monolever (component code 209) and the passenger compartment fuse and relay box (component code 1016):
- Connection code **BPA2** between components **209** and **1016**.
- Connection code **BPA3** between components **209** and **1016**.
- Connection code **MAN** (left-hand drive) or **MAM** (right-hand drive) between components **209** and the **earth MAN** (left-hand drive) or **MAM** (right-hand drive).

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 for **+ 12 V** on connections **BPA2** and **BPA3** of component **209**.
Check for **earth** on connection **MAM** (for right-hand drive vehicles) or **MAN** (for left-hand drive vehicles) of component **209**.
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 **feeds** and the connections of the monolever **(component code 209)** are correct, replace the monolever **(component code 209)**.

If the fault is still present, contact the Techline.

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

DF109 PRESENT OR STORED	REAR FOG LIGHTS CONTROL CIRCUIT CC.1: Short circuit to + 12 volts CC.0: Open circuit or short circuit to earth

NOTES	**Conditions for applying the fault finding procedure to stored faults:** If the fault reappears as present after: The ignition is switched on and the rear fog lights are activated. OR Running **AC009 Rear fog lights**. Note: This fault only appears on vehicles fitted with automatic daytime running lights. Check the presence of the rain/light sensor (**component code 1415**), then: Check that the vehicle is configured with a rain/light sensor **(component code 1415)**: – Check that **LC044 Rain/light sensor** displays **Present**. **If not, perform CF035 Rain/light sensor**. – Check that **LC096 Automatic wiper function** displays **With**. **If not, carry out CF194 "Automatic wiper function".** – Check that **LC095 Automatic headlight function** displays **With**. **If not, carry out CF193 "Automatic headlight function".**

With automatic headlighting:

Check the presence and condition of fuses **F15 (5 A), F20 (15 A), F25 (5 A), F39 (10 A)** in the passenger compartment fuse and relay box **(component code 1016)**. Replace the fuse if necessary.
Check the presence and condition of the rear fog lights relay **(component code 230) (20A)**. Replace the rear fog lights relay **(component code 230)** if necessary.
Check the correct positioning and condition of the bulb concerned. Replace the light if necessary.
Check the condition and connection of the light concerned (bent, oxidised, broken tabs).
connection of the UCH **PE2** connector **(component code 645)** (tabs bent, oxidised, broken).
Check the condition and connection of the control stalk connector **(component code 209)** (tabs bent, oxidised, broken).
Check for **+ 12 V** (when there is a rear fog lights request) on connection **9P** of components **172** and **173.** Check for **earth** on connection **MF** of component **172** and connection **MYH** on component **173**. 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.

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

DF109 CONTINUED	

Rear fog lights and rear fog light relay check:
Check **the insulation, continuity and the absence of interference resistance** on the following connections:

Right-hand rear fog light:
- Connection code **9P** between components **172 and 230**.

Left-hand rear fog light:
- Connection code **9P** between components **173 and 230**.

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 for **+ 12 V** (when there is a rear fog lights request) on connection **9W** of component **230.** Check for **+ 12 V** on connection **BP16** of component **230**.

Rear fog lights relay check:
Check **the insulation, continuity and the absence of interference resistance** of the following connections:
- Connection code **9W** between components **230** and **645**.
- Connection code **BP16** between components **230 and 1016**.

Control stalk check **(component code 209):**
Check **the insulation, continuity and the absence of interference resistance** of the following connections:

Check between the control stalk (component code 209) and the UCH (component code 645):
- Connection code **9B** between components **645** and **209**.

Check between the control stalk (component 209) and the passenger compartment fuse and relay box (component code 1016):
- Connection code **BPA2** between components **209** and **1016**.
- Connection code **BPA3** between components **209** and **1016**.

Connection code **MAM** (for right-hand drive vehicles) or **MAN** (for left-hand drive vehicles) between component **209** and earth **MAM** (for right-hand drive vehicles) or **MAN** (for left-hand drive vehicles)**.**
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 for **+ 12 V** on connections **BPA2** and **BPA3** of component **209**.
Check for **earth** on connection **MAM** (for right-hand drive vehicles) or **MAN** (for left-hand drive vehicles) of component **209**.
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 **supplies** and connections of the control stalk **(component code 209**) are correct, replace the control stalk **(component code 209)**. (See **MR 411 Mechanical 84A, Control - Signals, Lighting - signals switch: Removal - Refitting).**

If the problem is still present, contact the Techline.

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

DF133 PRESENT OR STORED	DEADLOCKING MOTOR(S) CIRCUIT CC.1: Short circuit to + 12 volts CO.0: Open circuit or short circuit to earth

NOTES	**Conditions for applying the fault finding procedure to stored faults:** If the fault reappears as present after: The ignition is switched on and the deadlocking button has been pressed. OR Activation of **AC035 Deadlocking**. Check that **LC003 Deadlocking** is definitely **With. Otherwise, perform CF009 Deadlocking.** Check that **LC040 Locking when driving** is definitely **With. Otherwise, perform CF008 Locking when driving.** **Ensure that the central door locking is correctly fixed; there must be no objects preventing the central door locking from operating correctly.** **Check that the doors and tailgate are closed correctly during the electrical checks.**

Check the presence and condition of fuse **F14 (20 A)** in the passenger compartment fuse and relay box **(component code 1016)**.
Replace the fuse if necessary.

Check the condition and connection of connectors **PE1, PE2** and **PE3** of the UCH **(component code 645)** (tabs bent, oxidised, broken).
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 the condition and connection of the electric central door locking connectors for the driver's and passenger's doors (tabs bent, oxidised, bent etc.).
If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.

When deadlocking, check the signal status on components **140 and 141** of the following connections using an oscilloscope (refer to **test1 Central door locking**).

Right or left-hand door locks:

Oscilloscope red test pin on connection **20AP** of component **140 or 141**.
Oscilloscope black test pin on connection **20C** of component **140 or 141**.

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.

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

DF133 CONTINUED 1	

When unlocking, check the signal status on components **140 and 141** of the following connections using an oscilloscope (refer to **test2 Central door unlocking**).

Right or left-hand door locks:

Oscilloscope red test pin on connection **20D** of component **140 or 141**.
Oscilloscope black test pin on connection **20C** of component **140 or 141**.

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.

Central door deadlocking check:
Check **the insulation, continuity and the absence of interference resistance** of the following connections:

- Connection code **20C** between components **140 or 141** and **645**.
- Connection code **20D** between components **140 or 141** and **645**.
- Connection code **20AP (specific to deadlocking)** between components **140 or 141** and **1042**.
- Connection code **MAN** between component **140** and **earth MAN** (for left-hand drive vehicles) and connection code **MAM** between component **141** and **earth MAM** (for right-hand drive vehicles).

For manual gearbox:
- Connection code **86H** between components **140 or 141 and 1016**.

For sequential gearbox:
- Connection code **H24** between components **140 and 1016**.

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.

Central door locking relay check (for deadlocking):
Check **the insulation, continuity and the absence of interference resistance** of the following connections:

- Connection code **BP3** between components **1042** and **1016**.
- Connection code **MAM** between component **1042** and **earth MAM**.
- Connection code **20AP** between components **1042** and **645**.

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 supply** and the **earth** of the central door locking relay (specific to deadlocking) are correct, replace the relay.

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

DF133 CONTINUED 2	

If the **supplies**, central door locking connections, locking relay (specific to deadlocking) and central door locking are correct, check the warning/central door locking switch **(component code 1391)**.
Central door locking/warning switch check: Check **the insulation, continuity and the absence of interference resistance** of the following connections: ● Connection code **20AW** between components **645** and **1391.** ● Connection code **20M** between components **645** and **1391**. 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 connections are correct, replace the door lock concerned.
If the problem is still present, contact the Techline.

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

DF134 PRESENT OR STORED	HAZARD WARNING LIGHTS INDICATOR LIGHT CIRCUIT CC.0: Short circuit to earth or short circuit to + 12 V

NOTES	**Conditions for applying the fault finding procedure to stored faults:** If the fault reappears as present after: Switching on the ignition and pressing the hazard warning lights button. OR Activating **AC52 Hazard warning lights indicator light**. Note: If the hazard warning lights do not light up during **emergency braking**, check that **LC018 Illumination of hazard warning lights by ABS** is definitely **With**. **Otherwise, run CF024 Illumination of hazard warning lights by ABS.**

Check the presence and condition of fuse **F42 (10 A)** in the passenger compartment fuse and relay box **(component code 1016)**.
Replace the fuse if necessary.

Check the condition and connection of the central door locking/warning switch connector **(component code 1391)** (tabs broken, bent, oxidised).

Check the condition and connection of connectors **PE1 and PE2** of the UCH **(component code 645)** (tabs bent, oxidised, broken).

Check for **+ 12 V** on connection **LPD** of the locking/warning switch **(component code 1391)**.
Check for **earth** on connection **MAN** of the **locking/warning switch (component code 1391)**.
If the connector or 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.

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

- Connection code **64F** between components **1391 and 645**.
- Connection code **64Q** between components **1391 and 645**.
- Connection code **MAN** between component **1391** and **earth MAN**.
- Connection code **LPD** between components **1391 and 1016**.
- Connection code **20AM** between components **1391 and 645**.
- Connection code **20AW** between components **1391 and 645**.

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 supply, earth** and connections are correct, replace the door locking/warning switch **(component code 1391)** (see **MR 411 Mechanical 84A, Control - Signals, Hazard warning lights and central door locking: Removal - Refitting**).

If the problem is still present, contact the Techline.

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

DF135 **DF136** **PRESENT** **OR** **STORED**	RAIN DETECTOR LIGHT SENSOR 1.DEF: Internal electronic fault

NOTES	**Conditions for applying the fault finding procedure to stored faults:** If the fault reappears as present after: Switching on the ignition, activating automatic headlight lighting by moving the control stalk twice in quick succession as follows: control stalk **(component code 209)** to position zero AE control stalk **(component code 209)** to side lights position. **Status ET114 "Wiper request from rain sensor" should be "Low speed" or "High speed" when the water runs over the position of the rain/light sensor on the windscreen** or **status ET115 "Request for lights to be switched on from light sensor" should** be **"Present" when an opaque cover is placed over the rain/light sensor**. Note: If there is an open circuit on connection **BPT**, there will be a malfunction on the electric window winders, on the rain/light sensor, on the interior lights and the boot lighting.

Check that the vehicle has a rain/light sensor **(component code 1415)**.
Check that the vehicle is configured with a rain/light sensor **(component code 1415)**. Check that **LC044 Rain/light sensor** is **Present**. **If not, perform CF035 Rain/light sensor.** Check that **LC096 Automatic wiper function** displays **With**. **If not, carry out CF194 "Automatic wiper function".** **Check that LC095 Automatic headlight function** displays **With**. **If not, carry out CF193 "Automatic headlight function".**
Check the condition and position of supply fuses **F2 (15 A), F8 (15 A), F19 (5 A), F27 (5 A**) according to the equipment, **F29 (15 A**) of the rain/light sensor **(component code 1415)** on the passenger compartment fuse and relay box **(component code 1016)**. Replace the fuse if necessary.
Check the condition and connection of the 3-track connector of the rain/light sensor **(component 1415)** (tabs bent, broken or oxidised). Check the condition and connection of the **PE2** connector of the UCH, **(component code 645)** (tabs bent, oxidised, broken).
Check for **+ 12 V** on **connection BPT** of component **1415**. Check for **earth** on **connection MAM** of component **1415**.

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

DF135 **DF136** **CONTINUED**	

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

- Connection code **BPT** between components **1415** and **645**.
- Connection code **14S** between components **1415** and **645**.
- Connection code **MAM** between component **1415 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 connections are correct, replace the rain/light sensor (**component code 1415**). (See **MR 411 Mechanical 85A, Wiping - Washing, Rain and light sensor: Removal - Refitting**).

If the problem is still present, contact the Techline.

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

DF137 PRESENT OR STORED	UCH - ALTERNATOR CONNECTION CO : Open circuit 1.DEF : Dialogue disrupted CC.0 : Short circuit

NOTES	**The fault is declared present after:** Switching on the ignition, starting the engine and waiting **30 seconds**. Check that the engine type is entered correctly using the configuration reading "Check that **LC023 Engine Type is correct". Otherwise perform CF028 Engine type.** **Customer complaint**: The battery warning light comes on when the fault appears and goes out **10 seconds** after the fault disappears. Note: For petrol vehicles, the fault can be linked to a fault on the anti-interference capacitor if it is present.

Check the condition and connection of the 2-track connector of the alternator **(component code 103)** and connector **PE1** of component **645** (tabs bent, oxidised, broken).

Check that the voltage is between **5 V** and **10 V** on **connection 2N** between components **103 and 645**.

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

- Connection code **2N** between components **103** and **645**.
- Connection code **BPDA** between components **103** and **163**.

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 problem is still present, contact the Techline.

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

DF138 PRESENT OR STORED	ALTERNATOR 1.DEF: Mechanical or electrical fault 2.DEF: Temperature fault

NOTES	**The fault is declared present after:** Switching on the ignition, starting the engine and waiting **1 minute** in the event of an electrical or mechanical fault. In the event of a temperature fault, run the engine until the engine cooling fans are triggered. **Effect on system:** The fault is hidden for **3 seconds**, the alternator voltage setpoint is **14.3 V** and the on-board network voltage is equal to **14.3 V** if the alternator can still regulate. Regulation resumes as soon as the fault disappears. **Effect on system:** The battery warning light comes on when the fault appears and goes out as soon as the fault disappears.

Check for the presence, condition and fitting of the alternator belt. (See **MR 411, Mechanical, 11A, Top and front of engine, Accessories belt: Removal - Refitting**).
Remove the accessories belt **(MR411, Mechanical, 11A Top and front of engine, Accessories belt, Removal - Refitting)**.
Check that the alternator pulley is not offset against its axis.
Check that the alternator pulley turns freely on its axis.
Check that the continuity and electrical insulation of the rotor coil is correct. Check that there is no sign of the rotor overheating. (See **MR 411, Mechanical 16A, Starting - Charging, Charging circuit: Check).**
Perform a charging circuit test (see **80A, Battery**).
If the fault is still present, replace the alternator **(component code 103)** (see **MR 411, Mechanical 16A, Starting - Charging, Alternator: Removal - Refitting).**

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

DF139 PRESENT OR STORED	COURTESY LIGHT CC.1: Short circuit to + 12 volts

NOTES	**The fault is declared present after:** Opening at least one door. OR Running **AC063 Switching the interior lights on and off**. Check the correct operation of status **ET463 Door(s) or tailgate**.

Check the condition and connection of the 6-track connector of the front interior lighting **(component code 213)** and connector **PE1** of component **645** (tabs bent, oxidised, broken).
Check for **+ 12 V** on **connection BPT** of component **213**.
Check **the continuity and insulation** of the following connections: ● Connection code **BTP,** between components **213** and **645**. ● Connection code **13E** between components **213** and **645**. ● Connection code **MAM** between component **213** and **earth MAM**. 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 the operation of the rabbet switches using **ET463 Door(s) and tailgate**.
If **the supply, earths** and connections are correct, replace the courtesy light (**component code 213**). (See **MR 411, Mechanical 81B, Interior lighting, courtesy light: Removal - Refitting**).
If the problem is still present, contact the Techline.

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

DF140 PRESENT OR STORED	VOLTAGE REGULATION 1.DEF: Voltage too low 2.DEF: Voltage too high

NOTES	**The fault is declared present after:** switching on the ignition and waiting **1 minute**. Note: The on-board network voltage is less than **0.89 times** the battery voltage setpoint. The battery may be used to supply all of the energy. The alternator voltage setpoint is fixed as soon as the fault appears. Once the fault has been confirmed, the alternator voltage setpoint is **14.3 V**. Regulation resumes as soon as the fault disappears. **Effect on system:** The battery warning light comes on when the fault appears and goes out as soon as the fault disappears.

Run command **AC130 Alternator regulation without any electrical consumers:**
- Wait **20 seconds**.
- For **10 seconds**, the voltage of the **alternator (component code 103)** should be equal to **15 V +/- 0.2 V** at the battery terminals**.**
- Wait **20 seconds**.
- For **10 seconds**, the voltage of the **alternator (component code 103)** should be equal to **13 V +/- 0.2 V** at the battery terminals.

If the voltages are not correct (see 80A, Battery, and see 16A, Starting charging).

Run command **AC130 Alternator regulation without any electrical consumers:**
- Wait **20 seconds**.
- For **10 seconds** the voltage of the **alternator (component code 103)** should be equal to **15 V + /- 0.2 V** at the terminals of the alternator (between the + terminal of the **alternator (component code 103)** and the engine earth).
- Wait **20 seconds**.
- **For 10 seconds** the voltage of the alternator should be equal to **13 V + /- 0.2 V** at the terminals of the **alternator (component code 103)** (between the + terminal of the **alternator (component code 103)** and the engine earth).

If the voltages are not correct, check the conformity of the engine earth.

Check the condition and connection of the **1-track** connector of component **103** (tabs bent, oxidised, broken).

Check for **+ 12 V** on **connection BPDA** of component **103**.

Check **the continuity and insulation** of the following connections:
- Connection code **BPDA** between components **103** and **163**.
- Connection code **2N** between components **103** and **645**.

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 problem is still present, contact the Techline.

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

DF212 PRESENT OR STORED	ALARM CIRCUIT CC.0: Short circuit to earth

NOTES	**If the vehicle is fitted with an alarm:** **Check that the vehicle is configured with an alarm (component code 442).** Check that **LC126 Alarm** is definitely **With. Otherwise, perform CF229 Alarm**.

Check the condition and presence of fuses **F6 (15 A)** and **F46 (15 A)**. Replace if necessary.

Check the condition and connection of the horn connector **(component code 442)** (tabs bent, oxidised, broken).

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

- Connection code **20M** between components **442** and **645**.
- Connection code **64Q** between components **442** and **645**.
- Connection code **AP3** between components **442** and **260**.
- Connection code **BCP4** between components **442** and **260**.
- Connection code **MG** between component **442** and **earth**.
- Connection code **80A** between components **442** and **438**.

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 problem is still present, contact the Techline.

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

NOTES	Only carry out this conformity check after a **complete check** with the **diagnostic tool** (fault reading and configuration checks). **Application condition:** engine stopped, + after ignition feed present.

MAIN SCREEN

Function	Parameter or Status Checked or Action		Display and notes	Fault finding
Electrical supplies	**PR001:**	Battery voltage	**9 V < X < 16 V**	In the event of a fault, run fault finding **on the charging circuit (see 80A, Battery)**.
Ignition switch position	**ET239:**	Ignition switch position	**+ after ignition feed.**	In the event of a fault, refer to the interpretation of status **ET239**.
Brake pedal	**ET047:**	Brake pedal position	**DEPRESSED** **RELEASED**	In the event of a fault, refer to the interpretation of status **ET047**.
Engine operation.	**ET142:**	Engine operating phase	**STOPPED** **STARTING** **RUNNING** **STALLED**	In the event of a fault, consult the interpretation of status **ET142**.
Engine speed	**PR025:**	Engine speed	**0 rpm**	In the event of a fault, run fault finding on the **injection system** (see **13B, Diesel injection** or **17B, Petrol injection**).
Vehicle speed	**PR008:**	Vehicle speed	**0 mph**	In the event of a fault, run fault finding on the **ABS** system (see **38C, Anti-lock braking system**).

NOTES	Only carry out this conformity check after a **complete check** with the **diagnostic tool** (fault reading and configuration checks). **Application condition:** engine stopped, + after ignition feed present.

SUB-FUNCTION: PROTECTION

Function	Parameter or Status Checked or Action	Display and Notes	Fault finding
Engine immobiliser	**ET046:** Engine immobiliser	**INACTIVE** = Vehicle unprotected, ready to start. **ACTIVE** = Vehicle protected, starting impossible.	In the event of a fault, refer to the interpretation of status **ET046**. **And (see 87B, Passenger compartment connection unit).**
	ET008: blank UCH	**YES** = If the UCH is blank. **NO** = If the UCH has been programmed with an immobiliser code.	In the event of a fault, refer to the **interpretation of status ET008**. **And (see 87B, Passenger compartment connection unit).**
Key	**ET185:** Key code received	**YES** = If the UCH has received the immobiliser code from the key. **NO** = If the UCH does not receive the immobiliser code from the key.	In the event of a fault, refer to the **interpretation of status ET185**. **And (see 87B, Passenger compartment connection unit).**
	ET181: Key allocated to the vehicle	**YES** = The key is allocated to the vehicle. **NO** = The key is not allocated to the vehicle.	In the event of a fault, refer to the **interpretation of status ET181**. **And (see 87B, Passenger compartment connection unit).**

NOTES	Only carry out this conformity check after a **complete check** with the **diagnostic tool** (fault reading and configuration checks). **Application condition:** engine stopped, + after ignition feed present.

SUB-FUNCTION: PROTECTION (CONTINUED)

Function	Parameter or Status Checked or Action		Display and Notes	Fault finding
Key	**ET045:**	Radio frequency signal received	**YES** = When the UCH receives a radiofrequency signal. NO = When the UCH does not receive a Radiofrequency signal.	In the event of a fault, refer to **the interpretation of status ET045**.
	ET193:	Radiofrequency signal from a key allocated to the vehicle	**PRESENT** = Reception of a signal Radiofrequency signal from a key allocated to the vehicle. **ABSENT** = No reception of signal Radiofrequency or signal Radiofrequency signal from a key not allocated to the vehicle	In the event of a fault, refer to **the interpretation of status ET193**.
	ET240:	Key frequency (in MHz)	**433** **NONE**	If **NONE**, refer to the **interpretation of status ET240**.
	PR056:	Number of keys allocated	**X** ≤ **4** key(s)	In the event of a fault, refer to the **interpretation of fault PR056**.
Injection	**ET229:**	Injection immobiliser code	**PROGRAMMED** **NOT PROGRAMMED** **UNDETERMINED**	In the event of a fault, consult **the interpretation of status ET229**.
	ET250:	Injection	**NOT PROTECTED** **PROTECTED**	In the event of a fault, refer to **the interpretation of status ET250**. **(See 17B, Petrol Injection, Conformity check, Protection) or (see 13B, Diesel Injection, Conformity check, Protection).**
Starter actuator	**ET239:**	Ignition switch position	INACTIVE + ACCESSORIES + after ignition feed. + START FEED	In the event of a fault, refer to **the interpretation of status ET239**.

NOTES	Only carry out this conformity check after a **complete check** with the **diagnostic tool** (fault reading and configuration checks). **Application condition:** engine stopped, + after ignition feed present.

SUB-FUNCTION: ACCESS

Function	Parameter or Status Checked or Action		Display and notes	Fault finding
Tailgate	**ET061:**	Open tailgate request	**PRESENT** **ABSENT**	In the event of a fault, apply the **interpretation of status ET061**.
	ET463:	Door(s) or tailgate	**OPEN** **CLOSED**	In the event of a fault, apply the **interpretation of status ET463**.
Locking/unlocking button	**ET186:**	Short press on door closing button	**Signal can be interpreted if the ignition is switched off (key removed from the ignition switch).** **ACTIVE** = Remote control door closing button pressed for longer than **2 seconds**. INACTIVE **= Button not pressed or pressed for less than 2 seconds.**	In the event of a fault, refer to the **interpretation of status ET186**.
	ET189:	Long press on door opening button	**ACTIVE** **INACTIVE**	In the event of a fault, refer to the **interpretation of status ET189**.
Electric central locking button	**ET044:**	Central Locking button	**DEPRESSED** **RELEASED**	In the event of a fault, refer to the **interpretation of status ET044**.
One touch window / SR*.	**ET087:**	One-touch window / SR* authorisation.	**PRESENT** **ABSENT**	In the event of a fault, apply the **interpretation of status ET087**.
Locking command	**AC004:**	Central door locking	This command is used to test whether central door locking is working	In the event of a fault, consult **the procedure for dealing with command AC004**.

* SR: Sunroof.

NOTES	Only carry out this conformity check after a **complete check** with the **diagnostic tool** (fault reading and configuration checks). **Application condition:** engine stopped, + after ignition feed present.

SUB-FUNCTION: ACCESS (CONTINUED)

Function	Parameter or Status Checked or Action	Display and Notes	Fault finding
Deadlocking command	**AC035:** Deadlocking	This command is used to test the operation of the deadlocking, if the vehicle is configured **WITH** deadlocking.	In the event of a fault, refer to the interpretation of fault **DF133**.
Door unlocking switch	**AC005:** Central door unlocking	This command is used to test whether the 4 doors, tailgate and fuel filler flap unlocking function is operating correctly.	In the event of a fault, consult **the procedure for dealing with command AC005**.
Tailgate opening control	**AC061:** Tailgate opening	This command is used to test whether the tailgate opening motor is working.	In the event of a fault, consult **the procedure for dealing with command AC061**.

NOTES	Only carry out this conformity check after a **complete check** with the **diagnostic tool** (fault reading and configuration checks). **Application condition:** engine stopped, + after ignition feed present.

SUB-FUNCTION: STARTING

Function	Parameter or Status Checked or Action		Display and notes	Fault finding
Engine	**ET239:**	Ignition switch position	**INACTIVE** **+ ACCESSORIES** **+ after ignition feed.** **+ START FEED**	In the event of a fault, refer to the **interpretation of status ET239**. **(See 17B, Petrol Injection, Conformity check, Protection) or (see 13B, Diesel Injection, Conformity check, Protection).**
	ET142:	Engine operating phase	**STOPPED** **STARTING** **RUNNING** **STALLED**	In the event of a fault, refer to the **interpretation of status ET142**. **(See 17B, Petrol Injection, Conformity check, Protection) or (see 13B, Diesel Injection, Conformity check, Protection).**
	PR025:	Engine speed	**0 rpm**	In the event of a fault, carry out a fault finding on the **multiplex network** (see **88B**). **(See 17B, Petrol Injection, Conformity check, Protection) or (see 13B, Diesel Injection, Conformity check, Protection).**

NOTES	Only carry out this conformity check after a **complete check** with the **diagnostic tool** (fault reading and configuration checks). **Application condition:** engine stopped, + after ignition feed present.

FUNCTION: AIR CONDITIONING
SUB-FUNCTION: USER SELECTION

Function	Parameter or Status Checked or Action		Display and Notes	Fault finding
User selection	**ET028:**	Heated rear screen button	DEPRESSED RELEASED	In the event of a fault, refer to the **interpretation of status ET028**.
	ET029:	Air conditioning button	DEPRESSED RELEASED	In the event of a fault, refer to the **interpretation of status ET029.**
	ET015:	Passenger compartment blower	**RUNNING** **STOPPED**	In the event of a fault, refer to the **interpretation of status ET015**.
	AC015:	Air conditioning button indicator light	This command is used to test the operation of the air conditioning button indicator light.	In the event of a fault, refer to the **interpretation of DF042**.
	AC019:	Heated rear screen indicator light	This command is for testing operation of the heated rear screen indicator light.	In the event of a fault, refer to the **interpretation of DF041**.
	AC020:	CPE* button indicator light	This command is used to operate the electric central locking button.	In the event of a fault, refer to the **interpretation of DF082**.
	AC052:	Hazard warning lights indicator light	**This command is used to activate the hazard warning lights.**	In the event of a fault, refer to the **interpretation of DF134**.

* CPE: Electric central door locking.

NOTES	Only carry out this conformity check after a **complete check** with the **diagnostic tool** (fault reading and configuration checks). **Application condition:** engine stopped, + after ignition feed present.

FUNCTION: AIR CONDITIONING
SUB-FUNCTION: HEATING

Function	Parameter or Status Checked or Action		Display and notes	Fault finding
Heating	**ET015:**	Passenger compartment blower	**RUNNING** **STOPPED**	In the event of a fault, consult **the interpretation of status ET015**.
	ET239:	Ignition switch position	**+ after ignition feed.** **STARTING** **ACCESSORIES FEED**	In the event of a fault, refer to **the interpretation of status ET239**.
	PR025:	Engine speed	**0 rpm**	In the event of a fault, carry out a fault finding on the **multiplex network** (see **88B**). **And (see 17B, Petrol Injection, Conformity check, Protection) or (see 13B, Diesel Injection, Conformity check, Protection)**.
	PR001:	Battery voltage	**9 V < X < 16 V**	In the event of a fault, run fault finding **on the charging circuit (see 80A, Battery)**.
	PR002:	External temperature	**°C**	In the event of a fault, refer to the **interpretation of parameter PR002**.
	PR024:	Engine coolant temperature	**°C**	In the event of a fault **(see 17B, Petrol Injection, Conformity check, Protection) (see 13B, Diesel Injection, Conformity check, Protection)**.
	AC060:	Rear screen de-icer	This command is used to test the operation of the rear screen de-icer.	In the event of a fault, refer to the **interpretation of command AC060**.
	AC110:	Temperature display	**Important:** this command lasts approximately **30 seconds**. This command is for testing the display.	In the event of a fault, refer to the **interpretation of command AC110**.

NOTES	Only carry out this conformity check after a **complete check** with the **diagnostic tool** (fault reading and configuration checks). **Application condition:** engine stopped, + after ignition feed present.

FUNCTION: AIR CONDITIONING
SUB-FUNCTION: COLD LOOP

Function	Parameter or Status Checked or Action	Display and notes	Fault finding
Cold loop	**PR002:** External temperature	**°C**	In the event of a fault, refer to the **interpretation of parameter PR002**.
	ET142: Engine operating phase	**STOPPED** **STARTING** **RUNNING** **STALLED**	In the event of a fault, refer to the **interpretation of status ET142**.
	ET015: Passenger compartment blower	**RUNNING** **STOPPED**	In the event of a fault, refer to the **interpretation of status ET015**.
	ET030: Air conditioning request	This request is sent by the UCH to the engine management computer. There are two possible scenarios: **1st scenario**: vehicle equipped with manual air conditioning. The request is made by pressing the air conditioning button. **2nd scenario**: vehicle equipped with climate control. The request is made following a user request or climate control computer request.	In the event of a fault, refer to the **interpretation of status ET030**.
	PR025: Engine speed	**0 rpm**	In the event of a fault, run fault finding on the multiplex network (see **88B, Multiplex**) then run fault finding on the injection system (see **13B, Diesel injection or 17B, Petrol injection**).

NOTES	Only carry out this conformity check after a **complete check** with the **diagnostic tool** (fault reading and configuration checks). **Application condition:** engine stopped, + after ignition feed present.

LIGHTING FUNCTION
SUB-FUNCTION: LIGHTING CONTROL

Function	Parameter or Status Checked or Action	Display and notes	Fault finding
Lighting control	**ET081:** Lighting switch position	**SIDE** **DIPPED** **MAIN BEAM** **HEADLIGHTS** **HAZARD LIGHTS**	In the event of a fault, refer to the interpretation for status **ET081**.
	ET085: Hazard warning lights button	**DEPRESSED** **RELEASED**	In the event of a fault, refer to the interpretation for status **ET085**.
Lighting request	**ET115:** Request to switch on lights by light sensor	**PRESENT** **ABSENT**	In the event of a fault, refer to the interpretation for status **ET115**.
	ET111: Front fog lights request	**PRESENT** **ABSENT**	In the event of a fault, refer to the interpretation for status **ET111**.
	ET082: Rear fog lights request	**PRESENT** **ABSENT**	In the event of a fault, refer to the interpretation for status **ET082**.
	ET083: Left-hand indicator request	**PRESENT** **ABSENT**	In the event of a fault, refer to the interpretation of statuses **ET083 and ET084**.
	ET084: Right-hand indicator request	**PRESENT** **ABSENT**	
Tailgate	**ET463:** Door(s) or tailgate	**OPEN** **CLOSED**	In the event of a fault, consult the interpretation of status **ET463**.
Vehicle speed	**PR008:** Vehicle speed	**0 mph**	In the event of a fault, run fault finding on the **ABS** system (see **38C, Anti-lock braking system**).

NOTES	Only carry out this conformity check after a **complete check** with the **diagnostic tool** (fault reading and configuration checks). **Application condition:** engine stopped, + after ignition feed present.

SUB-FUNCTION: LIGHTING OUTPUT

Function	Parameter or Status Checked or Action	Display and notes	Fault finding
Front fog lights	**AC008:** Front fog lights	**This command is used to activate the front fog light.**	In the event of a fault, apply the **interpretation of DF108**.
Rear fog lights	**AC009:** Rear fog lights	**This command is used to activate the rear fog light.**	In the event of a fault, apply the **interpretation of DF109**.
Direction indicators	**AC022:** Left-hand direction indicators	This command is used to activate the left-hand direction indicators.	In the event of a fault, refer to the **interpretation for fault DF013 Left-hand direction indicator circuit**.
	AC023: Right-hand direction indicators	This command is used to activate the right-hand direction indicators.	In the event of a fault, refer to the **interpretation for fault DF012 Right-hand direction indicator circuit**.
Lights	**AC055:** Side lights	This command enables the side lights to be activated.	In the event of a fault, apply the **interpretation of DF087**.
	AC054: Dipped headlights	This command enables the dipped beam headlights to be activated.	In the event of a fault, apply the **interpretation of DF088**.

NOTES	Only carry out this conformity check after a **complete check** with the **diagnostic tool** (fault reading and configuration checks). **Application condition:** engine stopped, + after ignition feed present.

SUB-FUNCTION: LIGHTING OUTPUT (CONTINUED)

Function	Parameter or Status Checked or Action	Display and Notes	Fault finding
Lights (continued)	**AC062:** Main beam headlights	This command enables the headlights to be activated.	In the event of a fault, apply the **interpretation of DF098**.
	AC063: Progressive switching on and off of the courtesy light	This command is used to check that the gradual courtesy light activation and deactivation function is operating correctly.	In the event of a fault, apply the **interpretation of DF139**.
Temperature display	**AC110:** Temperature display	Controls the display.	In the event of a fault, apply the **interpretation of command AC110**.

NOTES	Only carry out this conformity check after a **complete check** with the **diagnostic tool** (fault reading and configuration checks). **Application condition:** engine stopped, + after ignition feed present.

SUB-FUNCTION: WIPING CONTROL

Function	Parameter or Status Checked or Action		Display and notes	Fault finding
Wiper control	**ET077:**	Wiper stalk position	**INACTIVE** **INTERMITTENT** **LOW-SPEED** **HIGH SPEED**	In the event of a fault, apply the **interpretation of status ET077**.
	ET096:	Wiper stalk intermittent speed ring position	**1** **2** **3** **4** **5**	In the event of a fault, apply **the interpretation of status ET096**.
	ET114:	Windscreen wiper request by rain sensor	**ABSENT** **LOW-SPEED** **HIGH SPEED**	In the event of a fault, apply the **interpretation of status ET114**.
Windscreen wiper park position	**ET078:**	Windscreen washer request	**ACTIVE** **INACTIVE**	In the event of a fault, apply the **interpretation of status ET078**.
	ET027:	Windscreen wiper park position	**ACTIVE** **INACTIVE**	In the event of a fault, apply the **interpretation of status ET027**.
Rear screen wiper park position	**ET079:**	Rear screen washer request	**ACTIVE** **INACTIVE**	In the event of a fault, apply the **interpretation of status ET079**.
	ET097:	Rear screen wiper park position	**ACTIVE** **INACTIVE**	In the event of a fault, apply the **interpretation of fault ET097**.
	ET080:	Windscreen rear screen wiper	**ACTIVE** **INACTIVE**	In the event of a fault, apply the **interpretation of status ET080**.
Reverse gear	**ET109:**	Reverse gear engaged	**YES** **NO**	In the event of a fault, apply the **interpretation of status ET109**.

NOTES	Only carry out this conformity check after a **complete check** with the **diagnostic tool** (fault reading and configuration checks). **Application condition:** engine stopped, + after ignition feed present.

SUB-FUNCTION: WIPING POWER

Function	Parameter or Status Checked or Action	Display and Notes	Fault finding
Rear screen wiper	**AC007:** Rear screen wiper	**This command is used to operate the rear screen wiper.**	In the event of a fault, apply the procedure for dealing **with command AC007**.
Wiper speed	**AC058:** Intermittent wiper operation	**This command is used to operate the intermittent windscreen wiper action.**	In the event of a fault, apply the procedure for dealing with command **AC058**.
	AC056: Low-speed wiper	**This command is used to operate the windscreen wipers at low speed.**	In the event of a fault, apply the procedure for dealing with command **AC056**.
	AC057: High-speed wiper	**This command is used to operate the windscreen wipers at high speed.**	In the event of a fault, apply the procedure for dealing with command **AC057**.

NOTES	Only carry out this conformity check after a **complete check** with the **diagnostic tool** (fault reading and configuration checks). **Application condition:** engine stopped, + after ignition feed present.

SUB-FUNCTION: BATTERY

Function	Parameter or Status Checked or Action	Display and notes	Fault finding
Battery voltage	**PR001:** Battery voltage	**9 V < X < 16 V**	In the event of a fault, run fault finding **on the charging circuit (see 80A, Battery)**.
	PR074: Battery setpoint voltage	**Indicates the battery setpoint in V.**	In the event of a fault, apply the **interpretation of parameter PR074**.
	PR076: Battery voltage after rest	**Indicates the battery voltage after rest in V.**	In the event of a fault, apply the **interpretation of parameter PR076**.
Alternator operation	**ET142:** Engine operating phase	**STOPPED** **STARTING** **RUNNING** **STALLED**	In the event of a fault, apply the **interpretation of status ET142**.

NOTES	Only carry out this conformity check after a **complete check** with the **diagnostic tool** (fault reading and configuration checks). **Application condition:** engine stopped, + after ignition feed present.

SUB-FUNCTION: ALTERNATOR

Function	Parameter or Status Checked or Action		Display and notes	Fault finding
Battery voltage	**PR073:**	Alternator charge signal	**Indicates the alternator charge in V.**	In the event of a fault, apply the **interpretation of parameter PR073**.
Alternator setpoint	**PR075:**	Alternator setpoint voltage	**Indicates the alternator setpoint in V.**	In the event of a fault, apply the **interpretation of parameter PR075**.
Battery voltage	**PR001:**	Battery voltage	**9 V < X < 16 V**	In the event of a fault, run fault finding on the charging circuit (**see, 80A Battery), run fault finding on the multiplex network** (see **88B, Multiplex**) and run fault finding on the injection (see **13B, Diesel injection or 17B, Petrol injection**).
Engine	**PR024:**	Engine coolant temperature	**°C**	
	PR025:	Engine speed	**rpm**	In the event of a fault, run fault finding on the multiplex network (**see 88B, Multiplex**) and run fault finding on the injection (**see 13B, Diesel injection or 17B, Petrol injection**).
	ET142:	Engine operating phase	**STOPPED STARTING RUNNING STALLED**	In the event of a fault, apply the **interpretation of status ET142**.
Alternator	**AC130:**	Alternator regulation	**Indicates the regulation of the alternator in volts.**	In the event of a fault, run fault finding **on the charging circuit (see 80A, Battery)**.

Tool status	Diagnostic tool title
ET008	Blank UCH
ET015	Passenger compartment blower
ET027	Windscreen wiper park position
ET028	Heated rear screen button
ET029	Air conditioning button
ET030	Air conditioning request 2
ET044	CPE* button
ET045	RF* signal. received
ET046	Engine immobiliser
ET047	Brake pedal position
ET061	Open tailgate request
ET077	Wiper stalk position
ET078	Windscreen washer request
ET079	Rear screen washer request
ET080	Rear screen wiper request
ET081	Lighting switch position
ET082	Rear fog lights request
ET083	Left-hand indicator request

*CPE: Electric central door locking
*RF: radio frequency

Tool status	Diagnostic tool title
ET084	Right-hand indicator request
ET085	Hazard warning lights button
ET087	One-touch window/SR* authorisation
ET096	Wiper intermittent speed ring position
ET097	Rear screen wiper park position
ET109	Reverse gear engaged
ET111	Front fog lights request
ET114	Wiping request via rain sensor
ET115	Request to switch on lights by light sensor
ET142	Engine operating phase
ET181	Key allocated to the vehicle
ET185	Key code received
ET186	Short press on door closing button
ET189	Long press on door opening button
ET193	RF* signal from a key allocated to the vehicle
ET229	Injection immobiliser code
ET239	Ignition switch position
ET240	Key frequency (in Hz)
ET250	Injection
ET463	Door(s) or tailgate

*SR: Sunroof.
*RF: radio frequency

ET008	BLANK UCH

NOTES	**No faults should be present or stored.**

SPECIFICATIONS	**YES** **NO**

ET008 is **YES**.

Program the UCH using **SC004 Program UCH**.
Apply the procedure after replacing the computer (see **Replacement of components**).

ET008 is **NO**.

If the UCH is not blank and has just been replaced, check whether the key is allocated (use command **SC018 Key check**).
If the key is not allocated, allocate the keys using command **SC015 Key allocation**.
If the key is allocated, the UCH is operational.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET015	PASSENGER COMPARTMENT FAN

NOTES	**No faults should be present or stored.** **Apply this status for vehicles fitted with manual air conditioning or heating.** **Apply the checks if there is an inconsistency between the value of the status and the air actually blown.**

SPECIFICATIONS	**RUNNING** **STOPPED**

Check the configuration of the heating and air conditioning type of the vehicle**:** – Check that **LC013 "Air conditioning type"** is **"Heating" or "Manual" or "Automatic"** according to the equipment level. **Otherwise carry out CF019 Air conditioning type.**
Check the presence and condition of fuses **F28 (30 A), F29 (15 A), F42 (10 A)** on the passenger compartment fuse and relay box **(component code 1016)**. Replace the fuse(s) if necessary.
Check the condition and connection of the connectors for the air conditioning control panel and blower unit (manual air conditioning) (tabs bent, oxidised, broken).

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET015 CONTINUED	

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

Manual air conditioning between the air conditioning control panel **(component code 319)** and the blower unit:

Connection code **38AH** between components **319 and 164**.
Connection code **38AJ** between components **319 and 164**.
Connection code **38AK** between components **319 and 164**.
Connection code **38AL** between components **319 and 164**.
Connection code **38DA** between components **164 and 1156**.
Connection code **38DB** between components **164 and 1156**.
Connection code **SP3** between components **164 and 1016**.

Between the **air conditioning control panel (component code 319)** and the UCH: Climate control:
Connection code **38LQ** between components **319 and 645**.
Connection code **15M** between components **319 and 645**.
Connection code **15A** between components **319 and 645**.
Connection code **38LQ** between components **319 and 645**.
Connection code **38ES** between components **319 and 645**.

Connection code **SP2** between component **319 and earth**.
Connection code **LPD** between component **319 and earth**.
Connection code **SP3** between components **164 and 1016**.
Connection code **SP3** between components **164 and 1428**.
Connection code **NAM** between component **319 and earth**.
Connection code **MAN** between component **319 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 Techline.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET027	WINDSCREEN WIPER PARK POSITION

NOTES	**No faults should be present or stored.** Note: The park position (rest position) is used as a reference point by the UCH when the ignition is switched off whilst the wipers are operating and is required for intermittent wiper operation.

SPECIFICATIONS	**ACTIVE** **INACTIVE**

Check that fuse **F2 (15 A)** is sound and correctly fitted in the passenger compartment fuse and relay box. Replace the fuse if necessary.
Check the condition and connection of the 5-track (OR) connector on the **windscreen wiper motor (component code 212)** and UCH connector PE3 (tabs bent, broken, oxidised).
Check that the **earth** on the **MAS** connection of component **212** is perfect. 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.
Check for **+ 12 V** on connections **14A (high speed request) 14B and 14C (low speed request)** of component **212** and on connector **PE3** of the **UCH (component code 645)**.
Check the mountings of the windscreen wiper motor **(component code 212)**. Check that there is no point of resistance on the windscreen wiper mechanism.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET027 CONTINUED	

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

Check the combined wiper-washer:

- Connection code **AP71** between components **145 and 1016**.
- Connection code **14E (windscreen wiper timed control)** between components **645 and 145**.
- Connection code **14G (low speed windscreen wiper control)** between components **645 and 145**.
- Connection code **14H (high speed windscreen wiper control)** between components **645 and 145**.
- Connection code **MAN or MAM** between component **145 and the earth MAN (left-hand drive) or MAM (right-hand drive)**.

Windscreen wiper motor check:

- Connection code **14A** between components **212 and 645**.
- Connection code **14B** between components **212 and 645**.
- Connection code **14C** between components **212 and 645**.
- Connection code **MAS** between component **212 and earth MAS**.

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 the fitting and activate the supply to the rear screen wiper motor **(component code 212)**.
Repair if necessary (see **MR 411 mechanical systems 85A, Wiping washing, Windscreen wiper mechanism: Removal - Refitting**) or replace the motor **(component code 212)** if it is defective. (See **MR 411, mechanical systems, 85A, Washing wiping, Windscreen wiper motor: Removal - Refitting**)

If the fault is still present, contact Techline.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET028	HEATED REAR SCREEN BUTTON

NOTES	**No faults should be present or stored.** **Apply this status for vehicles fitted with manual air conditioning or heating.**

SPECIFICATIONS	**PRESSED** **RELEASED**

Check the operation of the heated rear screen button indicator light using **AC019 Heated rear screen indicator light**. Check the operation of the rear de-icer using **AC060 Rear screen de-icer**.
Check that fuses **F29 (15A)** and **F42 (10 A)** are sound and correctly fitted in the passenger compartment fuse and relay box **(component code 260)**. Replace the fuse(s) if necessary.
Check the **air conditioning control panel black 9-track connector, (component code 319)** (bent, oxidised or broken tabs). If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.
Check the continuity of the **earth NAM** connection between component **NAM** and the 9-track black connector of the manual air conditioning control panel **(component code 319)**.
Check for **+ 12 V** on connection **LPD** of the manual air conditioning control panel black 9-track connector **(component code 319)**. Check for **+ 12 V** accessories feed on **connection SP2** of the manual air conditioning control panel black 9-track connector.
Check the **PE1** 40-track connector of the UCH, **component code 645** (tabs bent, oxidised, broken).

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET028 CONTINUED	

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

- Connection code **15A** between components **319 and 645**.
- Connection code **15M** between components **319 and 645**.
- Connection codes **LPD and SP2** between components **319 and 1016**.

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, replace the rear screen de-icing button **(component code 319)** (see **MR 411 mechanical systems 61A heating control panel or 62B Climate control panel**).

If the fault is still present, contact the Techline.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET029	AIR CONDITIONING BUTTON

NOTES	**No faults should be present or stored.** **Apply this status for vehicles with manual climate control or heating.**

SPECIFICATIONS	**PRESSED** **RELEASED**

Check the configuration of the heating and air conditioning type of the vehicle: – Check that **LC013 "Air conditioning type"** is **"Heating" or "Manual" or "Automatic"** according to the equipment level. **Otherwise carry out CF019 Air conditioning type.**
Check the operation of the air conditioning button indicator light **AC015 "Air conditioning button indicator light"**.
Check that fuses **F29 (15A)** and **F42 (10 A)** are sound and correctly fitted in the passenger compartment fuse and relay box **(component code 1016)**. Replace the fuse(s) if necessary.
Check the **air conditioning control panel black 9-track connector, (component code 319)** (bent, oxidised or broken tabs).
Check that the **earth** on **connection NAM** of the manual air conditioning control panel black 9-track connector is in perfect condition.
Check for **+ 12 V** accessories feed on connections **LPD** and **SP2** of the manual air conditioning control panel black 9-track connector.
Check the **PE2** 40-track connector of the UCH, **component code 645** (tabs bent, oxidised, broken). If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET029 CONTINUED	

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

- Connection code **38ES** between components **319 and 645**.
- Connection code **38LP** between components **319 and 645**.
- Connection code **LPD and SP2** between components **319 and 1016**.

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, replace the air conditioning button. (See **MR 411 mechanical systems 62C, Manual air conditioning, Control panel: Removal - Refitting**).

If the fault is still present, contact the Techline.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET030	AIR CONDITIONING REQUEST 2

NOTES	**No faults should be present or stored.** **Apply the checks if:** – the status remains **PRESENT** when a climate control request had been made, with the engine running.

SPECIFICATIONS	**ABSENT** **PRESENT**

This is the request for air conditioning sent by the UCH to the engine management computer.
This request may reach the UCH in two ways:
– In the case of a vehicle fitted with manual air conditioning, by pressing on the air conditioning button.
– In the case of a vehicle fitted with climate control, by request from the user or the climate control computer in automatic mode.

MANUAL AIR CONDITIONING	Check that status **ET142 Engine operating phase** is **RUNNING**; otherwise, carry out fault finding on the injection. Check that status **ET029 Air conditioning button** is **PRESSED** (button indicator light lit), otherwise perform fault finding on this status. Check that status **ET015 Passenger compartment blower** is **RUNNING**; otherwise, carry out fault finding on this status.
	If the fault is still present, contact Techline.
	If **ET030 Air conditioning request 2** is **Absent**, check that there are no faults in the UCH and injection system **(see 13B, Diesel injection)** or **(see 17B, Petrol injection)**.

CLIMATE CONTROL	Carry out fault finding on the climate control computer (see **62B, regulated climate control**).
	If the fault is still present, contact Techline.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET044	ELECTRIC DOOR LOCK BUTTON

NOTES	**No faults should be present or stored.** Only apply the checks if the **PRESSED** and **RELEASED** statuses are inconsistent with the actual position of the electric door locking button.

SPECIFICATIONS	**PRESSED** **RELEASED**

Check the following configurations:
- Check that **LC003 Deadlocking** is **With**. **Otherwise carry out CF009 Deadlocking.**
- Check that **LC040 Automatic locking when driving** is **With**. **Otherwise carry out CF108 Automatic locking when driving.**
- Check that **LC093 Central door locking** is **With**. **Otherwise perform CF192 Central door locking.**

Check that fuse **F42 (10 A)** is sound and correctly fitted to the passenger compartment fuse and relay box **(component code 1016)**.
Replace the fuse if necessary.

Check the condition and connection of the door lock switch/hazard warning lights switch connector **(component code 1391)** (bent, oxidised, broken tabs).

Check the condition and connection of the UCH **PE1** and **PE2** connectors **(component code 645)** (tabs bent, oxidised or broken).

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

Check for **+ 12 V** on deadlocking/warning switch connection **LPD (component code 1391)**.
Check for the **earth** on connection **MAN** of the locking / hazard warning lights switch **(component code 1391)**.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET044 CONTINUED	

Check the **insulation, continuity and the absence of interference resistance** on the following connections and press the central door locking button to check the signal status on the following connections using the oscilloscope (see signal status in **test1 "Central door locking"**):

- Connection code **64F** between components **645 and 1391**.
- Connection code **64Q** between components **645 and 1391**.
- Connection code **20M** between components **1391 and 645**.
- Connection code **20AW** between components **1391 and 645**.

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.

On component **1391**, with the lock button pressed, check the **continuity** between connections **20AW** and **MAN**.
On component **1391**, with the lock button released, check the **insulation** between connections **20AW** and **MAN**.

If the fault is still present, replace the central door locking/hazard warning lights switch **(component code 1391)**. (See **MR 411 84A, Controls - Signals, Hazard warning lights and central door locking: Removal - Refitting**).

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET045	RF* SIGNAL RECEIVED

NOTES	**No faults should be present or stored.** Only apply these checks if the status remains **NO** when a button on a key is pressed.
	Special note: This status enables you to check that the UCH is receiving the radio frequency signals transmitted by a key that may or may not belong to the vehicle.

SPECIFICATIONS	**YES** **NO**

Does the status change to “YES” after one of the other buttons on the key is pressed?

YES	Replace the key.

NO	Check the operation of this status with another key for the New Twingo, Modus or Clio III. If the status changes to **YES**, check the condition of the first key's battery. If the fault is still present, replace the key and allocate the key using command **SC015 Key allocation**. If the status remains **NO**, consult the interpretation of **DF054 Computer**.

***RF: radio frequency.**

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET046	ENGINE IMMOBILISER

NOTES	**No faults should be present or stored.** Apply the checks only if, the status remains **ACTIVE** after the ignition is switched off and back on again under the following conditions.

SPECIFICATIONS	**ACTIVE** **INACTIVE**

Check sure that **ET239 Ignition switch position** is **+ after ignition feed**. Otherwise, refer to the interpretation of this status.
Check that **ET185 Key code received** is **YES**. Otherwise, refer to the interpretation of this status.
Check that **ET181 Key allocated to vehicle** is **YES**. Otherwise, refer to the interpretation of this status.
Check that **ET008 UCH blank** is **NO**. Otherwise, refer to the interpretation of this status.
Check that **ET229 Injection immobiliser code** is **PROGRAMMED**. Otherwise, refer to the interpretation of this status.
Check that **ET250 Injection** is **NOT PROTECTED**. Otherwise, refer to the interpretation of this status.
Carry out fault finding on the multiplex network (see **88B, Multiplexing**).
If none of the computers on the vehicle has a malfunction and the statuses named in the notes are working properly, contact Techline.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET047	BRAKE PEDAL POSITION

NOTES	**No faults should be present or stored.**

SPECIFICATIONS	**PRESSED** **RELEASED**

Check the presence and condition of fuse **F5 (15 A)** in the passenger compartment fuse and relay box **(component code 1016)**. Replace the fuse if necessary.
Check the condition and connection of the brake pedal switch 4-track connector **(component code 160)**. If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.
On component **160**, with the brake pedal depressed, check the **continuity** between connections **AP10** and **5A** and the **insulation** of connections **AP10** and **65A**. On component **160**, with the brake pedal released, check the **continuity** between connections **AP10** and **65A** and the **insulation** between connections **AP10** and **5A**. Replace the switch if faulty. (See **MR 411 mechanical systems 37A, Mechanical component controls, Brake light switch: Removal - Refitting**).
Check the condition and connection of connector **PE1** of the UCH **(component code 645)** (tabs bent, oxidised, broken).
Check for **+ 12 V** (+ battery feed) on connection **AP10** of the brake switch connector **(component code 160)**. If it is not correct, check the **insulation, continuity and the absence of interference resistance** of connection **AP10** between components **160** and **1016**. 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	Repeat the conformity check from the start. Carry out fault finding on the system.

ET047 CONTINUED	

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

- Connection code **5A** between components **160 and 120**.
- Connection code **65A** between components **160 and 645**.
- Connection code **65A** between components **160 and 119**.
- Connection code **65A** between components **160 and 1094**.
- Connection code **AP10** between components **160 and 1016**.
- Connection code **65A** between components **160 and 172**.
- Connection code **65A** between components **160 and 173**.
- Connection code **65A** between components **160 and 639**.

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 all these checks are in order and the fault is still present, contact Techline.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET061	TAILGATE OPENING REQUEST

NOTES	**No faults should be present or stored.** **IMPORTANT** On entry level vehicles (without central door locking), it is necessary to open the tailgate mechanically using the key.

SPECIFICATIONS	**PRESENT** **ABSENT**

Check the following configuration: **– Check that LC093 Central door locking is With. Otherwise perform CF192 Central door locking.**
Check the condition and connection of the tailgate lock connector (bent, broken tabs, etc.).
Check the condition and connection of the **PE1** connector of the UCH, **(component code 645)** (tabs bent, broken, etc.).
Check that the **earth** on connection **MYH** of the tailgate switch and tailgate lock are in perfect condition. 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.
When unlocking, check the signal status on component **1391** of the following connections using an oscilloscope (refer to **test1 "Central door locking"**).
Tailgate lock:
Oscilloscope red test pin on connection **20S** of component **1322** → Oscilloscope black test pin on connection **MYH** of component **1322**
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.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET061 **CONTINUED**	

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

Tailgate lock check:
- Connection code **20S** between components **1322 and 645**.
- Connection code **86H** between components **1322 and 645**.

With electric central door locking:
- Connection code **20G** between components **560 and 645**.
- Connection code **MYH** between component **560 and earth MHY.**

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 Techline.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET077	WIPER STALK POSITION

NOTES	**No faults should be present or stored.** **Check the following configurations:** – **Check that LC094 "Wiper intermittent speed ring"** displays **"With"**. **If not, carry out CF191 "Wiper intermittent speed ring".** – **Check that LC096 "Automatic wiper function"** displays **"With"**. **If not, carry out CF194 "Automatic wiper function".**

SPECIFICATIONS	**INTERMITTENT** **LOW SPEED** **HIGH SPEED**

Windscreen wiper fault:

Check the condition and connection of the 3-track **windscreen wiper motor connector (component code 212)** (broken, bent, oxidised tabs). If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.
Check that fuse **F2 (15 A)** is sound and correctly fitted to the passenger compartment fuse and relay box **(component code 1016)**. Replace the fuse if necessary.
Check the condition and connection of the UCH 40-track connector **PE1 (component code 645)** (tabs bent, oxidised or broken). If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.
Check the **insulation, continuity and the absence of interference resistance** on the following connections: **Combined wiper-washer check:** ● Connection code **AP71** between components **145 and 1016**. ● Connection code **14E (windscreen wiper timed control)** between components **645 and 145**. ● Connection code **14G (low speed windscreen wiper control)** between components **645 and 145**. ● Connection code **14H (high speed windscreen wiper control)** between components **645 and 145**. ● Connection code **36E (rear screen wiper timed control)** between components **645 and 145**. ● Connection code **MAN or MAN** between component **145 and the earth MAN (left-hand drive) or MAM (right-hand drive)**. 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 problem persists, replace the wiper stalk **(component code 145)**. (See **MR 411 mechanical systems 84A, Controls - Signals, Wiper switch: Removal - Refitting**).

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET078 **ET079**	WINDSCREEN WASHER REQUEST REAR SCREEN WASHER REQUEST

NOTES	**No faults should be present or stored.**

SPECIFICATIONS	**ACTIVE** **INACTIVE**

Check that fuse **F2 (15 A)** is sound and correctly fitted to the passenger compartment fuse and relay box **(component code 1016)**.
Replace the fuse if necessary.

Check the condition and connection of the 2-track connector on the **bidirectional washer pump (component code 677)** (broken, bent, oxidised tabs).

Check the condition and connection of the UCH 40-track connector **PE1 (component code 645)** (tabs bent, oxidised or broken).
If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.

Move the monolever **(component code 209)** to check the **+ 12 V, insulation, continuity and the absence of interference resistance** on the following connections:

Check the front and rear bidirectional washer pump:
- Connection code **16A** between components **677 and 145**.
- Connection code **24A** between components **677 and 145**.
- Connection code **16A** between components **145 and 645**.
- Connection code **24A** between components **145 and 645**.

If any of the 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 connections are correct, supply the pump. If the pump does not work, replace the bidirectional washer pump **(component code 677)**. (See **MR 411, mechanical systems, 85A, Washing wiping, Windscreen washer pump: Removal - Refitting**)

If the fault is still present, contact Techline.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET080	REAR SCREEN WIPER REQUEST

NOTES	**No faults should be present or stored.** **Check the following configuration:** Check that **LC096 "Automatic wiper function"** displays **"With". If not, carry out CF194 "Automatic wiper function".**

SPECIFICATIONS	**ACTIVE** **INACTIVE**

Check that fuse **F36 (15 A)** is sound and correctly fitted to the passenger compartment fuse and relay box **(component code 1016)**. Replace the fuse if necessary.
Check the condition and connection of the 3-track rear screen wiper motor connector **(component code 211)** (broken, bent, oxidised tabs).
Activate the rear screen wiper, check for **+ 12 V** on connection **36A** of the rear screen wiper motor connector **(component code 211)**.
Check that the **earth** on connection **MYH** of the rear screen wiper motor connector **(component code 211)** is in perfect condition.
Check the condition and connection of the UCH 40-track connector **PE1 (component code 645)** (tabs bent, oxidised or broken). If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET080 CONTINUED	

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

Combined wiper-washer check:

- Connection code **AP71** between components **145 and 1016**.
- Connection code **36E (rear screen wiper timed control)** between components **645 and 145**.
- Connection code **MAN or MAM** between components **145 and the earth MAN (left-hand drive) or MAM (right-hand drive)**.
- Connection code **14E** between components **145 and 645**.
- Connection code **14H** between components **145 and 645**.
- Connection code **14G** between components **145 and 645**.

Rear screen wiper motor check:

- Connection code **36C** between components **211 and 645**.
- Connection code **36A** between components **211 and 1016**.
- Connection code **MYH** between component **211 and earth MYH**.

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 the fitting and supply of the **rear screen wiper motor (component code 211) (see MR 411, Mechanical systems 85A, Wiping)**.
Repair if necessary or replace the motor if it is faulty.

If the fault is still present, contact Techline.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET081	LIGHTING STALK POSITION

NOTES	**No faults should be present or stored.** **Check the following configurations:** – Check that **LC008 Daytime running lights** is **With**. **Otherwise carry out CF014 "Daytime running lights".** – Check that **LC015 Front fog lights** is **With**. **Otherwise run CF021 Front fog lights.** – Check that **LC025 "See-me-home lighting"** is **"With"**. **Otherwise carry out CF032 "See-me-home lighting".** – Check that **LC044 "Rain/light sensor"** displays **"Present"**. **If not, carry out CF035 "Rain/light sensor".** – Check that **LC095 "Automatic headlight function",** displays **"With"**. **If not, carry out CF193 "Automatic headlight function".**

SPECIFICATIONS	**HAZARD LIGHTS** **SIDE** **DIPPED** **MAIN BEAM HEADLIGHTS**

Check that fuses **F13 (30 A), F15 (5 A)** (without automatic headlighting) **or F15 (15A)** (with automatic headlighting) is sound and correctly fitted in the passenger compartment fuse and relay box **(component code 1016)**.

Check the condition and connection of the monolever connector **(component code 209)** and the UCH 40-track connector **PE2 (component code 645)** (tabs bent, broken or oxidised).
If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET081 **CONTINUED 1**	

Checking the monolever **(component code 209)**:
Check **the insulation, continuity and the absence of interference resistance** on the following connections:

Side lights:
With automatic headlighting:
- Connection code **78B** between components **209** and **645**.
- Connection code **BPA2** between components **1016** and **209**.
- Connection code **BPA3** between components **1016** and **209**.
- Connection code **MAN** or **MAM** between component **209** and **earth MAN** or **MAM** (depending on the driving layout, right- or left-hand drive).

Dipped headlights:
With automatic headlighting:
- Connection code **78Q** between components **209** and **645**.
- Connection code **BPA2** between components **1016** and **209**.
- Connection code **BPA3** between components **1016** and **209**.
- Connection code **MAN** or **MAM** between component **209** and **earth MAN** or **MAM** (depending on the driving layout, right- or left-hand drive).

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET081 **CONTINUED 2**	

Main beam headlights:
With automatic headlighting:
- Connection code **11Q** between components **209** and **645**.
- Connection code **11R** (headlight flash) between components **209** and **645**.
- Connection code **BPA2** between components **1016** and **209**.
- Connection code **BPA3** between components **1016** and **209**.
- Connection code **MAN** or **MAM** between component **209** and **earth MAN** or **MAM** (depending on the driving layout, right- or left-hand drive).

Fog lights:
With automatic headlighting:
- Connection code **8H (front fog light)** between components **209** and **645**.
- Connection code **9B (rear fog light)** between components **209** and **645**.
- Connection code **BPA2** between components **1016** and **209**.
- Connection code **BPA3** between components **1016** and **209**.
- Connection code **MAN** or **MAM** between component **209** and **earth MAN** or the (depending on the driving layout, right- or left-hand drive).

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 **feeds, earth** and connections are correct, replace the monolever **(component code 209)**. (See **MR 411 Mechanical systems 84A, Controls - Signals, Lighting and signals switch: Removal - Refitting**)

If the fault is still present, contact Techline.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET082	REAR FOG LIGHTS REQUEST

NOTES	**No faults should be present or stored.** Note: **The signal can only be interpreted if the function is managed by the UCH (vehicle equipped with one-touch fog light control)** **Check the following configurations:** Check that **LC008 Daytime running lights** is **With**. **Otherwise carry out CF014 "Daytime running lights".** – Check that **LC015 Front fog lights** is **With**. **Otherwise run CF021 Front fog lights.** – Check that **LC025 "See-me-home lighting"** is **"With"**. **Otherwise carry out CF032 "See-me-home lighting".** – Check that **LC044 "Rain/light sensor"** displays **"Present"**. **If not, carry out CF035 "Rain/light sensor".** – Check that **LC095 "Automatic headlight function",** displays **"With"**. **If not, carry out CF193 "Automatic headlight function".**

SPECIFICATIONS	**PRESENT** **ABSENT**

With automatic headlighting:

Check the presence and condition of fuses **F15 (5 A), F20 (15 A), F25 (5 A), F39 (10 A)** on the passenger compartment fuse and relay box **(component code 1016)**. Replace the fuse if necessary.
Check the correct positioning and condition of the bulb concerned. Replace the light if necessary.
Check the condition and connection of the light concerned (bent, oxidised, broken tabs).
Check the condition and connection of the UCH **PE2** connector **(component code 645)** (tabs bent, oxidised or broken).
Check the condition and connection of the horn and lights switch connector **(component code 209)** (tabs bent, oxidised, broken).
Check for **+ 12 V** (when rear fog lights are requested) on connection **9**P of components **172** and **173**. Check for **earth** on connection **MF** of component **172** and connection **MG** on component **173**. 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.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET082 CONTINUED 1	

Rear fog lights check:
Check **the insulation, continuity and the absence of interference resistance** on the following connections:

Right-hand rear fog light:
- Connection code **9P** between components **172 and 230**.

Left-hand rear fog light:
- Connection code **9P** between components **173 and 230**.

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 for **+ 12 V** (when there is a rear fog light request) on connection **9W** of component **230**. Check for **+ 12 V** on connection **BP16** of component **230**.
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.

Rear fog lights relay check:
Check **the insulation, continuity and the absence of interference resistance** on the following connections:

- Connection code **9W** between components **230** and **645**.
- Connection code **BP16** between components **230** and **1016**.

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.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET082 CONTINUED 2	

Checking the monolever **(component code 209)**:
Check the **insulation, continuity and the absence of interference resistance** on the following connection:

Check between the monolever (component code 209) and the UCH:
- Connection code **9B** between components **645** and **209**.

Check between the monolever (component code 209) and the passenger compartment fuse and relay box (component code 1016):
- Connection code **BPA2** between components **209** and **1016**.
- Connection code **BPA3** between components **209** and **1016**.
- Connection code **MAN** or **MAM** between component **209** and **earth MAN** or **MAM** (depending on the driving layout, right- or left-hand drive).

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 for **+ 12 V** on connections **BPA2** and **BPA3** of component **209**. Check for **earth** on connection **MAM** (for right-hand drive vehicles) or **MAN** (for left-hand drive vehicles) of component **209**.
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 **feeds** and the connections of the monolever **(component code 209)** are correct, replace the monolever **(component code 209)**. (See **MR 411 mechanical systems 84A, Controls - Signals, Lighting and signals switch: Removal - Refitting**)

If the fault is still present, contact Techline.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET083 **ET084**	LEFT-HAND INDICATOR REQUEST RIGHT-HAND INDICATOR REQUEST

NOTES	**No faults should be present or stored.** **Check the following configurations:** Check that **LC008 Daytime running lights** is **With. Otherwise carry out CF014 "Daytime running lights".** – Check that **LC015 Front fog lights** is **With**. **Otherwise run CF021 Front fog lights.** – Check that **LC025 "See-me-home lighting"** is **"With"**. **Otherwise carry out CF032 "See-me-home lighting".** – Check that **LC044 "Rain/light sensor"** displays **"Present"**. **If not, carry out CF035 "Rain/light sensor".** – Check that **LC095 "Automatic headlight function",** displays **"With"**. **If not, carry out CF193 "Automatic headlight function".**

SPECIFICATIONS	**PRESENT** **ABSENT**

Check that fuses **F13 (30A) and F15 (5 A)** are sound and correctly fitted in the passenger compartment fuse and relay box **(component code 1016)**.
Replace the fuse(s) if necessary.

Check the condition and connection of the monolever connector **(component code 209)** and the UCH 40-track connector **PE2 (component code 645)** (tabs bent, broken or oxidised).
If the connector(s) are faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET083 **ET084** **CONTINUED**	

Checking the monolever (component code 209):
Check **the insulation, continuity and the absence of interference resistance** on the following connections:

Direction indicators:
With automatic headlighting:

- Connection code **64T (left-hand indicators)** between components **209** and **645**.
- Connection code **64S (right-hand indicators)** between components **209** and **645**.
- Connection code **BPA2** between components **1016** and **209**.
- Connection code **BPA3** between components **1016** and **209**.
- Connection code **MAN** or **MAM** between component **209** and **earth MAN** or **MAM** (depending on the driving layout, right- or left-hand drive).

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 **feeds, earth** and connections are correct, replace the monolever **(component code 209)**. (See **MR 411 Mechanical systems 84A, Controls - Signals, Lighting and signals switch: Removal - Refitting**)

If the fault is still present, contact Techline.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET085	HAZARD WARNING LIGHTS BUTTON

NOTES	**There must be no present or stored faults.** **Check the following configuration:** – Check that **LC018 Hazard warning lights switched on by ABS** is definitely **With**. **Otherwise, run CF024 Illumination of hazard warning lights by ABS.**

SPECIFICATIONS	**DEPRESSED** **RELEASED**

Check the presence and condition of fuse **F42 (10 A)** in the passenger compartment fuse and relay box **(component code 1016)**. Replace the fuse if necessary.
Check the condition and connection of the central door locking/warning switch connector **(component code 1391)** (tabs broken, bent, oxidised).
Check the condition and connection of the **PE1** connector of the UCH, **(component code 645)** (tabs bent, oxidised, broken). If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.
Check for **+ 12 V** on connection **LPD** of the **locking/warning switch (component code 1391)**. Check for **earth** on connection **MAN** of the **locking/warning switch (component code 1391)**.
Check for **+ 12 V** on connection **64D** (when there is a hazard warning lights request) on components **255, 267 and 172**. Check for **earth** on components **255, 267 and 172** (indicator lights). Check for **+ 12 V** on connection **64C** (when there is a hazard warning lights request) of components **256, 268 and 173** (indicator lights). Check for **earth** on components **256, 268 and 173**.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET085 CONTINUED	

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

Front right-hand lights:
- Connection code **64D** between components **255 and 645**.
- Connection code **MAR** between component **1391 and earth MAR**.

Front left-hand lights:
- Connection code **64D** between components **256 and 645**.
- Connection code **MAS** between component **1391 and earth MAS**.

Right-hand repeater:
- Connection code **64D** between components **267 and 645**.
- Connection code **MAR** between component **1391 and earth MAR**.

Left-hand repeater:
- Connection code **64D** between components **268 and 645**.
- Connection code **MAN** between component **1391 and earth MAN**.

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 **supplies, earths** and connections are correct, replace the component concerned.

Check for **+ 12 V** on connection **LPD** of component **1391**.
Check for **earth** on connection **MAN** of component **1391**.

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

- Connection code **64F** between components **1391 and 645**.
- Connection code **64Q** between components **1391 and 645**.
- Connection code **MAN** between component **1391 and earth MAN**.
- Connection code **LPD** between components **1391 and 1016**.

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 **supply, earth** and connections are correct, replace the door **locking/warning switch (component code 1391**). (see **MR 411 Mechanical 84A, Control - Signals, Hazard warning lights and central door locking: Removal - Refitting**).

If the fault is still present, contact the Techline.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET087	ONE-TOUCH WINDOW CONTROL/SUNROOF AUTHORISATION.

NOTES	**There must be no present or stored faults.** **Check the following configuration:** – Check that **LC070 One-touch windows/SR* is With**. **Otherwise, perform CF173 One-touch windows/SR**. Authorisation by the UCH of the one-touch window winder and/or sunroof motor function is present under the following conditions: – **+ ACCESSORIES FEED,** – **+ AFTER IGNITION FEED,** – **when the engine is running.**

SPECIFICATIONS	**PRESENT** **ABSENT**

Check the condition and connection of the **PE2** 24-track UCH connector, (**component code 645)** (tabs bent, broken, oxidised).
Check the condition and connection of the driver's electric window motor 6-track connector **(component 203)** (tabs bent, broken, oxidised). If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.
If there is an electric sunroof, check that fuse **F26 (20 A)** is sound and correctly fitted in the passenger compartment fuse and relay box **(component code 1016)**.
Check the condition and connection of the connectors for component **1512**.
With an electric sunroof, check the condition and connection of 4-track connector **339** in the A-pillar and the sunroof computer **12-track** connector (tabs bent, broken, oxidised). 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	Repeat the conformity check from the start. Carry out fault finding on the system.

ET087 CONTINUED	

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

- Connection code **SPB3** between components **203 and 1016**.
- Connection code **BPT3** between components **203 and 645**.
- Connection code **21E** between components **1512 and 203**.
- Connection code **21C** between components **1512 and 203**.
- Connection code **22D** between components **1512 and 133**.
- Connection code **22C** between components **1512 and 133**.
- Connection code **MAM** between component **1512 and earth MAM**.
- Connection code **MAM** between component **203 and earth MAM**.

For vehicles fitted with a sunroof:

- Connection code **21K**, between components **1579 and 645**.
- Connection code **MAM** between component **1579 and earth MAM**.
- Connection code **BP93** between component **1579 and earth 1016**.

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	Repeat the conformity check from the start. Carry out fault finding on the system.

ET096	WIPER STALK INTERMITTENT SPEED RING POSITION

NOTES	**There must be no present or stored faults.** **Check the following configurations:** – **Check that LC094 Wiper intermittent speed ring** displays **With**. **If not, run CF191 Wiper intermittent speed ring.** – **Check that LC096 Automatic wiper function** displays **With**. **If not, run CF194 Automatic wiper function.** – **Check that LC095 Automatic headlight function** displays **"With"**. **If not, run CF193 Automatic headlight function.**

SPECIFICATIONS	**INACTIVE** **1** **2** **3** **4** **5**

Windscreen wiper fault:

Check the condition and connection of the 3-track **windscreen wiper motor connector (component code 212)** (tabs bent, broken, oxidised).
If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.

Check the presence and condition of fuse **F2 (15 A)** on the passenger compartment fuse and relay box **(component code 1016)**.
Replace the fuse if necessary.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET096 CONTINUED	

Check the condition and connection of the **PE1** 40-track UCH connector, (**component code 645**) (tabs bent, broken, oxidised).
If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.

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

Check the combined wiper-washer:

- Connection code **AP71** between components **145 and 1016**.
- Connection code **14E (windscreen wiper timed control)** between components **645 and 145**.
- Connection code **14G (low speed windscreen wiper control)** between components **645 and 145**.
- Connection code **14H (high speed windscreen wiper control)** between components **645 and 145**.
- Connection code **36E (rear screen wiper timed control)** between components **645 and 145**.
- Connection code **MAN or MAM** between component **145 and the earth MAN (left-hand drive) or MAM (right-hand drive)**.

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, replace the wiper stalk **(component code 145)**.
(see **MR 411, Mechanical, 85A, Washing - Wiping, Windscreen wiper blade: Removal - Refitting**).

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET097	REAR SCREEN WIPER PARK POSITION

NOTES	**There must be no present or stored faults.**

SPECIFICATIONS	**YES** **NO**

Check the presence and condition of fuse **F36 (15 A)** on the passenger compartment fuse and relay box **(component code 1016)**. Replace the fuse if necessary.
Check the condition and connection of the 3-track rear screen wiper motor connector (**component 211**) (tabs bent, broken, oxidised).
Activate the rear screen wiper with the switch stalk **(component code 209)** or with **AC007 "Rear screen wiper"**, check for **+ 12 V** on connection **36A** of the **rear screen wiper motor connector (component code 211)**.
Check that the **earth** on connection **MYH** of the **rear screen wiper motor connector (component code 211)** is in perfect condition. 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.
Check the condition and connection of the **PE1** 40-track UCH connector, (**component code 645**) (tabs bent, broken, oxidised). If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET097 CONTINUED	

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

Combined wiper-washer check:
- Connection code **AP71** between components **1016 and 145**.
- Connection code **36E (rear screen wiper timed control)** between components **645 and 145**.
- Connection code **MAN or MAM** between component **145 and the earth MAN (left-hand drive) or MAM (right-hand drive)**.

Rear screen wiper motor check:
- Connection code **36C** between components **211 and 645**.
- Connection code **36A** between components **211 and 1016**.
- Connection code **MYH** between component **211 and earth MYH**.

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 the fitting and supply of the **rear screen wiper motor, (component code 211)**.
Repair if necessary or replace the motor if it is faulty.

If the fault is still present, contact the Techline.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET109	REVERSE GEAR ENGAGED

NOTES	**There must be no present or stored faults.**

Check the presence and condition of fuse **F6 (15 A)** on the passenger compartment fuse and relay box **(component code 1016)**.
Replace the fuse if necessary.

Check the condition and connection of the 2-track connector on the switch connector **(component code 155)** of the reversing lights **(component code 155)** (tabs bent, broken, oxidised).

Check the condition and connection of the **PE1** 40-track UCH connector, (**component code 645)** (tabs bent, broken, oxidised).
If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.

Check for **+ 12 V** on connection **AP3** of the reversing lights switch connector.
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.

With the switch pressed, check the **continuity** between connections **AP3** and **H66P** of component **155**.
With the switch released, check the **insulation** between connections **AP3** and **H66P** of component **155**.
If these checks are not correct, replace the reverse gear switch **(component code 155)** if necessary.

If these checks are correct, check **the insulation, continuity and the absence of interference resistance** on the following connections:

- Connection code **AP3** between components **155 and 1016**.
- Connection code **HP66P** between components **155 and 172**.
- Connection code **HP66P** between components **155 and 173**.
- Connection code **HP66P** between components **1222 and 155**.
- Connection code **HP66P** between components **645 and 155**.

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 or replace it.

If the fault is still present, contact the Techline.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET111	FRONT FOG LIGHTS REQUEST

NOTES	**There must be no present or stored faults.** **Check that the LC015 Front fog lights** is definitely **With**. **Otherwise, use command CF021 Front fog lights.** Note: The signal can only be interpreted if the function is managed by the UCH **(component code 645)** (vehicle equipped with one-touch fog light control).

SPECIFICATIONS	**PRESENT** **ABSENT**

With automatic headlighting:

Use **AC008 Front fog lights** to check that the front fog lights operate correctly.
Check the presence and condition of fuses **F15 (5 A), F20 (15 A), F25 (5 A),** in the passenger compartment fuse and relay box **(component code 1016)**. Replace the fuse if necessary.
Check the correct positioning and condition of the bulb concerned. Replace the light if necessary.
Check the condition and connection of the front fog light concerned (bent, oxidised, broken tabs).
Check the condition and connection of the **PE2** connector of the UCH, **(component code 645)** (tabs bent, oxidised, broken).
Check the condition and connection of the control stalk connector **(component code 209)** (tabs bent, oxidised, broken). If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.
Check for **+ 12 V** (when there is a rear fog lights request) on connection **8B** of components **176** and **177**. Check for **earth** on connection **MAR** of component **176** and connection **MAS** of component **177**. 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.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET111 **CONTINUED 1**	

Front fog lights check:
Check **the insulation, continuity and the absence of interference resistance** of the following connections:

Right-hand light and front right-hand fog light relay:
- Connection code **8B**, between components **176 and 231**.

Front left-hand light and front left-hand fog light relay:
- Connection code **8B**, between components **177 and 231.**

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 for **+ 12 V** (when there is a front fog lights request) on connection **8M** of component **231**. Check for **+ 12 V** on connection **BP16** of component **231**.
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.

Front fog lights relay check:
Check **the insulation, continuity and the absence of interference resistance** of the following connections:

- Connection code **8M** between components **231** and **645**.
- Connection code **BP16** between components **231** and **1016**.

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.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET111 **CONTINUED 2**	

Control stalk check (component code 209):
Check **the insulation, continuity and the absence of interference resistance** of the following connections:

Check between the switch stalk (component code 209) and the UCH:
- Connection code **8H** between components **209** and **645**.

Check between the control stalk (component 209) and the passenger compartment fuse and relay box (component code 1016):
- Connection code **BPA2** between components **209** and **1016**.
- Connection code **BPA3** between components **209** and **1016**.
- Connection code **MAN** or **MAM** between component **209** and **earth MAN** or earth **MAM** (depending on the driving layout, right- or left-hand drive).

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 for **+ 12 V** on connections **BPA2** and **BPA3** of component **209**. Check for **earth** on connection **MAM** (for right-hand drive vehicles) or **MAN** (for left-hand drive vehicles) of component **209**.
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 **supplies** and connections of the control stalk **(component code 209**) are correct, replace the control stalk **(component code 209)**. (See **MR 411 Mechanical 84A, Control - Signals, Lighting - Signals switch: Removal - Refitting).**

If the fault is still present, contact the Techline.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET114 **ET115**	WIPER REQUEST BY RAIN SENSOR LIGHT ACTIVATION REQUEST BY LIGHT SENSOR

NOTES	**There must be no present or stored faults.** Make sure that the vehicle is fitted with the rain and light sensor. The status should change to **LOW SPEED** or **HIGH SPEED** if there is water on the windscreen where the sensor is positioned. The status should change to **PRESENT** when the light intensity requires the lights to be switched on with the engine running. Make sure that the other positions of the wiper control are working properly **Check the following configurations:** – **Check that LC008 Daytime running lights** is **"With"**. **Otherwise run CF014 Daytime running lights.** – **Check that LC044 Rain/light sensor** displays **"Present"**. **If not, run CF035 Rain/ light sensor.** – **Check that LC095 Automatic headlight function** displays **"With"**. **If not, run CF193 Automatic headlight function.** – **Check that LC096 Automatic wiper function** displays **With**. **If not, run CF194 Automatic wiper function.**

SPECIFICATIONS	**ET114: ABSENT/LOW SPEED/HIGH SPEED** **ET115: PRESENT/ABSENT**

Conditions: Check that the switch stalk **(component code 209)** is in the intermittent position so that automatic operation can be activated.
Check that the vehicle has a rain/light sensor **(component code 1415)**.
Check that the function is not deactivated, perform the following cycle twice to activate the automatic headlight function: Switch stalk **(component code 209)** OFF → Σωιτχη σταλκ (χομπονεντ χοδε 209) to side lights ON position.
Check the condition and connection of the 3-track connector of the rain/light sensor **(component 1415)** (tabs bent, broken or oxidised). If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.
Check for **+ 12 V** on **connection BPT** of component **1415**. Check for **earth** on **connection MAM** of component **1415**. 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.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET114 **ET115** **CONTINUED**	

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

- Connection code **BPT** between components **645 and 1415**.
- Connection code **MAM** between component **1415 and earth**.
- Connection code **14S** between components **645 and 1415**.

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 rain/light sensor **(component code 1415)** is correctly positioned and bonded (see **MR411, Mechanical systems, 85A Wiping - Washing, Rain and light sensor: Removal - Refitting**).

If the fault is still present, replace the rain/light sensor **(component code 1415)**. (See **MR 411 Mechanical 85A, Wiping - Washing, Rain and light sensor: Removal - Refitting**).

If the fault is still present, contact the Techline.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET142	ENGINE OPERATING PHASE

NOTES	**There must be no present or stored faults.**

SPECIFICATIONS	**STOPPED** **STARTING** **RUNNING** **STALLED**

Run a multiplex network test (see **88B, Multiplexing**).
Carry out fault finding on the **injection system** (see **13B, Diesel injection or 17B, Petrol injection**).
If the fault is still present, contact the Techline.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET181	KEY ALLOCATED TO THE VEHICLE

NOTES	**There must be no present or stored faults.** **Apply the checks only if** the status is **NO with the** ignition on**.**

SPECIFICATIONS	**YES** **NO**

Check that **ET185 "Key code received"** is **"YES"**. If it is **"NO"**, run fault finding on this status.
Switch the ignition off and then on again. If the status remains **NO**, run command **SC018 Key check**.
If the fault is still present, replace the defective key(s) and allocate the keys using command **SC015 Key allocation**.
If the fault is still present, contact the Techline.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET185	KEY CODE RECEIVED

NOTES	**There must be no present or stored faults.** **Apply the checks only if the** status is **NO** with the ignition on.

SPECIFICATIONS	**YES** **NO**

Check that there are no powerful electromagnetic wave sources (CB (Citizen Band), mobile phone in close proximity to the transponder ring). Switch the ignition off and then on again.
Check that fuse **F8 (15 A)** is sound and correctly fitted in the passenger compartment fuse and relay box. Replace the fuse if necessary.
Try the vehicle's second key. If the status changes to **YES**, replace the first key and program the keys using command **SC015 Key allocation**.
This status tells you whether the UCH has received the immobiliser code from the key. If the status remains **NO**, check the connection between the transponder ring **(component code 1618)** and the UCH (**component code 645**).
Check the **+ 12 V** feed on connection **AP43** of component **1618**. 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.
Check that the **earth** on track 2 of the transponder ring is in perfect condition.
Check **the insulation, the continuity and the absence of interference resistance** on the following connections: ● Connection code **AP43** between components **1016** and **1618**. ● Connection code **80X** between components **645** and **1618**. ● Connection code **80Y** between components **645** and **1618**. ● Connection code **NAM** between component **1618 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	Repeat the conformity check from the start. Carry out fault finding on the system.

ET186 **ET189**	SHORT PRESS ON DOOR CLOSING BUTTON DOOR OPENING BUTTON PRESSED

NOTES	**There must be no present or stored faults.** **Check that LC097 Key type** is definitely **RF***. **Otherwise run CF195 Key type and select RF*.** Check the operation of statuses **ET045 R.F.* signal received and ET193 RF* signal from a key allocated to the vehicle**. Note: **The key must not be in the ignition switch.** **Signal can be interpreted if the ignition is switched off (key removed from the ignition switch).**

SPECIFICATIONS	**ACTIVE** **INACTIVE**

Check the condition of the key battery and of the button contacts. Replace the battery if necessary.
Try the vehicle's second key. If the status changes to **Active**, replace the first key and allocate the keys using command **SC015 Key allocation**.
If the fault is still present, contact the Techline.

* RF: radio frequency

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET193	RF SIGNAL FOR A KEY ALLOCATED TO THE VEHICLE

NOTES	**There must be no present or stored faults.** First check the operation of statuses **ET045 RF* signal received and ET181 Key allocated to the vehicle**.

SPECIFICATIONS	**PRESENT** **ABSENT**

If statuses **ET045 RF* signal received** and **ET181 Key allocated to the vehicle** are correct, contact Techline.

* RF: radio frequency

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET229	INJECTION IMMOBILISER CODE

NOTES	**There must be no present or stored faults.** **Only apply the checks if the status is NOT PROGRAMMED** or **NOT DETERMINED** after activating the + After ignition feed for **20 seconds**; switch off the ignition, wait for the end of Powerlatch (**20 minutes** maximum), and then switch on the ignition again.

SPECIFICATIONS	**UNDETERMINED** **NOT PROGRAMMED** **PROGRAMMED**

STATUS NOT PROGRAMMED	Run command **SC017 Program injection immobiliser code**.

STATUS UNDETERMINED	Switch the ignition off and then on again.
	First check whether statuses **ET046 Immobliser, ET181 Key allocated to the vehicle** and **ET239 Position of the ignition switch** are correct.
	Carry out a multiplex network test (see **88B, Multiplexing**).
	Carry out fault finding on the **injection system** (see **13B, Diesel injection or 17B, Petrol injection**).
	Check the condition of the injection computer connectors.
	Check that the **+ 12 V** supply and injection computer earth **(component code 120)** are in order.
	If the fault is still present, contact the Techline.

* Powerlatch: Time required for injection computer supply after **+ 12 V** after ignition feed cut-off.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET239	IGNITION SWITCH POSITION

NOTES	**There must be no present or stored faults.**

SPECIFICATIONS	**+ APC** **+ START** **+ ACCESSORIES FEED**

Check the correct position and condition of fuses **F2 (60A)** in the engine fuse and relay box **(component code 597)** and **F8 (15A)** in the passenger compartment fuse and relay box **(component code 1016)**.
Replace the fuse if necessary.

Check the condition and connection of the starter switch connector **(component code 104)** (tabs bent, broken, oxidised).

Check the condition and connection of the **PE1** connector of the UCH, **(component code 645)** (tabs bent, oxidised, broken).
If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.

Check for **+12 V** on connection **AP29** of component **232**.

Check **the insulation, continuity and the absence of interference resistance** on the connections between the UCH **(component code 645)** and the **ignition switch (component 104)**:

- Connection code **A** between components **104 and 1016**.
- Connection code **BP12** between components **104 and 597**.
- Connection code **AP43** between components **1016 and 645**.
- Connection code **D** between components **104 and 232**.
- Connection code **1B** between components **232 and 645**.
- Connection code **AP29** between components **1016 and 232**.

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 connections are in order, replace the ignition switch **(component code 104)**.
(See **MR 411 Mechanical 82A, Immobiliser, Ignition switch: Removal - Refitting**).

If the fault is still present, contact the Techline.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET240	KEY FREQUENCY (IN MHZ)

NOTES	**There must be no present or stored faults.**

SPECIFICATIONS	**433** **NONE**

NONE	The vehicle must not be equipped with a locking/unlocking button.
	Check that **LC097 Key type** is definitely **"Standard"**. **Otherwise run CF195 Key type** and select **"Standard"**.

WITH	The vehicle must be equipped with a locking/unlocking button.
	Check that **LC097 Key type** is definitely **RF*, otherwise run CF195 Key type** and select **RF***.
	Check the operation of statuses **ET045 R.F.* signal received" and ET193 RF* signal from a key allocated to the vehicle**.
	If the door locking/unlocking by radio frequency key does not operate, replace the key and run command **SC015 Key allocation**.
	If the fault is still present, contact the Techline.

* RF: radio frequency

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET250	INJECTION

NOTES	**There must be no present or stored faults.** Switch on the + after ignition feed for **20 seconds**, switch off the ignition, wait until the end of Powerlatch* (**20 minutes** maximum), then switch on the ignition again. Check that the immobiliser warning light remains lit.

SPECIFICATIONS	**NOT PROTECTED** **PROTECTED**

After the setpoint has been obtained, if the status remains **PROTECTED**, first check that statuses **ET046 Engine immobiliser, ET181 Key allocated to vehicle and ET229 Injection immobiliser code** are operating correctly.
Carry out a multiplex network test (see **88B, Multiplexing**).
Carry out fault finding on the injection system (see **13B, Diesel injection or 17B, Petrol injection**).
If the fault is still present, contact the Techline.

*Powerlatch: Time required for injection computer supply after **+ 12 V** after ignition feed cut-off to the ignition switch.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET463	DOOR(S) OR TAILGATE

NOTES	**There must be no present or stored faults.** **Status ET463 must be "Open" when at least one of the doors or tailgate is open and must be "Closed" when all of the doors and tailgate are closed.** Note: **The tailgate lock (electric central door locking) must only be used to open the luggage compartment and not to close it.**

SPECIFICATIONS	**OPEN** **CLOSED**

With deadlocking:

Check the following configurations:
- **Check that LC097 Key type** is definitely **RF depending on the vehicle equipment level. Otherwise run CF195 Key type.**
- **Check that LC003 Deadlocking** is definitely **With**. **Otherwise, run CF009 Deadlocking.**
- **Check that LC040 Locking when driving** is definitely **With. Otherwise, run CF108 Locking when driving.**
- **Check that LC093 Central door locking** is definitely **With**. **Otherwise run CF192 Central door locking.**

Check the presence and condition of the fuse **F14 (20 A)** (for vehicles equipped with deadlocking) in the passenger compartment fuse box and relay, **(component code 1016)**.
Replace the fuse if necessary.

Check the condition and connection of connectors **PE1, PE2** and **PE3** of the UCH **(component code 645)** (tabs bent, oxidised, broken).

Check the condition and connection of the electric central door locking connectors for the driver **(component code 140)** and passenger's doors **(component code 141)** and the tailgate **(component code 1322)** (tabs bent, broken, oxidised).
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.

Door locks:
Check for **+ 12 V** on connection **BP3** of component **1042**.
Check for **+ 12 V** on connection **86H** of component **140 or 141**.
Check for **earth** on connection **MAM** of component **1042**.
Check for **earth** on connection **MAN** of component **140 or 141**.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET463 **CONTINUED 1**	

Tailgate locks:
Check for **+ 12 V** on connection **86H** (when there is an opening request) of component **1322**. Check for **earth** on connection **MYH** on component **1322**.

Electric central door locking, tailgate lock and central door locking relay check:
Check **the insulation, continuity and the absence of interference resistance** of the following connections:
Door locks:

- Connection code **20C** between components **140 or 141** and **645**.
- Connection code **20D** between components **140 or 141** and **645**.
- Connection code **20AP** between components **140 or 141** and **1016**.
- Connection code **MAN (right-hand drive) or MAM (left-hand drive)** between component **140** and **earth MAN (right hand drive) or MAM (left-hand drive)**.
- Connection code **MAN (left-hand drive) or MAM (right-hand drive)** between component **141** and **earth MAN (left-hand drive) or MAM (right-hand drive)**.

Tailgate lock:

- Connection code **20S** between components **1322 or 645**.
- Connection code **86H** between components **1322 or 645**.
- Connection code **MYH** between component **1322** and **earth MYH**.

For manual gearbox:

- Connection code **86H** between components **140 or 141 and 645**.

For sequential gearbox:

- Connection code **H24** between components **140 and 645**.

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 **supplies** and connections of the electric central door and tailgate locking are correct, check the central door locking relay.

Check **the insulation** of the contact of component **140** between connections **86H** and **MAM** (door closed).
Check **the continuity** of the contact of component **140** between connections **86H** and **MAM** (door open).
Check **the insulation** of the contact of component **141** between connections **86H** and **MAM** (door closed).
Check the **continuity** of the contact of component **141** between connections **86H** and **MAM** (door open).

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 **supply**, connections and **earth** of the central door locking relay are correct, replace the relay.

If the **supplies**, central door locking connections, locking relay and electric central door locking relay are correct, replace the lock concerned.

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET463 CONTINUED 2	

Check **the insulation, continuity and the absence of interference resistance** of the following connections:
Central door locking/warning switch check **(component code 1391)**:

- Connection code **20AW** between components **645** and **1391.**
- Connection code **20M** between components **645** and **1391**.

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 connections are correct, replace the central door locking/warning switch **(component code 1391)**.
(See **MR 411 Mechanical 84A, Control - Signals, Hazard warning lights and central door locking: Removal - Refitting**).

Special feature: Depending on the vehicle equipment, an additional fuse and diode are present on the wiring:

With the engine running, check that the door open warning (buzzer) is active when the driver door is open and the lights are on.

Is the warning active?

YES → B

NO

Check the continuity of connection H24 between components 140 and 1016 and between components 119 and 1016.

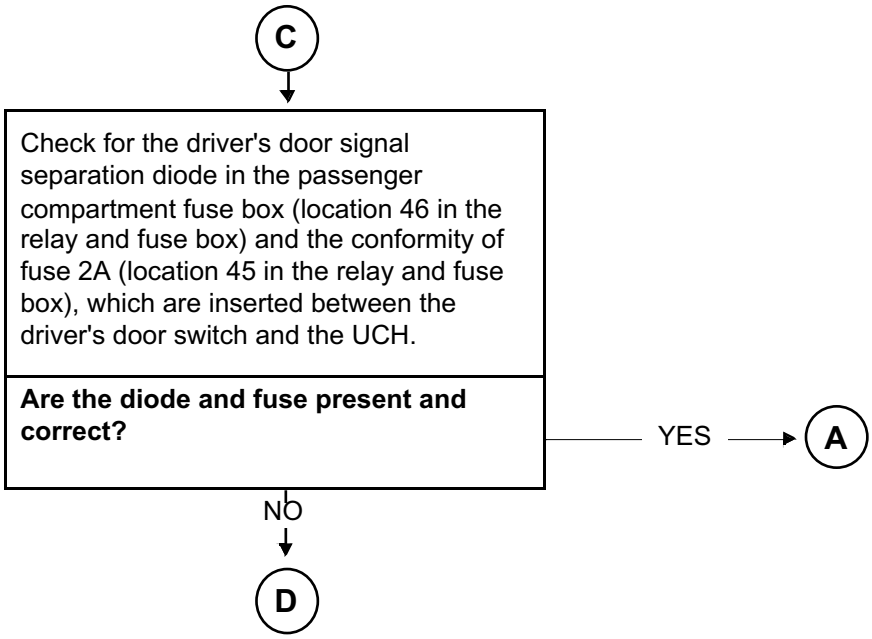
Is the continuity correct?

NO

C

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET463 CONTINUED 3	



AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

ET463 CONTINUED 4	

(A)

Check that the diode is fitted the right way round (in accordance with the foolproofing device).

Is the diode fitted the wrong way round?

YES → Fit a diode the right way round in the correct location in the passenger compartment fuse box.

(see **MR 411 Mechanical, 81C, Fuses, Fuses: List and location of components**)

NO → (B)

(D)

A disconnected earth causes damage to the fuse. If the diode and/or the fuse are damaged, the tailgate earth (MYH) and the passenger door earth (MAN and MAM) should be checked.

If the earths are correct, replace the diode and/or the fuse in the passenger compartment fuse box (see **MR 411 Mechanical, 81C, Fuses, Fuses: List and location of components**)

(B)

Check the continuity of connection **86H** between components **1016** and **645**.

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

If the wiring is in order, replace the driver's door switch (**component code 140**) (see **MR 411 Mechanical systems, 81B, Interior lights, Door switch: Removal - Refitting**)

AFTER REPAIR	Repeat the conformity check from the start. Carry out fault finding on the system.

Tool parameter	Diagnostic tool title
PR002	External temperature
PR056	Number of keys allocated
PR073	Alternator charge signal
PR074	Battery setpoint voltage
PR075	Alternator setpoint voltage
PR076	Battery voltage after rest

PR002	EXTERNAL TEMPERATURE

NOTES	Only apply the checks if the parameter is inconsistent. **Special notes:** Check that **LC002 "External temperature sensor"** is **"WITH". Otherwise perform CF029 "External temperature sensor".** **Check that LC067 "External temperature display"** is **"WITH"**. **Otherwise perform CF171 "External temperature display".**

Note:
If the exterior temperature sensor **(component code 245)** is disconnected or the vehicle is not equipped with an exterior temperature sensor, the temperature displayed is the default temperature of **215 ˚C**.

Check the 12-track temperature sensor connector, **(component code 245)** (tabs bent, oxidised, broken, etc.).

Check the **PE2** 40-track connector of the UCH, **component code 645** (tabs bent, oxidised, broken).
If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.

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

- Connection code **47D** between components **240** (for left-hand drive vehicles) or **239** (for right-hand drive vehicles) **and 645**.
- Connection code **47C** between components **240** (for left-hand drive vehicles) or **239** (for right-hand drive vehicles) **and 645**.

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.

Measure the resistance of the connector sensor disconnected from connections **47C and 47D**.

Temperature (˚**C**)	Sensor resistance (Ω) ± **50** Ω
1	5980
5	5020
10	4280
15	3530
20	2900
25	2300
30	2010
35	1620

Replace the exterior temperature sensor **(component code 245)** if not correct. **(See MR 411 mechanical systems 62A, air conditioning, Exterior air temperature sensor: Removal - Refitting).**

If the fault is still present, contact Techline.

PR056	NUMBER OF KEYS ALLOCATED

NOTES	**No faults should be present or stored.**

This parameter indicates the number of key(s) programmed by the UCH.
0 < PR056 < 4
If **PR056 "Number of keys allocated" = 0**, no key is allocated by the UCH. Perform key allocation using command **SC015 "Key allocation"**.
If the fault is still present, contact Techline.

AFTER REPAIR	Repeat the conformity check from the start.

PR073	ALTERNATOR CHARGE SIGNAL

NOTES	**No faults should be present or stored.** Note: **In the event of a malfunction, the value will by 99.6% (engine running).**

Depending on the battery charge status, the operating phase and the battery temperature, the UCH determines what the voltage across the battery terminals should be.
When the battery charge drops, and **PR076 Battery voltage after rest** decreases, the UCH can temporarily increase the **PR075 Alternator setpoint voltage** by **1 V** and for a period of **15 minutes** after switching on **+ after ignition feed**.
Before and during starting, **PR075 Alternator setpoint voltage** is fixed at **10.7 V**.
A maximum of **30 seconds** after the engine has started, the UCH sets **PR075 Alternator setpoint voltage** to the optimum value calculated.
The injection computer can also control the **alternator (component code 103)** regulation voltage.
The injection computer sends the maximum authorised power delivered by the engine, to the UCH via the multiplex network.
If the power available by the engine is less than the power consumed by the **alternator (component code 103)**, the UCH reduces **PR075 Alternator setpoint voltage**.

0 % **< PR073 < 100** %

In the event of a fault, carry out a complete check on the battery and the charging circuit (see **Technical Note 16A, Starting-Charging**).

If the fault is still present, contact Techline.

AFTER REPAIR	Repeat the conformity check from the start.

PR074	BATTERY SETPOINT VOLTAGE

NOTES	**No faults should be present or stored.**

Depending on the battery charge status, the operating phase and the battery temperature, the UCH determines what the voltage across the battery terminals should be.
When the battery charge drops, and **PR076 Battery voltage after rest** decreases, the UCH can temporarily increase the **PR075 Alternator setpoint voltage** by **1 V** and for a period of **15 minutes** after switching on **+ after ignition feed**.
Before and during starting, **PR075 Alternator setpoint voltage** is fixed at **10.7 V**.
A maximum of **30 seconds** after the engine has started, the UCH sets **PR075 Alternator setpoint voltage** to the optimum value calculated.
The injection computer can also control the **alternator (component code 103)** regulation voltage.
The injection computer sends the maximum authorised power delivered by the engine, to the UCH via the multiplex network.
If the power available by the engine is less than the power consumed by the **alternator (component code 103)**, the UCH reduces **PR075 Alternator setpoint voltage**.

In the event of a fault, perform a complete check on the battery and charging circuit (see **80A, Battery**).

If the fault is still present, contact Techline.

AFTER REPAIR	Repeat the conformity check from the start.

PR075	ALTERNATOR SETPOINT VOLTAGE

NOTES	**No faults should be present or stored.**

Depending on the battery charge status, the operating phase and the battery temperature, the UCH determines what the voltage across the battery terminals should be.
When the battery charge drops, and **PR076 Battery voltage after rest** decreases, the UCH can temporarily increase the **PR075 Alternator setpoint voltage** by **1 V** and for a period of **15 minutes** after switching on **+ after ignition feed**.
Before and during starting, **PR075 Alternator setpoint voltage** is fixed at **10.7 V**.
A maximum of **30 seconds** after the engine has started, the UCH sets **PR075 Alternator setpoint voltage** to the optimum value calculated.
The injection computer can also control the **alternator (component code 103)** regulation voltage.
The injection computer sends the maximum authorised power delivered by the engine, to the UCH via the multiplex network.
If the power available by the engine is less than the power consumed by the alternator, the UCH reduces **PR075 Alternator setpoint voltage**.

In the event of a fault, perform a complete check on the battery and charging circuit (see **80A, Battery**).

If the fault is still present, contact Techline.

AFTER REPAIR	Repeat the conformity check from the start.

PR076	BATTERY VOLTAGE AFTER REST

NOTES	**No faults should be present or stored.**

The battery voltage after rest represents the battery charge status.
9 V < PR076 < 14 V
In the event of a fault, perform a complete check on the battery and charging circuit (see **80A, Battery**).
If the fault is still present, contact Techline.

AFTER REPAIR	Repeat the conformity check from the start.

Clearing		
RZ001	Fault memory	This command is used to clear certain present and stored faults in the UCH.

Settings		
VP004	Enter VIN	This command permits manual entry of the vehicle's VIN into the computer. Use this command each time the computer is replaced. The vehicle identification number is indicated on the oval plate on the right-hand side door pillar. **Procedure for writing the VIN** – establish dialogue with the UCH, – select the **repair mode** menu, – select the **other settings** menu, – select line **VP004 Write VIN**, – enter the vehicle identification number 2 times, – read the VIN again from the **Identification** menu to check that it conforms with **ID019 "VIN code"**.

Activation		
AC004	Central door locking	Refer to **the interpretation of commands**
AC005	Central door unlocking	Refer to **the interpretation of commands**
AC007	Rear screen wiper	Refer to **the interpretation of commands**
AC056	Low-speed wiper	Refer to **the interpretation of commands**
AC057	High-speed wiper	Refer to **the interpretation of commands**
AC058	Intermittent wiper request	Refer to **the interpretation of commands**
AC060	Rear screen de-icer	Refer to **the interpretation of commands**
AC061	Tailgate opening	Refer to **the interpretation of commands**
AC110	Temperature display	Refer to **the interpretation of commands**

AC004 **AC005**	CENTRAL LOCKING CENTRAL DOOR UNLOCKING

NOTES	**Special notes:** If the opening element motors are supplied too quickly and it is too difficult to test using a multimeter, the measurements must be made using an oscilloscope.
	No faults should be present or stored.

IMPORTANT
The door motors can perform 15 successive activations; beyond this there is a risk of the motors overheating and being damaged.

NOTES	**No faults should be present or stored.** **Status ET463 "Door(s) or tailgate" must be "Open" when at least one of the doors or tailgate is open and must be "Closed" when all of the doors and tailgate are closed.** Note: **The tailgate lock (electric central door locking) must only be used to open the luggage compartment and not to close it.**

Check that fuses **F14 (20 A)** are sound and correctly fitted in the passenger compartment fuse and relay box (for vehicles equipped with deadlocking function) **(component code 1016)**.
Replace the fuse if necessary.

Check the condition and connection of the **PE1, PE2** and **PE3** connectors of the UCH **(component code 645)** (tabs pushed back, oxidised, broken).

Check the condition and connection of the connectors of the electric locks of the driver's door **(component code 140)**, passenger door **(component code 141)** and the tailgate **(component code 1322)** (tabs pushed back, oxidised, broken).
If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.

AFTER REPAIR	Carry out another fault finding check on the system.

AC004 **AC005** **CONTINUED 1**	

When unlocking, check the signal status on component **140 or 141** of the following connections using an oscilloscope (refer to **test1 "Central door locking"**).
Passenger door locks **(component code 141)** or driver door locks **(component code 140)** :
Oscilloscope red test pin on connection **20D** of component **140 or 141** Oscilloscope black test pin on connection **20C** of component **140 or 141**
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.

When deadlocking, check the signal status on component **140 or 141** of the following connections using an oscilloscope (refer to **test1 "Central door locking"**).
Passenger door locks **(component code 141)** or driver door locks **(component code 140)** :
Oscilloscope red test pin on connection **20AP** of component **140 or 141** Oscilloscope black test pin on connection **20C** of component **140 or 141**
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.

When unlocking, check the signal status on component **140 or 141** of the following connections using an oscilloscope (refer to **test2 "Central door unlocking"**).
Passenger door locks **(component code 141)** or driver door locks **(component code 140)** :
Oscilloscope red test pin on connection **20D** of component **140 or 141** Oscilloscope black test pin on connection **20C** of component **140 or 141**
Oscilloscope red test pin on connection **20S** of component **1322 or 645** Oscilloscope black test pin on connection **MYH** of component **1322 and the 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.

AFTER REPAIR	Carry out another fault finding check on the system.

AC004 **AC005** **CONTINUED 2**	

Checking the electric central door locking, tailgate lock and central door locking relay (component code 1322):
Check **the insulation, continuity and the absence of interference resistance** on the following connections:
Door locks:

- Connection code **20C** between components **140 or 141** and **645**.
- Connection code **20D** between components **140 or 141** and **645**.
- Connection code **20AP** between components **140 or 141** and **1042** (if deadlocking).
- Connection code **MAN (right-hand motor) or MAM (left-hand motor)** between component **140 or 141** and the **earth MAN (right-hand motor) or MAM (left-hand motor)**.

Tailgate lock check:

- Connection code **20S** between components **1322 or 645**.
- Connection code **86H** between components **1322 or 645**.
- Connection code **MYH** between component **1322** and **earth MYH**.

For manual gearbox:

- Connection code **86H** between components **140 or 141 and 1016**.

For sequential gearbox:

- Connection code **H24** between components **140 and 1016**.

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.

Vehicle which is equipped with deadlocking function:

If the **supplies** and connections of the electric central door and tailgate locking are correct, check the central door locking relay **(Component code 1042)**.

Check **the insulation, continuity and the absence of interference resistance** on the following connections:
Central door locking relay check:

- Connection code **BP3** between components **1042** and **1016**.
- Connection code **MAM** between component **1042** and **earth MAM**.
- Connection code **20AP** between components **1042** and **645**.

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 **supply,** connections and **earth** of the central door locking relay are correct, replace the relay.

If the **feeds**, the electric door locking connections, the locking relay **(Connection code 1042)** and the electric central door locking are correct, check the door lock switch / hazard warning light switch **(component code 1391)**.

AFTER REPAIR	Carry out another fault finding check on the system.

AC004 **AC005** **CONTINUED 3**	

Check **the insulation, continuity and the absence of interference resistance** on the following connections:
Central door locking/warning switch check:

- Connection code **20AW** between components **645** and **1391**.
- Connection code **20M** between components **645** and **1391**.

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 connections are correct, replace the central door locking/hazard warning lights switch **(Component code 1391)**. (See **MR 411 mechanical systems 84A, Controls - Signals, Hazard warning lights and central door locking: Removal - Refitting**).

If the fault is still present, replace the door lock affected (passenger door lock **(component code 141)** or passenger door lock **(component code 140)**).

AFTER REPAIR	Carry out another fault finding check on the system.

AC007	REAR SCREEN WIPER

NOTES	**No faults should be present or stored.** Check that **LC096 "Automatic wiper function"** displays **"With"**. **If not, carry out CF194 "Automatic wiper function".** **Check that LC094 "Windscreen wiper intermittent speed ring"** is **"With", otherwise carry out CF191 "Windscreen wiper intermittent speed ring"**.

Check that fuse **F36 (15 A)** is sound and correctly fitted to the passenger compartment fuse and relay box **(component code 1016)**. Replace the fuse if necessary.
Check the condition and connection of the 3-track rear screen wiper motor connector **(component code 211)** (broken, bent, oxidised tabs).
Activate the rear screen wiper, check for **+ 12 V** on connection **36A** of the rear screen wiper motor connector **(component code 211)**.
Check that the **earth** on connection **MYH** of the **rear screen wiper motor connector (component code 211)** is in perfect condition.
Check the condition and connection of the UCH 40-track connector **PE1 (component code 645)** (tabs bent, oxidised or broken). If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.

AFTER REPAIR	Carry out another fault finding check on the system.

AC007 CONTINUED 1	

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

Combined wiper-washer check:
- Connection code **AP71** between components **145 and 1016**.
- Connection code **36E (rear screen wiper timed control)** between components **645 and 145**.
- Connection code **MAN or MAN** between component **145 and the earth MAN (left-hand drive) or MAM (right-hand drive)**.

Rear screen wiper motor check:
- Connection code **36C** between components **211 and 645**.
- Connection code **36A** between components **211 and 1016**.
- Connection code **MYH** between component **211 and earth MYH**.

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 the fitting and activate the supply to the rear screen wiper motor **(component code 211)**.
Repair if necessary or replace the motor **(component code 211)** if it is faulty.

If the fault is still present, contact Techline.

AFTER REPAIR	Carry out another fault finding check on the system.

AC056 **AC057** **AC058**	LOW-SPEED WIPER HIGH SPEED WIPER INTERMITTENT WIPER REQUEST

NOTES	**No faults should be present or stored.** Check that **LC094 "Wiper intermittent speed ring"** displays **"With"**. **If not, carry out CF191 "Wiper intermittent speed ring".** Check that **LC096 "Automatic wiper function"** displays **"With"**. **If not, carry out CF194 "Automatic wiper function".** Check that **LC044 "Rain/light sensor"** displays **"Present"**. **If not, carry out CF035 "Rain/light sensor".** Check that **LC095 "Automatic headlight function"** displays **"With"**. **If not, carry out CF193 "Automatic headlight function".**

This fault may appear if the windscreen wiper motor is forced (e.g.: used on a dry screen, snow on the screen, etc.).
Check that fuse **F2 (15 A)** is sound and correctly fitted to the passenger compartment fuse and relay box **(component code 1016)**. Replace the fuse if necessary.
Check the condition and connection of the 3-track windscreen wiper motor connector **(component code 212)** (broken, bent, oxidised tabs).
Check the condition and connection of the 40 track connectors **PE1 and PE3** of the UCH **(component code 645)** (tabs broken, bent or oxidised).
Check that the **earth** on connection **MAS** of the **windscreen wiper motor connector (component code 212)** is correct.
Activate the low speed, check for **+ 12 V** on connection **14B** of the **windscreen wiper motor connector (component code 212)**. Activate the high speed, check for **+ 12 V** on connection **14A** of the **windscreen wiper motor connector (component code 212)**. 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.

AFTER REPAIR	Carry out another fault finding check on the system.

AC056 **AC057** **AC058** **CONTINUED**	

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

Combined wiper-washer check:
- Connection code **AP71** between components **145 and 1016**.
- Connection code **14E (windscreen wiper timed control)** between components **645 and 145**.
- Connection code **14G (low speed windscreen wiper control)** between components **645 and 145**.
- Connection code **14H (high speed windscreen wiper control)** between components **645 and 145**.
- Connection code **MAN or MAN** between component **145 and the earth MAN (left-hand drive) or MAM (right-hand drive)**.

Windscreen wiper motor check:
Left-hand drive:
- Connection code **14A** between components **212 and 645**.
- Connection code **14B** between components **212 and 645**.
- Connection code **14C** between components **212 and 645**.
- Connection code **MAS** between component **212 and earth MAS**.

Right-hand drive:
- Connection code **14A** between components **211 and 645**.
- Connection code **14B** between components **211 and 645**.
- Connection code **36C** between components **211 and 645**.
- Connection code **MAS** between component **211 and earth MAS**.

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 the fitting of the windscreen wiper motor **(component code 212)**.
Repair if necessary or replace the windscreen wiper motor **(component code 212)** if the **connections**, the **feeds** and the **earth** are correct. (see **MR 411, mechanical systems, 85A, Washing - wiping, Windscreen wiper motor: Removal - Refitting**)

If the fault is still present, contact Techline.

AFTER REPAIR	Carry out another fault finding check on the system.

AC060	HEATED REAR SCREEN

NOTES	**No faults should be present or stored.** Check that the interpretation of **ET028 "Heated rear screen button"** has been applied.

Check that fuses **F29 (15A)** and **F42 (10 A)** are sound and correctly fitted in the passenger compartment fuse and relay box **(component code 1016)**. Replace the fuse(s) if necessary.
Check the **air conditioning control panel black 9-track connector, (component code 319)** (bent, oxidised or broken tabs). If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.
Check for the **earth** on connection **MYH** of the connector of component **200**.
Run command **AC060 "Rear screen de-icer"** and check for **+ 12 V** on connection **15LP** of the connector of component **200**. 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.
Check the **insulation, continuity and absence of interference resistance** of the following connections: ● Connection code **15LP** between components **645 and 200**. ● Connection code **MYH** between **earth MYH and component 200**. 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 supplies, earth and connections are correct, replace the heated rear screen **(component code 200)**.
If the fault is still present, contact Techline.

AFTER REPAIR	Carry out another fault finding check on the system.

AC061	TAILGATE OPENING

NOTES	**Special notes:** If the opening element motors are supplied too quickly and it is too difficult to test using a multimeter, the measurements must be made using an oscilloscope.
	No faults should be present or stored. Check that the interpretation of **ET463 "Door(s) or tailgate"** has been applied.

Check the condition and connection of the tailgate lock connector **(component code 1322)** (tabs bent, oxidised, broken, etc.). If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.
Check the condition and connection of the **PE1** connector of the UCH, **(component code 645)** (tabs bent, broken, etc.).
Check that the **earth** on connection **MYH** of the tailgate switch **(component code 560)** and the tailgate lock **(component code 1322)** is in perfect condition. If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.
When unlocking, check the signal status on component **1322,** of the following connections using an oscilloscope (refer to **test1 "Central door locking"**).
Tailgate lock:
Oscilloscope red test pin on connection **20S** of component **1322**. Oscilloscope black test pin on connection **MYH** of component **1322**.
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.

AFTER REPAIR	Carry out another fault finding check on the system.

AC061 CONTINUED	

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

Tailgate lock check:
- Connection code **20S** between components **1322 and 645**.
- Connection code **86H** between components **1322 and 645**.

With electric central door locking:
- Connection code **20G** between components **560 and 645**.
- Connection code **MYH** between component **560 and earth MHY.**

Without electric central door locking:
- Connection code **20G** between components **1733 and 645**.
- Connection code **20BW** between components **1733 and 560**.
- Connection code **MYH** between component **560 and earth MHY.**

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:
The **insulation** of the lock contact **(component code 1322)** between connections **86H** and **MHY** (tailgate closed)
The **continuity** of the lock contact **(component code 1322)** between connections **86H** and **MHY** (tailgate open)
Replace the lock if not correct **(component code 1322)**.

If the fault is still present, contact Techline.

AFTER REPAIR	Carry out another fault finding check on the system.

AC110	TEMPERATURE DISPLAY

NOTES	**Special notes:** Check that the vehicle is equipped with an external temperature sensor.

IMPORTANT
This command lasts approximately **30 seconds**.
It makes it possible to check the connection between the display **(component code 653)** and the UCH **(component code 645)**.
With the command running, the temperature display should change; if not apply the fault finding procedure below.

Read configuration **LC002 External temperature sensor**.

Is the configuration **"With"**?

NO → If the vehicle is fitted with an external temperature sensor, check that the configuration **CF029 "External temperature sensor"** displays **"With"**.
If the vehicle is not fitted with an external temperature sensor, it is normal that the external temperature is not displayed.

YES ↓

Check that **LC067 "External temperature display"** is **"WITH"**. Otherwise perform **CF171 "Temperature display"**.

Check the condition and connection of the **PE2** 40-track UCH connector, **(component code 645)** (tabs bent, broken, etc.).
If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.

Check the continuity of the following connection:
Connection code **47Z** between components **645** and **653**.
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.

If the connection is correct, replace the display **(component code 653)** (see **MR 86A, Radio, Display: Removal - Refitting**).

If the fault is still present, contact Techline.

AFTER REPAIR	Carry out another fault finding check on the system.

NOTES	**Special notes:** This summary corresponds to the complete list of customer complaints for a UCH. These customer complaints are divided by function in the section corresponding to the function concerned.

WIPERS	**85A**
NO REAR SCREEN WIPING	**ALP 13**
THE REAR SCREEN WIPER BLADE STOPS IN AN INCORRECT POSITION	**ALP 14**
NO WINDSCREEN WIPER FUNCTION WHEN THE STALK IS MANIPULATED	**ALP 15**
THE WINDSCREEN WIPER BLADES STOP IN AN INCORRECT POSITION	**ALP 16**
NO FRONT AND REAR SCREEN WASHER	**ALP 17**
NO WIPING WHEN IT RAINS	**ALP 18**
NO CHANGE IN WIPING SPEED AFTER ACTIVATING THE WIPER INTERMITTENT SPEED RING	**ALP 19**
ACCESS/SAFETY	**82D**
RF* CONTROL LOCKING/UNLOCKING FAULT FAULT	**ALP 20**
TAILGATE OPENING PROBLEM	**ALP 21**
CENTRAL LOCKING/UNLOCKING FAULT ON ONE OR MORE DOOR(S)	**ALP 22**
RENAULT ANTI-INTRUDER DEVICE FUNCTION FAULT	**ALP 23**
OPENING FROM THE INSIDE NOT POSSIBLE	**ALP 24**
PROTECTION - STARTING	**82D**
STARTING PROTECTION (VEHICLE DOES NOT START WHEN IGNITION KEY TURNED)	**ALP 25**

*RF: radio frequency

ENERGY MANAGEMENT	**87B**
NO + ACCESSORIES FEED	**ALP 26**
NO + AFTER IGNITION FEED ACTIVATION OR + AFTER IGNITION FEED REMAINS JAMMED	**ALP 27**
BATTERY WARNING LIGHT COMES ON	**ALP 28**
STARTER NOISY	**ALP 29**
LOW LIGHT INTENSITY	**ALP 30**
SUNROOF	**87B**
THE SUNROOF DOES NOT WORK	**ALP 31**
MEMORY KEY	**87B**
NO INFORMATION IN THE KEY	**FAULT FINDING CHART 32**
EXTERNAL TEMPERATURE DISPLAY	**87B**
NO EXTERNAL TEMPERATURE DISPLAY	**ALP 33**

ALP 1	No dialogue with the computer

NOTES	Check the condition and connection of the battery connections (see **80A Battery**). Check the condition of the fuses. Check the battery voltage (see **80A Battery**). Repair if necessary (see **MR 411 Mechanical 80A Battery**). Switch on the + after ignition feed. Connect the **diagnostic tool** and perform the required operations.

Connect the diagnostic tool to another vehicle to check that it establishes dialogue correctly with the vehicle. If dialogue is established correctly. Check the multiplex network of the faulty vehicle (see 88B Multiplexing).
Check the connection between the **diagnostic tool** and the diagnostic socket (connection and cable in good condition), the computer supplies and the engine and passenger compartment fuses. 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 the presence and condition of fuse **F11 (20 A)** on the passenger compartment fuse and relay box **(component code 1016)**. Replace the fuse if necessary.
Check the condition and connection of the connector of component **225** (tabs bent, oxidised or broken).
Check for **+ 12 V battery feed** on connection **BP19** of component **225**. Check for **earth** on connection **MAM** (for right-hand drive vehicles) or **MAN** (for left-hand drive vehicles) of component **225**. Check for **+ after ignition feed** on connections **AP43, BP15, BPT, BP6, BP13, BP19, SP2, SP15** of component **645**. Check for **+ 12 V** accessories feed on connections **SP2 and SP15** of component **645**. 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.

AFTER REPAIR	Carry out a complete check using **the diagnostic tool**.

ALP 1 CONTINUED	

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

UCH check:

Connection code **BP15** between components **645** and **1033**.
Connection code **BP6** between components **645** and **1033**.
Connection code **BP3** between components **645** and **1033**.
Connection code **AP43** between components **645** and **1033**.
Connection code **SP2** between components **645** and **1016**.
Connection code **SP15** between components **645** and **1016**.
Connection code **MAN** or **MAM** between component **645** and the **earth MAN (left-hand drive)** or **MAM** (right-hand drive).

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 or replace it.

Diagnostic socket check:

Connection code **BP19** between components **225** and **1016**.
Connection code **133B** between components **225** and **645**.
Connection code **133C** between components **225** and **645**.
Connection code **MAN** or **MAM** between component **225** and the **earth MAN (left-hand drive)** or **MAM** (right-hand drive).

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 using **the diagnostic tool**.

ALP 26	Accessories feed not activated

NOTES	Check the battery voltage (see **80A Battery**). Start the fault finding procedure with the ignition off and the vehicle locked. When the vehicle is unlocked, the instrument panel should light up for a moment. Otherwise, carry out fault finding on the multiplex network (see **88B, Multiplexing**). Check the operation of status **ET239 "Ignition switch position"**.

Check the presence and condition of fuses **F27 (5 A),** depending on the equipment, and **F29 (15 A)** on the passenger compartment fuse and relay box **(component code 1016)**. Replace the fuse if necessary.
Check the condition and connection of the connectors of components **645** and **1016** (tabs bent, oxidised or broken).
Check for **+ accessories feed** on connection **SP2** (for vehicles fitted with a manual gearbox) or **SP15** (for vehicles fitted with a sequential gearbox) of component **645**. Check for **earth** on connection **NAM** of component **645**. Check for **earth** on the connection **MAM** (for right-hand drive vehicles) or **MAN** (for left-hand drive vehicles) of component **645**. 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 **the insulation, continuity and the absence of interference resistance** of the following connections: Connection code **SP2** between components **645** and **1016**. Connection code **SP15** between components **645** and **1016**. Connection code **MAN** or **MAM** between component **645** and **earth MAN** or **MAM** (depending on the driving layout; right-hand or left-hand drive). 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 using **the diagnostic tool**.

ALP 27	No + after ignition feed activation or the + after ignition feed stays jammed

NOTES	Check the battery voltage (see **80A Battery**). Check for faults using **the diagnostic tool**. Deal with the other faults first. The + accessories feed activation function should be working; if not deal with **ALP 26 Accessories feed not activated** first. Make sure that status **ET239 Ignition switch position** is working.

Make sure that status **ET239 Ignition switch position**
is workingApply the interpretation of the status if necessary.

↓

Run a multiplex network test **(see 88B, Multiplexing)**.

↓

See 13B, Diesel injection or see 17B, Petrol injection.

AFTER REPAIR	Carry out a complete check using **the diagnostic tool**.

ALP 28	Illumination of the "battery charge" warning light

NOTES	Check the battery voltage (see **80A Battery**). Check for faults using **the diagnostic tool**. Deal with the other faults first.

Check with **LC023 Engine type** that the engine type configured matches the vehicle. Otherwise perform **CF028 Engine type** to modify the configuration.

IMPORTANT
The battery warning light can flash if a low battery charge is detected (no-load voltage less than **12.2 V**: voltage measured during technical use) for the first 12 miles (20 km), then the warning light stops flashing. Also, the magic eye of the battery (the hydrometer) is black.
If a vehicle has been driven less than **12 miles (20 km)**, the battery warning light is flashing and the battery magic eye (the hydrometer) is black, apply the following procedure:
- Recharge the battery for at least 6 hours. The battery must be disconnected (reconnection must be done to torque).

Note:
The battery must be recharged using a specific charger, which is listed in the "Garage Equipment" catalogue.
- After 6 hours, if the magic eye has not turned green, the battery must be replaced.

If the configuration is correct (see **80A Battery**).

If the fault is still present, contact the Techline.

AFTER REPAIR	Carry out a complete check using **the diagnostic tool**.

ALP 29	**Starter noisy**

NOTES	**Special notes:** Check for faults using **the diagnostic tool**. Deal with the other faults first.
	Use the Wiring Diagrams Technical Note for New Twingo.

Check with **LC023 Engine type** that the engine type configured matches the vehicle. **Otherwise perform CF028 Engine type** to modify the configuration.
If the configuration is correct (see **16A Starting - Charging**).
If the fault is still present, contact the Techline.

AFTER REPAIR	Carry out a complete check using **the diagnostic tool**.

ALP 30	Low light intensity

NOTES	Check the battery voltage (see **80A Battery**). Check for faults using **the diagnostic tool**. Deal with the other faults first.

With the engine running at idle speed, run command **AC130 Alternator regulation.**
- Wait **20 seconds**.
- For **10 seconds** the voltage of the **alternator (component code 103)** should be equal to **15 V ± 0.2 V**, when using a multimeter to measure on connection **BPDA** between components **103 and 645**.

↓

- Wait **20 seconds**.
- For **10 seconds** the voltage of the **alternator (component code 103**) must be equal to **13 V ± 0.2 V** when measuring between the alternator terminal **(component code103)** and the **earth** on connection **2N** using a multimeter.

↓

If the values measured are not correct, check the starting - charging circuit (see **16A Starting - Charging**) and check the battery (see **80A, Battery**).

If the fault is still present, contact the Techline.

AFTER REPAIR	Carry out a complete check using **the diagnostic tool**.

ALP 31	**The sunroof does not work**

NOTES	Only consult this customer complaint after a **complete check** using the **diagnostic tool** and after having applied the interpretation of **DF065 Electric window authorisation connection**.

Check that nothing is obstructing the operation of the sunroof. Repair if necessary.
Check the condition of fuses **F26 (20 A) and F31 (30 A)** in the passenger compartment fuse and relay box **(component code 1016)**. Replace the fuse if necessary.
For vehicles equipped with a sunroof, check that the **LC070 One-touch windows/SR*** is **With**. **Otherwise, perform CF173 One-touch windows/SR***. **If CF173 One-touch windows/SR* is With, (see MR 411 Mechanical, 87D Electric windows - Sunroof).**

* SR.: Sunroof

AFTER REPAIR	Carry out a complete check using **the diagnostic tool**.

ALP 32	No information in the key

NOTES	Only address this customer complaint after a **complete check** with **the diagnostic tool**.

Read configuration **LC089 Memory key function**.

Is the configuration **YES**?

NO → The vehicle is not equipped with the **memory key** function.
It is normal for the key not to contain any information about the vehicle.

YES

Is status **ET407 YES**?
Status accessible in **SC018 Key test**.

NO → The key does not have the **memory key** function.
It is normal for the key not to contain any information about the vehicle.
If necessary, replace this key with a memory key.

YES

Replace the key.

AFTER REPAIR	Carry out a complete check using **the diagnostic tool**.

ALP 33	No external temperature display

NOTES	Only address this customer complaint after a **complete check** with **the diagnostic tool**. Check that the temperature display works, use **AC110 Temperature display**.

Read configuration **LC002 External temperature sensor**.

Is the configuration **YES**?

NO → The vehicle is not equipped with the **External temperature sensor** function. It is normal for the external temperature not to be displayed.

YES ↓

Check that **LC067 Temperature display** is **With**. Otherwise perform **CF171 Temperature display**.

Check the condition and connection of the **PE2** 40-track connector in the UCH **(component code 645)** (tabs bent, broken, etc.).
If the connector is faulty and there is a repair method (see **Technical Note 6015A, Repairing electrical wiring, Wiring: Precautions for repair**), repair the wiring, otherwise replace the wiring.

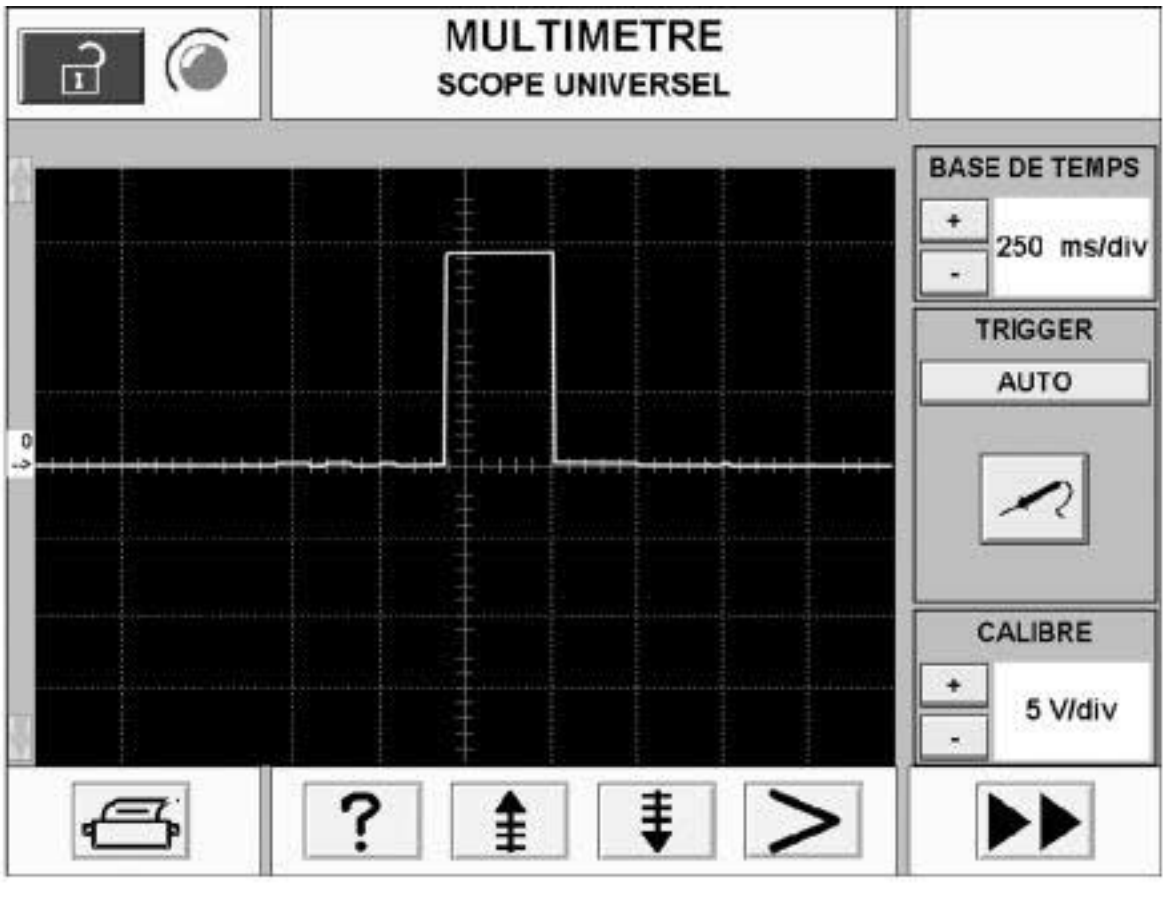
Check the continuity of the following connection:
Connection code **47Z** between components **645** and **653**.
If the connection is faulty and there is a repair procedure (see **Technical Note 6015A, Electrical wiring repair, Wiring: Precautions for repair**), repair the wiring, otherwise replace it.

If the connection is correct, replace the display. (See **MR 411 Mechanical, 86A, Radio, Display: Removal - Refitting**).

If the fault is still present, contact the Techline.

LOCK DOORS AND BOOT	→ TEST 1
UNLOCK DOORS AND BOOT	→ TEST 2

TEST 1	Central door locking



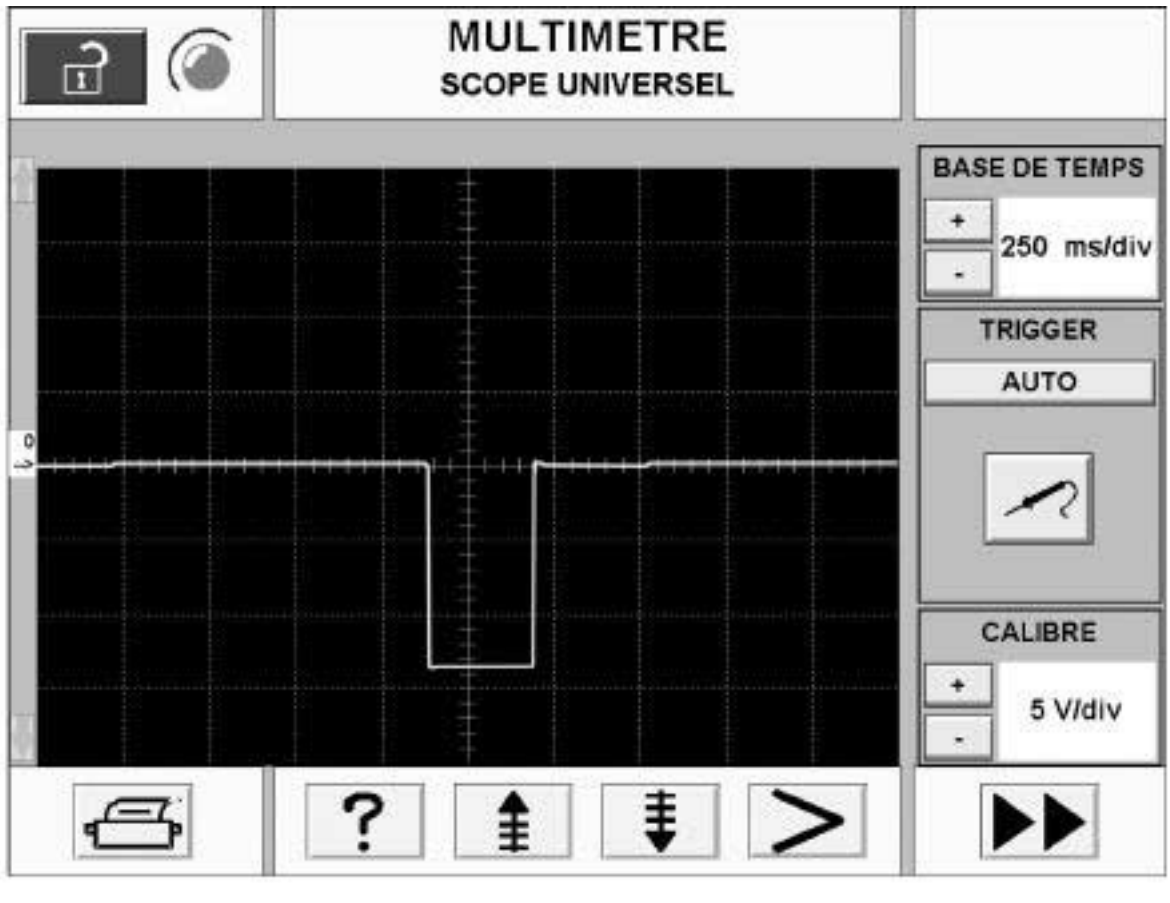
IMPORTANT

The signal frequency occurs every **250 ms**.
To check a measurement, repeat the locking or activation request several times.

Recommended scale:

- Time base ⇒ 250 μσ/διϖ
- Range ⇒ 5 ς/διϖ

TEST 2	Unlock doors and boot



IMPORTANT

The signal frequency occurs every **250 ms**.
To check a measurement, repeat the locking or activation request several times.

Recommended scale:

- Time base ⇒ 250 μσ/διϖ
- Range ⇒ 5 ς/διϖ