



N.T. 3531A

XBOX

**FAULT FINDING
MULTI-TIMER UNIT**

This Technical Note cancels and replaces section 87 and pages 88-21 to 88-31 of the Fault Finding Section of MR 337.

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EDITION ANGLAISE

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Contents

Page

87 ELECTRONIC ASSISTANCE EQUIPMENT

Multi-timer unit

Introduction	87-1
Fault interpretation	87-4
Conformity check	87-15
Status interpretation	87-20
Customer complaints	87-35
Fault finding chart	87-36

FAULT FINDING - INTRODUCTION

This document presents the fault finding procedure which applies to the multi-timer unit immobiliser system fitted to Clio 2.

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

- Workshop Repair Manual (MR 337).
- Wiring diagram of the function for the vehicle concerned.
- CLIP or NXR diagnostic tool,

GENERAL APPROACH TO FAULT FINDING

- Use of one of the diagnostic tools to identify the system fitted to the vehicle (type of computer, software number, Calibration number, Parts Store part number).
- Locating the Fault finding documents which relate to the system identified.
- Consideration of information contained in the introductory sections.

DESCRIPTION OF THE FAULT FINDING STAGES**1 - CHECKING THE FAULTS**

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

- Read the faults stored in the computer memory and use the Fault interpretation section of the documents.
Reminder: Each fault is interpreted for a particular type of storage (fault present, fault stored in memory, fault present or stored). The checks defined for handling each fault are therefore only to be performed if the fault shown by the diagnostic tool is interpreted in the document for its type of storage. The type of storage should be considered when connecting the diagnostic tool after switching the ignition off and back on again.
If a fault is interpreted when it is declared as stored, the conditions for applying the fault finding procedure appear in the NOTES box. When these conditions are not satisfied, use the fault finding procedure to check the circuit of the faulty part since the fault is no longer present on the vehicle. Follow the same procedure when a fault is declared stored by the diagnostic tool but is only interpreted in the documentation for a present fault.

2 - CONFORMITY CHECK

The conformity check is designed to check the statuses and parameters which do not display any faults on the diagnostic tool when they are outside the permitted tolerance values. This stage:

- diagnoses faults that are not displayed which may correspond to a customer complaint.
 - checks the correct operation of the immobiliser system and ensures that faults do not reappear after repair.
- This chapter gives the fault finding procedures for statuses and parameters and the conditions for checking them. If a status is not operating normally or a parameter is outside permitted tolerance values, you should consult the relevant fault finding page.

3 - RECTIFYING THE CUSTOMER COMPLAINT

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

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

- no fault is shown on the diagnostic tool.
- no faults are detected during the conformity check.
- the immobiliser system is not operating correctly.

FAULT FINDING - INTRODUCTION**DESCRIPTION OF THE VARIOUS MULTI-TIMER FUNCTIONS:**

Multi-timer units have a different number of functions depending on the vehicle's equipment level.

MULTI-TIMER UNIT N1 FUNCTIONS

Turn signals

Hazard warning lights

Steady intermittent windscreen wiping

Steady intermittent rear screen wiping

Interior light without timer

Diagnostic lines K, L

Lights on reminder buzzer

Transponder

Rear screen wiper park position

Windscreen wiper park position

MULTI-TIMER UNIT N2 FUNCTIONS

Function N1+

Infrared and radio frequency remote control

Timed interior light (1 bulb)

Variable intermittent windscreen wiping

After ignition relay

CAR Function (Automatic Door Locking when driving)

Impact function (automatic unlocking of the doors in an accident)

MULTI-TIMER UNIT N3 FUNCTIONS

Function N2+

One-touch driver's electric window

Automatic clutch buzzer

Doors open warning light

Intermittent rear screen wiping starts when reverse gear is engaged

MULTI-TIMER UNIT N4 FUNCTIONS

Function N3+

Daytime running lights

Headlight washers

Timed interior lights (3 bulbs)

Timed footwell lights (2 bulbs)

FAULT FINDING - INTRODUCTION**MULTI-TIMER UNIT RELAYS:**

The multi-timer unit is installed with a different number of relays depending on the versions and options.

		E1	E2	E2 + E/W	E3	E5	Cold Climate
Relay C	Turn signals/Hazard warning lights	X	X	X	X	X	X
Relay K	Windscreen wiper	X	X	X	X	X	X
Relay L	Rear screen wiper	X	X	X	X	X	X
Relay M	Radio frequency remote control feedback flash		X	X	X	X	X
Relay N	Door locking		X	X	X	X	X
Relay P	Door unlocking		X	X	X	X	X
Relay Q	+ After ignition			X	X	X	X
Relay D	One-touch driver's electric window up				X	X	X
Relay E	One-touch driver's electric window down				X	X	X
Relay G	Side lights (daytime running lights)						X
Relay H	Dipped beam headlights (daytime running lights)						X

FAULT FINDING - FAULT INTERPRETATION

DF003 PRESENT OR STORED	<u>DOOR LOCKING CIRCUIT</u>
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NOTES	Processing priority in the event of a combination of faults: – If it is present or stored, deal with the DF025 relay fault first.
	Conditions for applying the fault finding procedure to the fault stored: – The fault is declared present after the ignition has been switched on.

Disconnect the yellow connector from the multi-timer unit and check the **insulation, continuity and absence of interference resistance** of the connection between:

multi-timer unit yellow connector **track 7** —————▶ **track 2** of the door locking button connector

Repair if necessary.

Disconnect the connector from the door locking button and check for the presence of **earth on track 4** and **+12 volts before ignition on track 2**.

If +12 volts before ignition is present on track 2, change the door locking button.

If +12 volts before ignition is absent from track 2, change the multi-timer unit.

AFTER REPAIR	Clear the fault memory. Deal with any other possible faults.
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FAULT FINDING - FAULT INTERPRETATION

DF009 PRESENT OR STORED	<u>IMPACT SIGNAL CONNECTION</u>
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NOTES	Conditions for applying the fault finding procedure to the fault stored: – The fault is declared present after switching on the ignition and a 10 second delay.
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Disconnect the yellow connector from the multi-timer unit and check the **insulation, continuity and absence of interference resistance** of the connection between:

multi-timer unit yellow connector **track 8** → air bag computer connector (see wiring diagram)

Repair if necessary.

AFTER REPAIR	Clear the fault memory. Deal with any other possible faults.
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FAULT FINDING - FAULT INTERPRETATION

DF025 PRESENT OR STORED	<u>RELAY</u>
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NOTES	Conditions for applying the fault finding procedure to the fault stored: – The fault is declared present after the ignition has been switched on.
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Check the correct operation of each multi-timer unit relay by selecting the **command mode** menu, then **actuator** and selecting the actuator for the component which is to be tested (the relay for the component being tested should be heard clicking).
Replace the faulty relay(s).

ACTUATOR	RELAY TESTED
Opening movement	Electric door unlocking relay (relay P)
Closing movement	Electric door locking relay (relay N)
Dipped headlights (only for vehicles fitted with daytime running lights)	Dipped headlights relay (relay H)
Side lights (only for vehicles fitted with daytime running lights)	Side lights relay (relay G)
Turn signal lights	Flasher unit (relay C)
Electric window down (only for vehicles fitted with driver's one-touch electric window)	One-touch driver's electric window down relay (relay E)
Electric window up (only for vehicles fitted with driver's one-touch electric window)	One-touch driver's electric window up relay (relay D)
Windscreen wiper	Windscreen wiper relay (relay K)
Rear screen wiper	Rear screen wiper relay (relay L)
+12 volts after ignition relay	After ignition relay (relay Q)
Hazard warning lights	Flasher unit (relay C)

N.B. for the **front fog lights relay** and the **heated rear screen relay**, check the resistance of the relay coil with a multimeter.

Resistance of the coil between **track 86** and **track 85** of the relay = $63 \pm 5 \Omega$.

AFTER REPAIR	Clear the fault memory. Deal with any other possible faults.
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FAULT FINDING - FAULT INTERPRETATION

DF026 PRESENT OR STORED	<u>DOOR UNLOCKING CIRCUIT</u>
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NOTES	Processing priority in the event of a combination of faults: – If it is present or stored, deal with the DF025 relay fault first.
	Conditions for applying the fault finding procedure to the fault stored: – The fault is declared present after the ignition has been switched on.

Disconnect the yellow connector from the multi-timer unit and check the **insulation, continuity and absence of interference resistance** of the connection between:
 multi-timer unit yellow connector **track 22** —————▶ **track 6** of the door locking button connector
 Repair if necessary.

Disconnect the connector from the door locking button and check for the presence of **earth on track 4** and **+12 volts before ignition on track 6**.
If +12 volts before ignition is present on track 6, change the door unlocking button.
If +12 volts before ignition is absent from track 6, change the multi-timer unit.

AFTER REPAIR	Clear the fault memory. Deal with any other possible faults.
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FAULT FINDING - FAULT INTERPRETATION

DF057 PRESENT OR STORED	<u>OIL PRESSURE SENSOR CIRCUIT</u>
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NOTES	<p>Conditions for applying the fault finding procedure to the fault stored:</p> <p>– The fault is declared present after the ignition has been switched on.</p>
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Disconnect the connector from the oil pressure switch.
 Check **track 1** of the oil pressure switch compared with the **engine earth**.
 When the ignition is switched on (without starting the engine): **R = 0 ohm**.
 Engine running: **R = infinity**.
 Change the oil pressure switch if necessary.

Disconnect the yellow connector from the multi-timer unit and check the **insulation, continuity and absence of interference resistance** of the connection between:
 multi-timer unit yellow connector **track 20** —————▶ **track 1** of the oil pressure switch connector
 Repair if necessary.

Disconnect the 30-track grey connector from the instrument panel and check the **insulation, continuity and absence of interference resistance** of the connection between:
 instrument panel grey connector **track 18** —————▶ **track 1** of the oil pressure switch connector
 Repair if necessary.

Disconnect the connector from the oil pressure switch, switch on the ignition and check for the presence of **+12 volts** on **track 1**.
If +12 volts is not present on track 1 of the oil pressure switch connector (see instrument panel fault finding).

If the fault persists, change the multi-timer unit.

AFTER REPAIR	<p>Clear the fault memory. Deal with any other possible faults.</p>
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FAULT FINDING - FAULT INTERPRETATION

DF127 PRESENT OR STORED	<u>COMPUTER</u>
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NOTES	None.
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The computer fault indicates an internal memory fault. Try to **erase the fault**, by switching off the ignition and then switching on again.

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

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

Multi-timer unit black connector **track B1** \longrightarrow **+ before ignition**

Multi-timer unit black connector **track A1** \longrightarrow **earth**

Multi-timer unit yellow connector **track 6** \longrightarrow **+ after ignition**

Repair if necessary.

If the above checks have not made it possible to clear the fault, **replace** the multi-timer unit.

AFTER REPAIR	Clear the fault memory. Deal with any other possible faults.
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FAULT FINDING - FAULT INTERPRETATION

DF178 PRESENT OR STORED	<u>REAR SCREEN WASHER SWITCH CIRCUIT</u>
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NOTES	<p>Processing priority in the event of a combination of faults:</p> <ul style="list-style-type: none"> – If it is present or stored, deal with the DF025 relay fault first.
	<p>Conditions for applying the fault finding procedure to the fault stored:</p> <ul style="list-style-type: none"> – The fault is declared present after the ignition has been switched on.

Disconnect the connector from the wiper switch, switch on the ignition and check for the presence of **earth** on **track B5** and **+12 volts** on **track B4**.

If +12 volts is absent from track B4, check fuse **F3 (15A)**.

Repair if necessary.

With the ignition switched on, check for the presence of **+12 volts on track B1 of the wiper switch** when the rear screen washer is activated.

Change the wiper switch if 12 volts is not being applied.

Disconnect the yellow connector from the multi-timer unit and check the **insulation, continuity and absence of interference resistance** of the connection between:

multi-timer unit yellow connector **track 16** —————▶ **track B1** of the wiper switch connector

Repair if necessary.

Disconnect the connector from the screen washer pump and check the **insulation, continuity and absence of interference resistance** of the connections between:

Screen washer pump connector **track 1** —————▶ **track B1** of the wiper switch connector

Screen washer pump connector **track 2** —————▶ **track A4** of the wiper switch connector

Repair if necessary.

Check the operation of the screen washer pump by connecting it directly to **+12 volts** on **track 1** and **earth** on **track 2**.

Replace the pump if necessary.

If the fault persists, change the multi-timer unit.

AFTER REPAIR	<p>Clear the fault memory. Deal with any other possible faults.</p>
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FAULT FINDING - FAULT INTERPRETATION

DF179	<u>DRIVER'S ELECTRIC WINDOW CONTROL RELAY CIRCUIT</u>
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NOTES	<p>Processing priority in the event of a combination of faults:</p> <ul style="list-style-type: none"> – If it is present or stored, deal with the DF025 relay fault first.
	<p>Conditions for applying the fault finding procedure to the fault stored:</p> <ul style="list-style-type: none"> – The fault is declared present after the ignition has been switched on.

Disconnect the one-touch driver's electric window relays (relays D and E) from the multi-timer unit and check the resistance of the relays between **tracks 86 or 1** and **tracks 85 or 2**.

Relay coils resistance: $88 \pm 5 \Omega$.

Replace the relays if necessary.

With the driver's electric window relay disconnected, check for the presence of **+12 volts before ignition on track 1 or 86** in the relay position on the multi-timer unit (tracks not marked on the multi-timer unit so refer to the relay tracks when carrying out the check).

If +12 volts before ignition is absent from track 1 or 86, change the multi-timer unit.

Disconnect the black 6-track connector from the multi-timer unit and check the **insulation, continuity and absence of interference resistance** of the connection between:

multi-timer unit black connector **track B3** \longrightarrow vehicle earth

Repair if necessary.

AFTER REPAIR	<p>Clear the fault memory. Deal with any other possible faults.</p>
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FAULT FINDING - FAULT INTERPRETATION

DF180 PRESENT OR STORED	<u>ELECTRIC WINDOW DOWN SWITCH CIRCUIT</u>
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NOTES	Processing priority in the event of a combination of faults: – If it is present or stored, deal with the DF025 relay fault first.
	Conditions for applying the fault finding procedure to the fault stored: – The fault is declared present after the ignition has been switched on.

Disconnect the blue connector from the multi-timer unit and check the **insulation, continuity and absence of interference resistance** of the connection between:

multi-timer unit blue connector **track 2** —————▶ **track 6** of the driver's electric window switch connector

Repair if necessary.

Disconnect the connector from the driver's electric window switch and check for the presence of **+12 volts before ignition on track 6**.

If +12 volts is present on track 6, change the driver's electric window switch.

If +12 volts is absent from track 6, change the multi-timer unit.

AFTER REPAIR	Clear the fault memory. Deal with any other possible faults.
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FAULT FINDING - FAULT INTERPRETATION

DF181 PRESENT OR STORED	<u>WINDSCREEN WASHER SWITCH CIRCUIT</u>
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NOTES	<p>Processing priority in the event of a combination of faults:</p> <ul style="list-style-type: none"> – If it is present or stored, deal with the DF025 relay fault first.
	<p>Conditions for applying the fault finding procedure to the fault stored:</p> <ul style="list-style-type: none"> – The fault is declared present after the ignition has been switched on.

Disconnect the connector from the wiper switch, switch on the ignition and check for the presence of earth on **track B5** and **+12 volts** on **track A7**.

If +12 volts is absent from track A7, check fuse **F4 (15A)**.

Repair if necessary.

With the ignition switched on, check for the presence of **+12 volts** on **track A4** of the wiper switch when the windscreen washer is activated.

Change the wiper switch if 12 volts is not being applied.

Disconnect the yellow connector from the multi-timer unit and check the **insulation, continuity and absence of interference resistance** of the connection between:

Multi-timer unit yellow connector **track 3** —————▶ **track A4** of the wiper switch connector

Repair if necessary.

Disconnect the connector from the screen washer pump and check the **insulation, continuity and absence of interference resistance** of the connections between:

screen washer pump connector **track 1** —————▶ **track B1** of the wiper switch connector

screen washer pump connector **track 2** —————▶ **track A4** of the wiper switch connector

Repair if necessary.

Check the operation of the screen washer pump by connecting it directly to **+12 volts** on **track 2** and **earth** on **track 1**.

Replace the pump if necessary.

If the fault persists, change the multi-timer unit.

AFTER REPAIR	<p>Clear the fault memory. Deal with any other possible faults.</p>
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FAULT FINDING - FAULT INTERPRETATION

DF182 PRESENT OR STORED	<u>ELECTRIC WINDOW UP SWITCH CIRCUIT</u>
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NOTES	Processing priority in the event of a combination of faults: – If it is present or stored, deal with the DF025 relay fault first.
	Conditions for applying the fault finding procedure to the fault stored: – The fault is declared present after the ignition has been switched on.

Disconnect the blue connector from the multi-timer unit and check the **insulation, continuity and absence of interference resistance** of the connection between:

multi-timer unit blue connector **track 1** —————▶ **track 2** of the driver's electric window switch connector

Repair if necessary.

Disconnect the connector from the driver's electric window switch and check for the presence of **+12 volts before ignition on track 2**.

If +12 volts is present on track 2, change the driver's electric window switch.

If +12 volts is absent from track 2, change the multi-timer unit.

AFTER REPAIR	Clear the fault memory. Deal with any other possible faults.
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FAULT FINDING - CONFORMITY CHECK

NOTES

Only carry out this conformity check after a full check with the diagnostic tool (**there must be no faults present**). The values indicated in this check are only given as examples.

Conditions for carrying out this check: **engine stopped, ignition on.**

Order	Function	Parameter or status check or action	Display and notes	Fault finding
1	Feed	ET002: + 12 volts after ignition	ACTIVE	<p>In the event of a problem: consult the fault finding procedure for status ET002</p> <p>If there is a problem: carry out fault finding on the charging circuit.</p> <p style="text-align: center;">None.</p>
		PR002 Battery voltage	10 v < x < 12.5 v	
		ET001: + 12 accessories (depending on version)	Yes	
2	Lighting	ET020: Side light control	ACTIVE when side lights are switched on	if INACTIVE: consult the fault finding procedure for status ET020
		ET021: Reversing lights switch	ACTIVE when reverse gear is engaged.	if INACTIVE: consult the fault finding procedure for status ET021.
		ET022: Hazard warning lights switch	ACTIVE when hazard lights are switched on.	if INACTIVE: consult the fault finding procedure for status ET022.
		ET023: Dipped headlights control	ACTIVE when dipped headlights are switched on.	if INACTIVE: consult the fault finding procedure for status ET023.
		ET024: Main beam headlights switch	ACTIVE when main beam headlights are switched on	if INACTIVE: consult the fault finding procedure for status ET024.
		ET025: Turn signals switch	ACTIVE when turn signal lights are switched on.	if INACTIVE: consult the fault finding procedure for status ET025.
3	Wipers	ET032: Windscreen washer switch	ACTIVE when windscreen washer is switched on.	<p>In the event of a problem, follow the fault finding procedure for windscreen washer circuit faults (DF181).</p> <p>if INACTIVE: consult the fault finding procedure for status ET035.</p> <p>if INACTIVE: consult the fault finding procedure for status ET005.</p>
		ET035: Windscreen wiper timer	ACTIVE with windscreen wiper switch in intermittent position.	
		ET005: Windscreen wiper park position	ACTIVE with windscreen wiper switch in intermittent position during each pause of the windscreen wipers.	

FAULT FINDING - CONFORMITY CHECK

NOTES

Only carry out this conformity check after a full check with the diagnostic tool (**there must be no faults present**). The values indicated in this check are only given as examples.
Conditions for carrying out this check: **engine stopped, ignition on.**

Order	Function	Parameter or status check or action	Display and notes	Fault finding
3	Wipers (continued)	ET031: Rear screen washer switch	ACTIVE when rear screen washer is activated.	In the event of a problem , follow the fault finding procedure for rear screen washer circuit faults (DF004).
		ET036: Rear screen wiper timer	ACTIVE when rear screen washer is activated.	if INACTIVE : consult the fault finding procedure for status ET031 .
		ET006: Rear screen wiper park position	ACTIVE with wiper switch in intermittent position during each pause of the wiper.	if INACTIVE : consult the fault finding procedure for status ET006 .
4	Opening elements	ET061: Radio frequency transmission signal: Signal received	YES when the vehicle is locked or unlocked using the remote control.	In the event of a problem : consult the fault finding procedure for status ET061 .
		ET062: Radio frequency transmission signal: Signal correct	ACTIVE when the vehicle is locked or unlocked using the remote control.	if INACTIVE : consult the fault finding procedure for status ET062 .
		ET012: Source of last opening elements activation	Radio frequency transmission when locking with the radio frequency remote control. Locking of the doors when locking using the central door locks switch.	Radio frequency transmission or electric locking of the doors according to the last opening or closing command.
		ET105: Last opening elements activation	OPEN CLOSE	None.
		ET038: Electric door locks locking/unlocking	ACTIVE when the doors are locked or unlocked with the electric door locking button.	Changes to ACTIVE status when the electric door locking button is pressed for three seconds.

FAULT FINDING - CONFORMITY CHECK

NOTES

Only carry out this conformity check after a full check with the diagnostic tool (**there must be no faults present**). The values indicated in this check are only given as examples.

Conditions for carrying out this check: **engine stopped, ignition on.**

Order	Function	Parameter or status check or action	Display and notes	Fault finding
4	Opening elements (continued)	ET208: Motor actions	ACTIVE status lasts three seconds after an open or close command, then changes back to INACTIVE .	None.
5	Switch	ET033: Electric window up button	ACTIVE when the electric window up button is pressed.	In the event of a problem, follow the fault finding procedure for electric window up switch circuit faults (DF182).
		ET034: Electric window down button	ACTIVE when the electric window down button is pressed.	In the event of a problem, follow the fault finding procedure for electric window down switch circuit faults (DF180).
		ET205: Doors open switch	ACTIVE when one of the doors is opened.	if INACTIVE: consult the fault finding procedure for status ET205 .
		ET003: Oil pressure	INACTIVE	None.
6	Radio frequency remote control programming	ET106: Infrared/radio frequency remote control programming or resynchronisation	INACTIVE	ACTIVE when programming or resynchronisation is being carried out.
		ET011: Infrared/radio frequency remote control key programming carried out	ACTIVE	If the status is INACTIVE , the remote controls must be programmed (see programming procedure)

FAULT FINDING - CONFORMITY CHECK

NOTES

Only carry out this conformity check after a full check with the diagnostic tool (**there must be no faults present**). The values indicated in this check are only given as examples.

Conditions for carrying out this check: **engine stopped, ignition on.**

Order	Function	Parameter or status check or action	Display and notes	Fault finding
7	Multi-timer unit configuration	ET081: Radio frequency function configuration	ACTIVE with radio frequency remote controls. INACTIVE with infrared remote controls.	If the status details do not correspond to the vehicle's remote controls, reconfigure the multi-timer unit (command mode: configuration operation).
		ET048: Configuration with interior light timer	ACTIVE or INACTIVE	The status is ACTIVE or INACTIVE depending on the configuration of the multi-timer unit
		ET216: Electric door locking button	STATUS 1: electric door locks push button STATUS 2: electric door locks rocker switch	If the status does not correspond with the type of electric door locking switch fitted to the vehicle, the multi-timer unit must be reconfigured.
		ET215: Configuration with hazard warning lights in an impact	ACTIVE or INACTIVE	The status is ACTIVE or INACTIVE depending on the configuration of the multi-timer unit
		ET210: Variable windscreen wiper timer	ACTIVE or INACTIVE	The status is ACTIVE or INACTIVE depending on the configuration of the multi-timer unit
		ET047: Configuration with Arabia overspeed warning	ACTIVE or INACTIVE	The status is ACTIVE or INACTIVE depending on the configuration of the multi-timer unit
		ET041: Daytime running lights configuration	ACTIVE or INACTIVE	The status is ACTIVE or INACTIVE depending on the configuration of the multi-timer unit

FAULT FINDING - CONFORMITY CHECK

NOTES

Only carry out this conformity check after a full check with the diagnostic tool (**there must be no faults present**). The values indicated in this check are only given as examples.

Conditions for carrying out this check: **engine stopped, ignition on.**

Order	Function	Parameter or status check or action	Display and notes	Fault finding
8	Automatic door locking when driving function (CAR function)	ET018: CAR function authorisation via diagnostic procedure ET019: CAR function authorisation via electric door locks	ACTIVE or INACTIVE ACTIVE or INACTIVE	ACTIVE if the multi-timer unit has been configured with the CAR function and INACTIVE otherwise. For more information, refer to the interpretation of these statuses.
9	Impact signal	ET238: Impact signal	INACTIVE	If the status is ACTIVE , the air bag computer has detected an impact. In that case, carry out a fault finding procedure on the air bag and if necessary replace it (if it is locked). N.B. The impact signal disappears when the ignition is switched off.
10	Vehicle speed	PR001: Vehicle speed	X = 0 mph	None.
11	Equipment level	PR014: Equipment level	1, 2, 3 and 4	See Introduction section

DIAGNOSTICS - STATUS INTERPRETATION

ET002	<u>+ 12 VOLTS AFTER IGNITION</u>
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NOTES	None.
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ET002: INACTIVE, ignition on.

Check the passenger compartment fuse **F1 (15A)**.
Change it if necessary.

Disconnect the yellow connector from the multi-timer unit and check the **insulation, continuity and absence of interference resistance** of the connection between:
multi-timer unit yellow connector **track 6** —————▶ **track 1** of the ignition switch connector
Repair if necessary.

AFTER REPAIR	Restart the conformity check from the beginning.
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DIAGNOSTICS - STATUS INTERPRETATION

ET005

WINDSCREEN WIPER PARK POSITION**NOTES**

There must be no faults present or stored.
Switch on the ignition.
Put the wiper stalk in the intermittent wipe position.
The status must be **ACTIVE** every time the windscreen wiper stops.

ET005: ACTIVE when the ignition is switched on.

Check the connection and condition of the windscreen wiper stalk connector.
Change it if necessary.

Disconnect the connector from the windscreen wiper motor and check the **insulation, continuity and absence of interference resistance** of the connection between:
windscreen wiper motor connector **track 1** —————▶ **track K4** of the windscreen wiper relay
Repair if necessary.

Disconnect the windscreen wiper connector, switch on the ignition and check for the presence of **+12 volts on track 1**.
If +12 volts is present on track 1, change the windscreen wiper motor.

ET005: INACTIVE when the ignition is switched on.

Check the connection and condition of the windscreen wiper stalk connector.
Change it if necessary.

Disconnect the yellow connector from the multi-timer unit and check the **insulation, continuity and absence of interference resistance** of the connection between:
multi-timer unit yellow connector **track 10** —————▶ **track K4** of the windscreen wiper relay
Repair if necessary.

Disconnect the yellow connector from the multi-timer unit, switch on the ignition and check for the presence of **+12 volts on track 10**.
If +12 volts is present on track 10, change the multi-timer unit.

AFTER REPAIR

Restart the conformity check from the beginning.

DIAGNOSTICS - STATUS INTERPRETATION

ET006

REAR SCREEN WIPER PARK POSITION**NOTES**

There must be no faults present or stored.
Switch on the ignition.
Put the wiper stalk in the intermittent wipe position.
The status must be **ACTIVE** every time the rear screen wiper stops.

ET006: INACTIVE.

Check the connection and condition of the rear screen wiper switch connector.
Change it if necessary.

Disconnect the yellow connector from the multi-timer unit and check the **insulation, continuity and absence of interference resistance** of the connection between:

multi-timer unit yellow connector **track 19** → **track 2** of the rear screen wiper motor connector

Repair if necessary.

Disconnect the connector from the rear screen wiper motor, switch on the ignition and check for the presence of **+12 volts on track 2**.

If +12 volts is present on track 2, change the rear screen wiper motor.

If +12 volts is absent from track 2, change the multi-timer unit.

AFTER REPAIR

Restart the conformity check from the beginning.

DIAGNOSTICS - STATUS INTERPRETATION

ET020	<u>SIDE LIGHT CONTROL</u>
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NOTES	<p>There must be no faults present or stored. Switch on the ignition. Activate the side lights switch. The status must be ACTIVE.</p>
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ET020: INACTIVE.

Check for the presence of **+12 volts before ignition** on the side lights switch connector **track B2**.
If +12 volts before ignition is absent, check **fuse F10 (60A)** in the engine connection unit (**BIM**).
Change it if necessary.

Check the connection and condition of the side lights switch connector.
Change it if necessary.

Check fuse **F26 (10A)** for vehicles not fitted with daytime running lights.
Check fuse **F20** for vehicles fitted with daytime running lights.
Change it if necessary.

Disconnect the yellow connector from the multi-timer unit and check the **insulation, continuity and absence of interference resistance** of the connection between:
multi-timer unit yellow connector **track 17** —————▶ **track B1** of the side lights switch connector
Repair if necessary.

Disconnect the yellow connector from the multi-timer unit, switch on the ignition and check for the presence of **+12 volts** on **track 17** when the side lights switch is activated.
If +12 volts is absent from track 17, change the side lights switch.
If +12 volts is present on track 17, change the multi-timer unit.

AFTER REPAIR	Restart the conformity check from the beginning.
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DIAGNOSTICS - STATUS INTERPRETATION

ET021	<u>REVERSING LIGHTS SWITCH</u>
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NOTES	<p>There must be no faults present or stored. Switch on the ignition. With reverse gear engaged the status must be ACTIVE.</p>
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ET021: INACTIVE.

Check fuse **F3 (15A)**.
Change it if necessary.

Check the connection and condition of the reversing lights switch connector.
Change it if necessary.

Disconnect the connector from the reversing lights switch, switch on the ignition and check for the presence of **+12 volts** on **track 1**.
Repair if necessary.

Disconnect the blue connector from the multi-timer unit and check the **insulation, continuity and absence of interference resistance** of the connection between:
multi-timer unit blue connector **track 3** —————▶ **track 2** of the reversing light switch connector
Repair if necessary.

Disconnect the blue connector from the multi-timer unit, switch on the ignition and check for the presence of **+12 volts** on **track 3** when reverse gear is engaged.
If +12 volts is absent from track 3, change the reversing light switch.
If +12 volts is present on track 3, change the multi-timer unit.

AFTER REPAIR	Restart the conformity check from the beginning.
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DIAGNOSTICS - STATUS INTERPRETATION

ET022	<u>HAZARD WARNING LIGHTS CONTROL</u>
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NOTES	There must be no faults present or stored. Activate the hazard warning lights switch. The status shown must be ACTIVE .
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ET022: INACTIVE.

Check the connection and condition of the hazard lights connector.
Change it if necessary.

Disconnect the yellow connector from the multi-timer unit and check the **insulation, continuity and absence of interference resistance** of the connection between:
multi-timer unit yellow connector **track 23** —————▶ **track 6** of the hazard lights connector
Repair if necessary.

Disconnect the hazard warning lights connector and check for the presence of **+12 volts on track 6**.
If +12 volts is present on track 6, change the hazard warning lights button.
If +12 volts is absent from track 6, change the multi-timer unit.

AFTER REPAIR	Restart the conformity check from the beginning.
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DIAGNOSTICS - STATUS INTERPRETATION

ET023	<u>DIPPED HEADLIGHTS CONTROL</u>
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NOTES	<p>Only to be checked on cold climate versions. There must be no faults present or stored. Switch on the ignition. The status shown must be ACTIVE.</p>
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ET023: INACTIVE.

Check for the presence of **+12 volts before ignition** on the dipped headlights switch connector **track B3**.
If +12 volts before ignition is absent, check **fuse F8 (60A)** in the engine connection unit (**BIM**).
Change it if necessary.

Check the connection and condition of the dipped headlights switch connector.
Change it if necessary.

Check **fuse F14 (5A)**.
Change it if necessary.

Disconnect the blue connector from the multi-timer unit and check the **insulation, continuity and absence of interference resistance** of the connections between:

- For vehicles fitted with **single headlights**:
multi-timer unit blue connector **track 6** —————▶ **track B5** of the dipped beam headlights switch connector
- For vehicles fitted with **dual headlights**:
multi-timer unit blue connector **track 6** —————▶ **track B4** of the dipped beam headlights switch connector

Repair if necessary.

Disconnect the blue connector from the multi-timer unit, switch on the ignition and check for the presence of **+12 volts** on **track 6** when the dipped headlights switch is activated.
If +12 volts is absent from track 6, change the dipped headlights switch.
If +12 volts is present on track 6, change the multi-timer unit.

AFTER REPAIR	Restart the conformity check from the beginning.
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DIAGNOSTICS - STATUS INTERPRETATION

ET024	<u>MAIN BEAM HEADLIGHT CONTROL</u>
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NOTES	<p>Only to be checked on cold climate versions. There must be no faults present or stored. Switch on the ignition and activate the main beam headlights switch. The status shown must be ACTIVE.</p>
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ET024: INACTIVE.

Check for the presence of **+12 volts before ignition** on the main beam headlights switch connector **track B6**.
If +12 volts before ignition is absent, check **fuse F8 (60A)** in the engine connection unit (**BIM**).
Change it if necessary.

Check the connection and condition of the main beam headlights switch connector.
Change it if necessary.

Disconnect the blue connector from the multi-timer unit and check the **insulation, continuity and absence of interference resistance** of the connection between:

multi-timer unit blue connector **track 5** —————> **track B7** of the main beam headlights switch connector

Repair if necessary.

Disconnect the blue connector from the multi-timer unit, switch on the ignition and check for the presence of **+12 volts** on **track 5** when the main beam headlights switch is activated.
If +12 volts is absent from track 5, change the main beam headlights switch.
If +12 volts is present on track 5, change the multi-timer unit.

AFTER REPAIR	Restart the conformity check from the beginning.
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DIAGNOSTICS - STATUS INTERPRETATION

ET025	<u>TURN SIGNALS SWITCH</u>
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NOTES	There must be no faults present or stored. Switch on the ignition and activate the turn signals switch. The status shown must be ACTIVE .
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ET025: INACTIVE.

Check the connection and condition of the turn signal lights switch connector.
Change it if necessary.

Disconnect the black 6-track connector from the multi-timer unit and check the **insulation, continuity and absence of interference resistance** of the connection between:

multi-timer unit black connector **track A3** —————▶ **track A6** of the turn signal lights switch connector

Repair if necessary.

Disconnect the connector from the turn signals switch and check for the presence of **+12 volts before ignition** on **track A6**.

If +12 volts before ignition is present on track A6, change the turn signals switch.

If +12 volts before ignition is absent from track A6, change the multi-timer unit.

AFTER REPAIR	Restart the conformity check from the beginning.
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DIAGNOSTICS - STATUS INTERPRETATION

ET035	<u>WINDSCREEN WIPER INTERMITTENT WIPE</u>
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NOTES	<p>There must be no faults present or stored. Switch on the ignition. Put the windscreen wiper stalk in the intermittent wipe position. The status shown must be ACTIVE.</p>
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ET035: INACTIVE.

Check the connection and condition of the windscreen wiper stalk connector.
Change it if necessary.

Disconnect the connector from the wiper switch, switch on the ignition and check for the presence of earth on **track B5** and +12 volts on **track B4**.

If +12 volts is absent from track B4, check fuse F3 (15A).

Repair if necessary.

With the ignition switched on, check for the presence of **+12 volts on track A1 of the wiper switch** when the windscreen wiper switch is in the intermittent wipe position.

Change the wiper switch if 12 volts is not being applied.

Disconnect the yellow connector from the multi-timer unit and check the **insulation, continuity and absence of interference resistance** of the connection between:

multi-timer unit yellow connector **track 18**  **track A1** of the windscreen wiper switch connector

Repair if necessary.

If the fault persists, change the multi-timer unit.

AFTER REPAIR	Restart the conformity check from the beginning.
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DIAGNOSTICS - STATUS INTERPRETATION

ET036	<u>REAR SCREEN WIPER INTERMITTENT WIPE</u>
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NOTES	<p>There must be no faults present or stored. Switch on the ignition. Put the rear screen wiper stalk in the intermittent wipe position. The status shown must be ACTIVE.</p>
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ET036: INACTIVE.

Check the connection and condition of the windscreen wiper stalk connector.
Change it if necessary.

Disconnect the connector from the wiper switch, switch on the ignition and check for the presence of **earth** on **track B5** and **+12 volts** on **track B4**.

If +12 volts is absent from track B4, check fuse **F3 (15A)**.

Repair if necessary.

With the ignition switched on, check for the presence of **+12 volts** on **track B2 of the wiper switch** when the rear screen wiper switch is in the intermittent wipe position.

Change the wiper switch if 12 volts is not being applied.

Disconnect the yellow connector from the multi-timer unit and check the **insulation, continuity and absence of interference resistance** of the connection between:

multi-timer unit yellow connector **track 4**  **track B2** of the windscreen wiper switch connector

Repair if necessary.

If the fault persists, change the multi-timer unit.

AFTER REPAIR	Restart the conformity check from the beginning.
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DIAGNOSTICS - STATUS INTERPRETATION

ET061 ET062	<u>IR / RF REMOTE CONTROL SIGNAL RECEIVED</u> <u>IR / RF REMOTE CONTROL SIGNAL CORRECT</u>
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NOTES	<p>Special note: Before trying to find a possible problem with these statuses, check that the remote controls have been correctly programmed, by viewing status: ET011 INFRARED REMOTE CONTROL (TIR) / RADIO FREQUENCY REMOTE CONTROL (TRF) key programming done. This status should be displayed as ACTIVE. If not, refer to the technical note dealing with the programming of remote controls.</p>
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IN NORMAL OPERATION:

RADIO FREQUENCY REMOTE CONTROL NOT USED:

ET061: IR / RF REMOTE CONTROL SIGNAL: SIGNAL RECEIVED → **NO**
ET062: IR / RF REMOTE CONTROL SIGNAL: SIGNAL CORRECT → **INACTIVE**

OPEN OR CLOSE COMMAND VIA RADIO FREQUENCY REMOTE CONTROL:

ET061: IR / RF REMOTE CONTROL SIGNAL: SIGNAL RECEIVED → **YES**
ET062: IR / RF REMOTE CONTROL SIGNAL: SIGNAL CORRECT → **ACTIVE**

If these two statuses do not function as described above, **two situations may arise:**

1	<p><u>OPEN OR CLOSE COMMAND VIA RADIO FREQUENCY REMOTE CONTROL:</u></p> <p> ET061: IR / RF REMOTE CONTROL SIGNAL: SIGNAL RECEIVED → YES ET062: IR / RF REMOTE CONTROL SIGNAL: SIGNAL CORRECT → INACTIVE </p> <p>The electronic system in the key is functioning correctly and the radio frequency receiver is receiving the signal and sending it to the decoder unit, but the signal is not correct:</p> <ul style="list-style-type: none"> - the key being used does not belong to the vehicle, <p style="text-align: center;">or</p> <ul style="list-style-type: none"> - the remote control needs to be resynchronised (see the technical note dealing with programming of remote controls). <p>If resynchronisation does not solve the problem, the key head chip must be replaced.</p>
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AFTER REPAIR	Restart the conformity check from the beginning.
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DIAGNOSTICS - STATUS INTERPRETATION**ET061**
ET062
continued**2**OPEN OR CLOSE COMMAND VIA RADIO FREQUENCY REMOTE CONTROL:

ET061: IR / RF REMOTE CONTROL SIGNAL: SIGNAL RECEIVED → **NO**
ET062: IR / RF REMOTE CONTROL SIGNAL: SIGNAL CORRECT → **INACTIVE**

There are 4 possible causes of the problem:

- the key head chip is inoperative
- the radio frequency receiver is inoperative
- the connection between the radio frequency receiver and the multi-timer unit is faulty
- the multi-timer unit is inoperative.

The remote control needs to be resynchronised (see the technical note dealing with programming of remote controls).

To find out which component is faulty, refer to **fault finding chart number 14 (ALP 14)** problems with locking / unlocking the doors with the radio frequency remote control).

AFTER REPAIR

Restart the conformity check from the beginning.

DIAGNOSTICS - STATUS INTERPRETATION

ET238	<u>IMPACT SIGNAL</u>
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NOTES	None.
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ET238: ACTIVE, ignition on.

Carry out fault finding on the air bag (see Air bag fault finding section).

AFTER REPAIR

Restart the conformity check from the beginning.

FAULT FINDING - CUSTOMER COMPLAINTS**NOTES**

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

CUSTOMER COMPLAINTS

NO DIALOGUE WITH THE COMPUTER	CHART 1
TURN SIGNALS DO NOT OPERATE	CHART 2
SIDE LIGHTS DO NOT OPERATE	CHART 3
DIPPED HEADLIGHTS DO NOT OPERATE	CHART 4
MAIN BEAM HEADLIGHTS DO NOT OPERATE	CHART 5
FRONT FOG LIGHTS DO NOT OPERATE	CHART 6
REAR FOG LIGHTS DO NOT OPERATE	CHART 7
INTERIOR LIGHT DOES NOT OPERATE	CHART 8
ELECTRIC WINDOWS DO NOT OPERATE	CHART 9
WINDSCREEN WIPER LOW SPEED DOES NOT OPERATE	CHART 10
WINDSCREEN WIPER HIGH SPEED DOES NOT OPERATE	CHART 11
REAR SCREEN WIPER DOES NOT OPERATE	CHART 12
DOOR LOCKING / UNLOCKING DOES NOT OPERATE WITH THE EDL BUTTON	CHART 13
DOOR LOCKING / UNLOCKING DOES NOT OPERATE WITH THE RADIO FREQUENCY REMOTE CONTROL	CHART 14

FAULT FINDING - FAULT FINDING CHARTS

CHART 1	NO DIALOGUE WITH THE COMPUTER															
NOTES	None.															
<p>Make sure that the vehicle's battery is properly charged. Put the battery on charge if necessary.</p>																
<p>Try out the diagnostic tool on another vehicle (to check that the tool is not faulty).</p>																
<p>Check:</p> <ul style="list-style-type: none"> – the connection between the diagnostic tool and the diagnostic socket (lead in good condition), – the injection, engine and passenger compartment fuses. 																
<p>Check for the presence of +12 volts before ignition on track 16, +12 volts after ignition on track 1 and earth on tracks 4 and 5 of the diagnostic socket. Repair if necessary.</p>																
<p>Make sure that the multi-timer unit is correctly fed and correctly connected to the diagnostic socket by checking the insulation, continuity and absence of interference resistance of the following connections:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">multi-timer unit black connector track B1</td> <td style="text-align: center;">—▶</td> <td>+ before ignition (engine fuse box)</td> </tr> <tr> <td>multi-timer unit yellow connector track 6</td> <td style="text-align: center;">—▶</td> <td>+ after ignition (passenger compartment fuse box)</td> </tr> <tr> <td>multi-timer unit black connector track A1</td> <td style="text-align: center;">—▶</td> <td>earth</td> </tr> <tr> <td>multi-timer unit yellow connector track 1</td> <td style="text-align: center;">—▶</td> <td>track 15 of the diagnostic socket (line L)</td> </tr> <tr> <td>multi-timer unit yellow connector track 14</td> <td style="text-align: center;">—▶</td> <td>track 7 of the diagnostic socket (line K)</td> </tr> </table> <p>Repair if necessary.</p>		multi-timer unit black connector track B1	—▶	+ before ignition (engine fuse box)	multi-timer unit yellow connector track 6	—▶	+ after ignition (passenger compartment fuse box)	multi-timer unit black connector track A1	—▶	earth	multi-timer unit yellow connector track 1	—▶	track 15 of the diagnostic socket (line L)	multi-timer unit yellow connector track 14	—▶	track 7 of the diagnostic socket (line K)
multi-timer unit black connector track B1	—▶	+ before ignition (engine fuse box)														
multi-timer unit yellow connector track 6	—▶	+ after ignition (passenger compartment fuse box)														
multi-timer unit black connector track A1	—▶	earth														
multi-timer unit yellow connector track 1	—▶	track 15 of the diagnostic socket (line L)														
multi-timer unit yellow connector track 14	—▶	track 7 of the diagnostic socket (line K)														
<p>If the checks have not made it possible to solve the problem, replace the multi-timer unit.</p>																

AFTER REPAIR

When dialogue is established, deal with any faults present or stored.
Carry out a conformity check.
Check that the immobiliser system is operating.

FAULT FINDING - FAULT FINDING CHARTS

CHART 2	TURN SIGNALS DO NOT OPERATE
NOTES	Only investigate this customer complaint after a full check with the diagnostic tool (there must be no faults present). Check the bulbs.

Check the condition of fuse **F22 (15A)**.
Change it if necessary.

With the flasher unit (**relay C**) disconnected, check for the presence of **+12 volts before ignition on track C3** of the multi-timer unit (where the relay was).

If +12 volts before ignition is absent from track C3, check the **insulation, continuity and absence of interference resistance** of the connections between:

Battery —————▶ fuse holder **F22**
fuse holder **F22** —————▶ **track C3** on the multi-timer unit

Repair if necessary.

Activate the **turn signal lights** actuator control and check that the relay can in fact be heard operating.
Change it if necessary.

Activate the turn signal lights control and check that status **ET025 Turn signals control** is active.
If not, refer to the **Status Interpretation** section.

Disconnect the connector from the turn signals switch and check the **insulation, continuity and absence of interference resistance** of the connections between:

Turn signals stalk connector **track A7** —————▶ LH turn signal
Turn signals stalk connector **track A5** —————▶ RH turn signal

Repair if necessary.

AFTER REPAIR

When dialogue is established, deal with any faults present or stored.
Carry out a conformity check.
Check that the immobiliser system is operating.

FAULT FINDING - FAULT FINDING CHARTS

CHART 4

DIPPED HEADLIGHTS DO NOT OPERATE

NOTES

Only investigate this customer complaint **after a full check with the diagnostic tool (there must be no faults present).**
Check the bulbs.

VEHICLES WITHOUT DAYTIME RUNNING LIGHTS

Check for the presence of **+12 volts before ignition** on the dipped headlights switch connector **track B3**.
If +12 volts before ignition is absent, check fuse **F8 (60A)** in the engine connection unit (**BIM**).
Change it if necessary.

- For vehicles fitted with **single headlights**:

Check for the presence of **+12 volts** on the dipped headlights switch connector **track B5** when the dipped headlights switch is activated.

- For vehicles fitted with **dual headlights**:

Check for the presence of **+12 volts** on the dipped headlights switch connector **track B4** when the dipped headlights switch is activated.

If +12 volts are absent from **track B5** or from **track B4**, change the dipped headlights switch.

Check the condition of fuses **F9 (10A)** and **F10 (10A)**.

Change them, if necessary.

Disconnect the connector from the dipped headlights switch and check the **insulation, continuity and absence of interference resistance** of the connections between:

- For vehicles fitted with **single headlights**:

dipped headlights switch connector **track B5** —————> fuse holder **F9**

fuse holder **F9** —————> left hand dipped headlight

dipped headlights switch connector **track B5** —————> fuse holder **F10**

fuse holder **F10** —————> right hand dipped headlight

- For vehicles fitted with **dual headlights**:

dipped headlights switch connector **track B4** —————> fuse holder **F10**

fuse holder **F10** —————> right hand dipped headlight

dipped headlights switch connector **track B4** —————> fuse holder **F9**

fuse holder **F9** —————> left hand dipped headlight

Repair if necessary.

AFTER REPAIR

When dialogue is established, deal with any faults present or stored.
Carry out a conformity check.
Check that the immobiliser system is operating.

FAULT FINDING - FAULT FINDING CHARTS

CHART 4
(continued 1)

VEHICLES WITH DAYTIME RUNNING LIGHTS

Check for the presence of **+12 volts before ignition** on the dipped headlights switch connector **track B3**.
If +12 volts before ignition is absent, check fuse **F8 (60A)** in the engine connection unit (**BIM**).
 Change it if necessary.

With the dipped headlights relay (relay H) disconnected, check for the presence of **+12 volts before ignition on track H3** of the multi-timer unit (where the relay was).
If +12 volts before ignition is absent from track H3, check the **insulation, continuity and absence of interference resistance** of the connections between:

Battery —————▶ fuse holder **F8**
 fuse holder **F8** —————▶ **track H3** on the multi-timer unit

Repair if necessary.

Activate the dipped headlights switch and check that status **ET023 dipped headlights switch** is active.
 If not, refer to the **Status Interpretation** section.

Activate the **dipped headlight** actuator control and check that the relay can in fact be heard operating.
 Is the relay operating?

YES

Check the condition of fuses **F9 (10A)** and **F10 (10A)**.
 Change them, if necessary.

With the side lights relay (**relay H**) disconnected, check on **track H5 of the multi-timer unit** (where the relay was) the **insulation, continuity and absence of interference resistance** of the connections between:

multi-timer unit **track H5** —————▶ fuse holder **F9**
 fuse holder **F9** —————▶ left hand dipped headlight
 multi-timer unit **track H5** —————▶ fuse holder **F10**
 fuse holder **F10** —————▶ right hand dipped headlight

Repair if necessary.

AFTER REPAIR

When dialogue is established, deal with any faults present or stored.
 Carry out a conformity check.
 Check that the immobiliser system is operating.

FAULT FINDING - FAULT FINDING CHARTS

CHART 4
(continued 2)

NO

Check the resistance of the relay coil between **tracks 1 or 86** and **tracks 2 or 85**.
Relay coil resistance = $90 \pm 5 \Omega$.
Replace the relay if necessary.

With the dipped headlights relay (relay H) disconnected, check for the presence of **+12 volts before ignition on track 1 or 86** of the multi-timer unit, where the relay was (track not marked on the multi-timer unit so refer to the relay tracks when carrying out the check).

If +12 volts before ignition is absent, replace the multi-timer unit.

AFTER REPAIR

When dialogue is established, deal with any faults present or stored.
Carry out a conformity check.
Check that the immobiliser system is operating.

FAULT FINDING - FAULT FINDING CHARTS

CHART 5

MAIN BEAM HEADLIGHTS DO NOT OPERATE

NOTES

Only investigate this customer complaint **after a full check with the diagnostic tool (there must be no faults present).**
Check the bulbs.

Check the condition of fuses **F9 (10A)** and **F10 (10A)**.
Change them, if necessary.

Activate the main beam headlights switch and check that status **ET024 main beam headlights switch** is active.
If not, refer to the **Status Interpretation** section.

Disconnect the connector from the main beam headlights switch and check the **insulation, continuity and absence of interference resistance** of the connections between:

main beam headlights switch connector track B7	→	fuse holder F11
fuse holder F11	→	right hand main beam headlight
main beam headlights switch connector track B7	→	fuse holder F12
fuse holder F12	→	left hand main beam headlight

Repair if necessary.

AFTER REPAIR

When dialogue is established, deal with any faults present or stored.
Carry out a conformity check.
Check that the immobiliser system is operating.

FAULT FINDING - FAULT FINDING CHARTS

CHART 6

FRONT FOG LIGHTS DO NOT OPERATE

NOTES

Only investigate this customer complaint **after a full check with the diagnostic tool (there must be no faults present).**
Check the bulbs.

Check the condition of fuse **F18 (15A)**.
Change it if necessary.

With the front fog lights relay (**relay A**) disconnected, check on **track A3** of the multi-timer unit (where the relay was) and on **track A1** of the front fog lights switch connector, the **insulation, continuity and absence of interference resistance** of the connection between:

fog lights switch connector **track A1** —————> **track A3** on the multi-timer unit

Repair if necessary.

With the front fog lights relay (**relay A**) disconnected, check for the presence of **+12 volts after ignition on track A3** of the multi-timer unit (where the relay was) and **earth on track A2**, when the front fog lights are switched on.

If +12 volts after ignition is absent from track A3, change the front fog lights switch.

If +12 volts after ignition is present on track A3, check the relay coil between **tracks 86 and 85**.

Relay coil resistance = $65 \pm 5\Omega$.

Replace the relay if necessary.

With the front fog lights relay (**relay A**) disconnected, check on **track A5 of the multi-timer unit** (where the relay was) the **insulation, continuity and absence of interference resistance** of the connection between:

multi-timer unit **track A5** —————> LH and RH front fog lights

Repair if necessary.

AFTER REPAIR

When dialogue is established, deal with any faults present or stored.
Carry out a conformity check.
Check that the immobiliser system is operating.

FAULT FINDING - FAULT FINDING CHARTS

CHART 7

REAR FOG LIGHTS DO NOT OPERATE

NOTES

Only investigate this customer complaint **after a full check with the diagnostic tool (there must be no faults present).**
Check the bulbs.

Check the condition of fuse **F23 (15A)**.
Change it if necessary.

Disconnect the connector from the rear fog lights switch and check the **insulation, continuity and absence of interference resistance** of the connections between:

rear fog lights switch connector **track A3** → fuse holder **F23**
fuse holder **F23** → left hand rear fog light

Repair if necessary.

AFTER REPAIR

When dialogue is established, deal with any faults present or stored.
Carry out a conformity check.
Check that the immobiliser system is operating.

FAULT FINDING - FAULT FINDING CHARTS

CHART 8

INTERIOR LIGHT DOES NOT OPERATE

NOTES

Only investigate this customer complaint **after a full check with the diagnostic tool (there must be no faults present).**
Check the bulbs.

Interior light permanently on position

Check the condition of fuse **F29 (20A)**.
Change it if necessary.

Disconnect the connector from the front interior light and check for the presence of **+12 volts before ignition** on **track A2** and **earth** on **track A1**.

If +12 volts before ignition is absent from track A2, check the **insulation, continuity and absence of interference resistance** of the connection between:

front interior light connector **track A2** —————> fuse holder **F29**

Repair if necessary.

If +12 volts before ignition is present on track A2 and **earth** is present on **track A1**, change the interior light.

Interior light timed lighting position

Disconnect the yellow connector from the multi-timer unit and check the **insulation, continuity and absence of interference resistance** of the connection between:

multi-timer unit yellow connector **track 13** —————> **track 1** of the front door switch connectors

Repair if necessary.

Disconnect the front door switch connectors and check for the presence of **+12 volts before ignition** on **track 1**.

If +12 volts before ignition is present on track 1 of the front door switch connectors, replace the front door switches.

If +12 volts before ignition is absent from track 1 of the front door switch connectors, replace the multi-timer unit.

Disconnect the yellow connector from the multi-timer unit and check the **insulation, continuity and absence of interference resistance** of the connection between:

multi-timer unit yellow connector **track 26** —————> **track A3** of the interior light connector

Repair if necessary.

AFTER REPAIR

When dialogue is established, deal with any faults present or stored.
Carry out a conformity check.
Check that the immobiliser system is operating.

FAULT FINDING - FAULT FINDING CHARTS

CHART 8
(continued)

The interior light is in the timed position (interior light comes on when one of the front doors is opened or in response to the remote control when the car is unlocked).

Disconnect the yellow connector from the multi-timer unit, switch on the ignition and check for the presence of **+12 volts before ignition on track 26**.

If +12 volts before ignition is absent from track 26, change the interior light.

If +12 volts before ignition is present on track 26, replace the multi-timer unit.

AFTER REPAIR

When dialogue is established, deal with any faults present or stored.
Carry out a conformity check.
Check that the immobiliser system is operating.

FAULT FINDING - FAULT FINDING CHARTS

CHART 9

ELECTRIC WINDOWS DO NOT OPERATE

NOTES

Only investigate this customer complaint **after a full check with the diagnostic tool (there must be no faults present).**

Driver's non one-touch electric window

Check the condition of fuse **F36 (30A)**.
Change it if necessary.

Check for the presence of **+ 12 volts after ignition** on the input to fuse holder **F36 (30A)**.
If +12 volts after ignition is absent from the fuse holder input, check the after ignition relay (**relay Q**).
Activate the **+12 volts after ignition relay** actuator control and check that the relay can in fact be heard operating.
Is the relay operating?

YES

Disconnect the connector from the driver's electric window control button and check for the presence of **+12 volts after ignition** on **track 3** and **earth** on **track 2**.
If +12 volts after ignition is absent from track 3, check the **insulation, continuity and absence of interference resistance** of the connection between:
driver's electric window control
button connector **track 3** → fuse holder **F36**
Repair if necessary.

NO

With the +12 volts after ignition relay (relay Q) disconnected, check for the presence of **+12 volts before ignition** on **track 86** or **1** of the multi-timer unit (where the relay was)..
If +12 volts before ignition is present on track 86 or 1, check the resistance of the relay coil between **track 86 or 1** and **track 85 or 2**.
Relay coil resistance = $65 \pm 5\Omega$.
Replace the relay if necessary.
If +12 volts before ignition is absent from track 86 or 1, change the multi-timer unit.

AFTER REPAIR

When dialogue is established, deal with any faults present or stored.
Carry out a conformity check.
Check that the immobiliser system is operating.

FAULT FINDING - FAULT FINDING CHARTS

CHART 9
(continued)

Driver's one-touch electric windows

Check the condition of fuse **F32 (30A)**.
Change it if necessary.

Disconnect the blue connector from the multi-timer unit and check the **insulation, continuity and absence of interference resistance** of the connections between:

multi-timer unit blue connector **track 1** —————▶ **track 2** of the driver's electric window switch

multi-timer unit blue connector **track 2** —————▶ **track 6** of the driver's electric window switch

Repair if necessary.

Disconnect the connector from the driver's electric window switch and check for the presence of **+12 volts before ignition** on **track 2** and **track 6**.

If +12 volts before ignition is present on track 1 and track 2, change the driver's one-touch electric window switch.

If +12 volts before ignition is absent from track 1 or track 2, replace the multi-timer unit.

Activate the **electric window up** actuator control and the **electric window down** actuator control and check that the relays can be heard operating.

Are the relays operating?

YES

Disconnect the driver's one-touch electric window relays (**relays D and E**) and check for the presence of **+ 12 volts before ignition** on **tracks 5 or 87** of the multi-timer unit, where the relays were (tracks not marked on the multi-timer unit, so refer to the relay tracks when carrying out the check).

If +12 volts before ignition is absent from tracks 5 or 87, check the **insulation, continuity and absence of interference resistance** of the connections between:

(relay D)

on multi-timer unit **track 5 or 87** —————▶ fuse holder **F32**

(relay E)

on multi-timer unit **track 5 or 87** —————▶ fuse holder **F32**

Repair if necessary.

NO

Replace the multi-timer unit.

AFTER REPAIR

When dialogue is established, deal with any faults present or stored.
Carry out a conformity check.
Check that the immobiliser system is operating.

FAULT FINDING - FAULT FINDING CHARTS

CHART 10

WINDSCREEN WIPER LOW SPEED DOES NOT OPERATE

NOTES

Only investigate this customer complaint **after a full check with the diagnostic tool (there must be no faults present).**

Check the condition of fuse **F4 (15A)**.
Change it if necessary.

Disconnect the connector from the windscreen wiper switch and check for the presence of **+ 12 volts after ignition on track A7**.

If +12 volts is absent from track A7, check the **insulation, continuity and absence of interference resistance** of the connection between:

windscreen wiper switch connector **track A7** —————▶ fuse holder **F4**

Repair if necessary.

With the ignition switched on, put the windscreen wiper stalk in the low speed position.

Disconnect the connector from the windscreen wiper motor and check for the presence of **+ 12 volts after ignition on track 3** and **earth on track 5**.

If +12 volts after ignition is present on track 3, change the windscreen wiper motor.

If +12 volts after ignition is absent from track 3, change the wiper switch.

AFTER REPAIR

When dialogue is established, deal with any faults present or stored.
Carry out a conformity check.
Check that the immobiliser system is operating.

FAULT FINDING - FAULT FINDING CHARTS

CHART 11

WINDSCREEN WIPER HIGH SPEED DOES NOT OPERATE

NOTES

Only investigate this customer complaint **after a full check with the diagnostic tool (there must be no faults present).**

Check the condition of fuse **F4 (15A)**.
Change it if necessary.

Disconnect the connector from the windscreen wiper switch and check for the presence of **+ 12 volts after ignition** on **track A7**.

If +12 volts is absent from track A7, check the **insulation, continuity and absence of interference resistance** of the connection between:

windscreen wiper switch connector **track A7** —————▶ fuse holder **F4**

Repair if necessary.

With the ignition switched on, shift the windscreen wiper stalk to the high speed position.

Disconnect the connector from the windscreen wiper motor and check for the presence of **+ 12 volts after ignition** on **track 4** and **earth** on **track 5**.

If +12 volts after ignition is present on track 4, change the windscreen wiper motor.

If +12 volts after ignition is absent from track 4, change the wiper switch.

AFTER REPAIR

When dialogue is established, deal with any faults present or stored.
Carry out a conformity check.
Check that the immobiliser system is operating.

FAULT FINDING - FAULT FINDING CHARTS

CHART 12

REAR SCREEN WIPER DOES NOT OPERATE

NOTES

Only investigate this customer complaint **after a full check with the diagnostic tool (there must be no faults present).**

Check the condition of fuse **F3 (15A)**.
Change it if necessary.

Disconnect the connector from the rear screen wiper switch and check for the presence of **+ 12 volts after ignition on track B4**.

If +12 volts is absent from track B4, check the **insulation, continuity and absence of interference resistance** of the connection between:

rear screen wiper switch connector **track B4** —————▶ fuse holder **F3**

Repair if necessary.

With the ignition switched on, activate the rear screen wiper.

Disconnect the connector from the rear screen wiper motor and check for the presence of **+ 12 volts after ignition on track 1** and **earth on track 3**.

If +12 volts after ignition is present on track 1, change the rear screen wiper motor.

If +12 volts after ignition is absent from track 4, check the rear screen wiper relay (relay L).

Activate the **rear screen wiper** actuator control and check that the relay can in fact be heard operating.
Is the relay operating?

YES

With the rear screen wiper relay (**relay L**) disconnected, check for the presence of **+12 volts after ignition on track L5** of the multi-timer unit (where the relay was) and **earth on track L4**.

If +12 volts after ignition is absent from track L5, check the **insulation, continuity and absence of interference resistance** of the connection between:

multi-timer unit **track L5** —————▶ fuse holder **F3**

Repair if necessary.

NO

Check the resistance of the relay coil between **tracks 1 or 86** and **tracks 2 or 85**.

Relay coil resistance = $65 \pm 5\Omega$.

Replace the relay if necessary.

With the rear screen wiper relay (relay L) disconnected, check for the presence of **+12 volts before ignition on track 1 or 86** of the multi-timer unit, where the relay was (track not marked on the multi-timer unit so refer to the relay tracks when carrying out the check).

If +12 volts before ignition is absent from track 1 or 86, replace the multi-timer unit.

AFTER REPAIR

When dialogue is established, deal with any faults present or stored.

Carry out a conformity check.

Check that the immobiliser system is operating.

CHART 13

DOOR LOCKING / UNLOCKING DOES NOT OPERATE WITH THE
EDL BUTTON

NOTES

Only investigate this customer complaint **after a full check with the diagnostic tool (there must be no faults present).**

Special notes:

Before carrying out the diagnostic procedure, make sure that the configuration of the EDL switch corresponds with the switch fitted on the vehicle, by viewing status **ET216** EDL (Electric Door Locking) BUTTON.

Reconfigure the multi-timer unit if necessary (if the configuration is not correct the system will not operate correctly).

Activate the **opening movement** actuator control and the **closing movement** actuator control.
Do the doors lock and unlock?

YES

Disconnect the yellow connector from the multi-timer unit and check the **insulation, continuity and absence of interference resistance** of the connections between:

multi-timer unit yellow connector
track 7 —————▶ **track 2** of the door locking button

multi-timer unit yellow connector

track 22 —————▶ **track 6** of the door locking button

Repair if necessary.

Disconnect the connector from the door locking/unlocking button and check for the presence of **+12 volts before ignition** on **track 2** and **track 6** and **earth** on **track 4**.
If +12 volts is present on tracks 2 and 6, change the door locking/unlocking button (EDL).

NO

Check fuse **F31 (30A)**.

Change it if necessary.

N.B. If the fuse is replaced and blows again, check the door locks power circuit (short circuit to +12 volts).

With the locking relay (relay N) and the unlocking relay (relay P) disconnected, check for the presence of **+12 volts before ignition** on **tracks N5** and **P5** of the multi-timer unit (where the relays were) and **earth** on **tracks N4** and **P4**.

Repair if necessary.

Check the resistance of the relay coils between **tracks 1 or 86** and **tracks 2 or 85**.
Relay coils resistance = $65 \pm 5\Omega$.
Replace the relay(s) if necessary.

AFTER REPAIR

When dialogue is established, deal with any faults present or stored.
Carry out a conformity check.
Check that the immobiliser system is operating.

CHART 13
(continued)

With the locking relay (relay N) and the unlocking relay (relay P) disconnected, check for the presence of **+ 12 volts before ignition** on **tracks 1 or 86** of the multi-timer unit, where the relays were (tracks not marked on the multi-timer unit, so refer to the relay tracks when carrying out the check).
If +12 volts before ignition is absent, replace the multi-timer unit.

With the locking relay (relay N) and the unlocking relay (relay P) disconnected, check on the multi-timer unit (where the relays were) the **insulation, continuity and absence of interference resistance** of the connections between:

multi-timer unit **track N3** → **track 1** of the motors
multi-timer unit **track P3** → **track 2** of the motors

Repair if necessary.

Disconnect the motors and check their resistances between **track 1** and **track 2**.
Their resistances should not be zero or infinity.
Replace the motor(s) if necessary.

AFTER REPAIR

When dialogue is established, deal with any faults present or stored.
Carry out a conformity check.
Check that the immobiliser system is operating.

FAULT FINDING - FAULT FINDING CHARTS

CHART 14

DOOR LOCKING / UNLOCKING DOES NOT OPERATE WITH THE RADIO FREQUENCY REMOTE CONTROL

NOTES

Only investigate this customer complaint **after a full check with the diagnostic tool (there must be no faults present).**

Special notes:

Before carrying out this diagnostic procedure, make sure that the configuration of the remote control is correct by viewing status **ET081** RF (RADIO FREQUENCY) FUNCTION CONFIGURATION. It must be **ACTIVE**. Reconfigure the multi-timer unit if necessary.

Also make sure that the programming of the remote controls has been carried out by viewing status **ET011** IR / RF (RADIO FREQUENCY TRANSMISSION) KEY PROGRAMMING DONE. It must be **ACTIVE**. Repeat the programming if necessary.

With the diagnostic tool connected, consult the status screen and ensure that statuses are operating as shown below.

RADIO FREQUENCY REMOTE CONTROL NOT USED:

- **ET061**: IR / RF SIGNAL: SIGNAL RECEIVED —————> **NO**
- **ET062**: IR / RF SIGNAL: SIGNAL CORRECT —————> **INACTIVE**

OPEN OR CLOSE REQUEST VIA THE RADIO FREQUENCY REMOTE CONTROL:

- **ET061**: IR / RF SIGNAL: SIGNAL RECEIVED —————> **YES**
- **ET062**: IR / RF SIGNAL: SIGNAL CORRECT —————> **ACTIVE**

If these two statuses do not function as described above, two situations may arise:

1st case

OPEN OR CLOSE REQUEST VIA THE RADIO FREQUENCY REMOTE CONTROL:

- **ET061**: IR / RF SIGNAL: SIGNAL RECEIVED —————> **YES**
- **ET062**: IR / RF SIGNAL: SIGNAL CORRECT —————> **ACTIVE**

The electronic system in the key is functioning correctly and the radio frequency receiver is receiving the signal and sending it to the multi-timer unit, but the signal is not correct:

- the key being used does not belong to the vehicle,
- or

- the remote control must be resynchronised (see the programming procedure).

If resynchronisation does not solve the problem, the electronic system in the key must be replaced.

2nd case

OPEN OR CLOSE REQUEST VIA THE RADIO FREQUENCY REMOTE CONTROL:

- **ET061**: IR / RF SIGNAL: SIGNAL RECEIVED —————> **NO**
- **ET062**: IR / RF SIGNAL: SIGNAL CORRECT —————> **INACTIVE**

- Make sure that the remote control **battery is in good condition** (3 volts) and replace it if necessary.

AFTER REPAIR

Check that the immobiliser system is operating.

FAULT FINDING - FAULT FINDING CHARTS

CHART 14
(continued)

Check for the presence of earth on track 5 and +12 volts before ignition on track 2 of the radio frequency receiver (located behind the diagnostic socket).
Repair if necessary.

With the ignition switched off, disconnect the connector from the radio frequency receiver and check the **insulation, continuity and absence of interference resistance** of the connection between:
radio frequency receiver **track 1** —————▶ **track 11** of the multi-timer unit
Repair if necessary.

Is the fault still present?

YES

Carry out a test with a new radio frequency receiver.
If the problem is solved, replace the radio frequency receiver.
If the problem persists, change the radio frequency remote control.
If the problem persists, change the multi-timer unit.

NO

End of fault finding.

AFTER REPAIR

When dialogue is established, deal with any faults present or stored.
Carry out a conformity check.
Check that the immobiliser system is operating.