DUSTER

8 Electrical equipment

86A RADIO

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V1 **Edition Anglaise**

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

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

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1. SCOPE OF THIS DOCUMENT

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

Vehicle(s): **DUSTER**

Function concerned: **Radio R0-08**

2. PREREQUISITES FOR FAULT FINDING

Documentation type

Fault finding procedures (this document):
– Dialogys.

Wiring Diagrams:
– Visu-Schéma.

Special tooling required

Special tooling required
Multimeter.

3. SAFETY INSTRUCTIONS

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

4. GENERAL INFORMATION

For repairs or fault finding, the radio has a test menu (see **self-test procedure**).

The radio supply must be between **10.5 V** and **16 V**.

The radio will operate for approximately **60 minutes** without the ignition being switched to the accessories position.

Radio
The radio transmits audio signals into the vehicle via the speakers.

Aerial
The aerial receives radio waves from different stations.

Compact disc player
The compact disc player reads compact discs and reproduces the music on the radio.

Display
The display shows various radio information such as the name/frequency of the radio station being listened to, the sound level, as well as various audio settings.

Speakers
The speakers receive audio signals from the radio and reproduce the sound in the vehicle.

Steering wheel controls
The steering wheel controls provide access to various functions of the radio.

Accessories socket on front panel (mini type jack)
The audio accessories socket on the radio front panel provides connectivity for a mobile device (e.g.: MP3 player, etc.).

Functions provided by the radio:

– FM - AM reception,
– CD player, audio CD or CD/MP3 (depending on the vehicle equipment),
– Monochrome display with two backlighting levels (day / night),
– Control by satellite control on the steering wheel,
– Temporary sound cut-off with the mute button by simultaneously pressing two buttons of the satellite control,
– Bass, treble, and sound distribution settings (balance and fader),
– Automatic tracking of stations with the RDS* function,
– Selection of AM (LW and MW) and FM bands,
– Audio type jack on the radio front panel for connecting a mobile device (e.g.: MP3 player, etc.),
– Anti-theft protection using a 4-digit code,
– Display the name of the station using RDS*, which automatically switches to the best transmitter (**AF** function).

* RDS: Radio Data System

Radio operation

The radio uses 3 FM bands:
FM1 with storage of 6 preselections (preset)
FM2 with storage of 6 preselections (preset)
FMT for preselections recorded by the autostore function (AST), which selects the 6 best stations.

CD function

The CD player can play conventional discs and any audio tracks on a CD-ROM (MP3 type, etc.).

CDs can be played in order or tracks can be chosen at random.

Defect modes:

If the 4-digit anti-theft code entered is incorrect, the system locks and the message "CODE" appears on the display.
Before trying to enter the code again, wait for the system to come on and unlock itself.

Thermal protection

A thermal protection is integrated into the CD radio in order to protect the laser diode.
It switches off the CD function from **70˚C**.
The CD player function is restored when the temperature falls below this threshold.

TUNER CONFIGURATION

The radio configuration can be corrected or changed when the anti-theft code is first entered.

With the radio off, press buttons **1**, **5** and **ON** simultaneously.

This mode allows users to choose the preferred type of tuner.

The tuner choices are Europe, United States, Asia, or Arabia.

Exit the mode to confirm the configuration using the ON/OFF button.

Note:
By default, the mode is configured to the Europe tuner.

Note:
These configurations are not required when the secret code is entered after the power supply has been cut.

SETTINGS

To adjust the various parameters:

Press the menu button:

- activation of the **AF mode** (automatic resetting, also called RDS)

Press the AUD button:

- activation of **Loudness** mode,
- **bass, treble, balance, and fader** adjustments.

The radio self-test modes are used to check certain basic functions by pressing a combination of buttons.

Reception level fault finding

This mode activates fault finding on the radio reception level.

With the radio off, press buttons **3**, **6**, and **ON** simultaneously.

After entering into this mode, the display indicates:
– first three digits: the frequency level 0 to 256 (256 being the highest reception level and 55 the lowest acceptable level),

– last five digits: the tuner frequency.

The pre-code is recovered by removing the radio and noting the four characters on the barcode that follow the letter **T** (see photo below).

0000001134

There are three ways to recover the radio code (4 digits):

1 – Only the VIN is available: connect to code management on Renault.Net and enter the VIN. The code server gives the original radio code entered in the World Vehicle Database (BVM).

If the code has not been entered in the BVM or is incorrect when the code is entered in the radio, follow the procedure below:

2 – The pre-code is available: go back to code management on Renault.net and enter the pre-code to obtain the radio code.

If this code is correct, the radio will operate again; if not, follow the procedure below:

3 – On Renault.Net, write a help message to be sent to the assistance unit.

WHEN REPLACING PARTS, OR FOR AN UNKNOWN VIN, WRITE A HELP MESSAGE IN CODE MANAGEMENT ON RENAULT.NET TO UPDATE THE DATABASE.

The radio is protected by a four digit code. This code must be entered using the radio keypad every time the battery is disconnected:

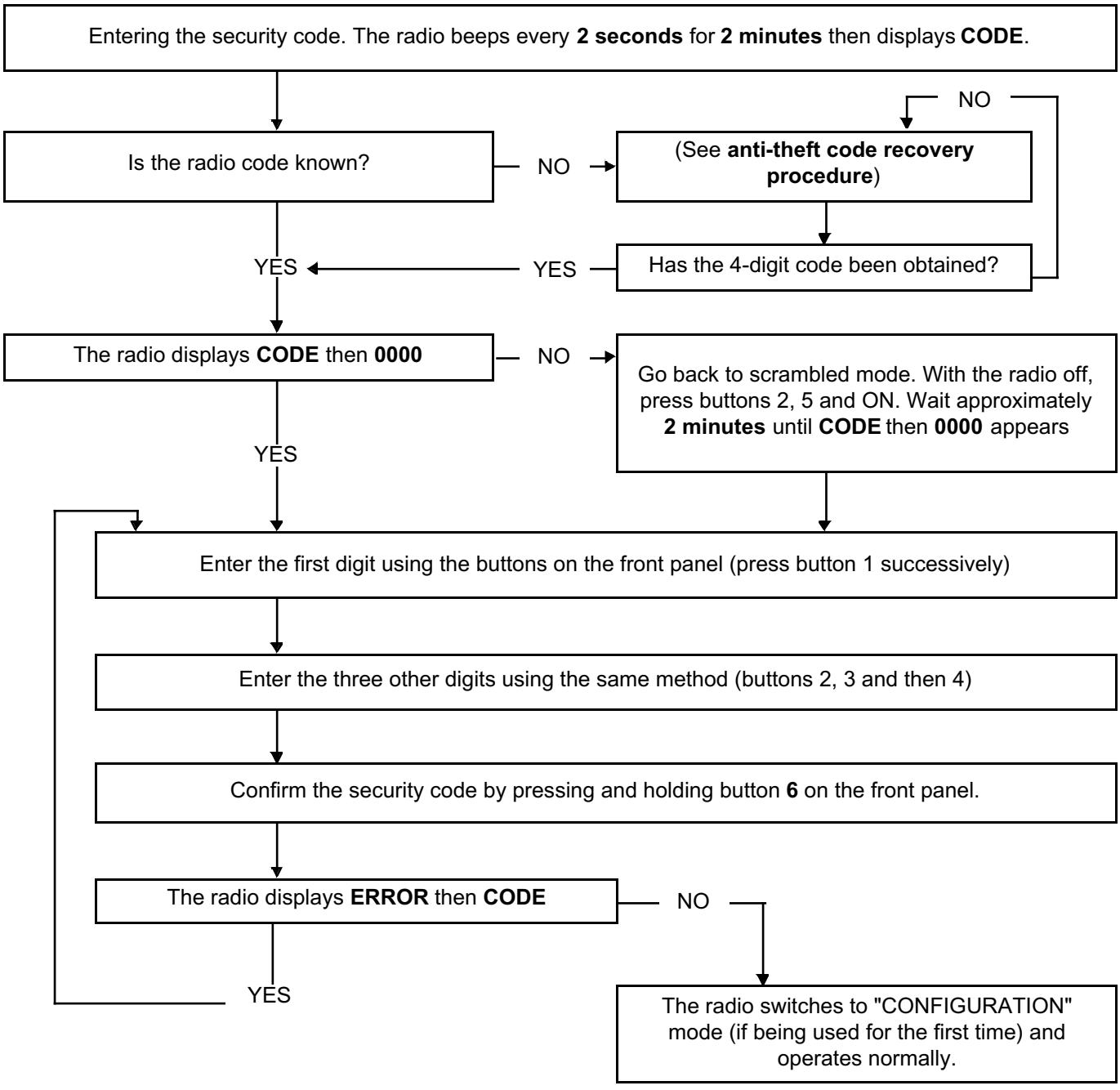
Enter the digits using buttons 1, 2, 3 and 4, and then confirm with button 6.

If the code is entered incorrectly, the radio will be locked (**1 minute** for the first error, **2 minutes** for the second error, **4 minutes** for the third error, etc., for a maximum of **32 minutes after each attempt**).
After several attempts, if the fault is still present, contact Techline.

Some configurations must be programmed after the code has been entered for the first time (see **Configuration - Parameters**).These settings are stored when the battery is disconnected.

Reminder:
The radio will operate for approximately **2 minutes** in scrambled mode without the code having been entered (with regular warning beeps).

THE DISPLAY SHOWS "CODE" OR "0000"



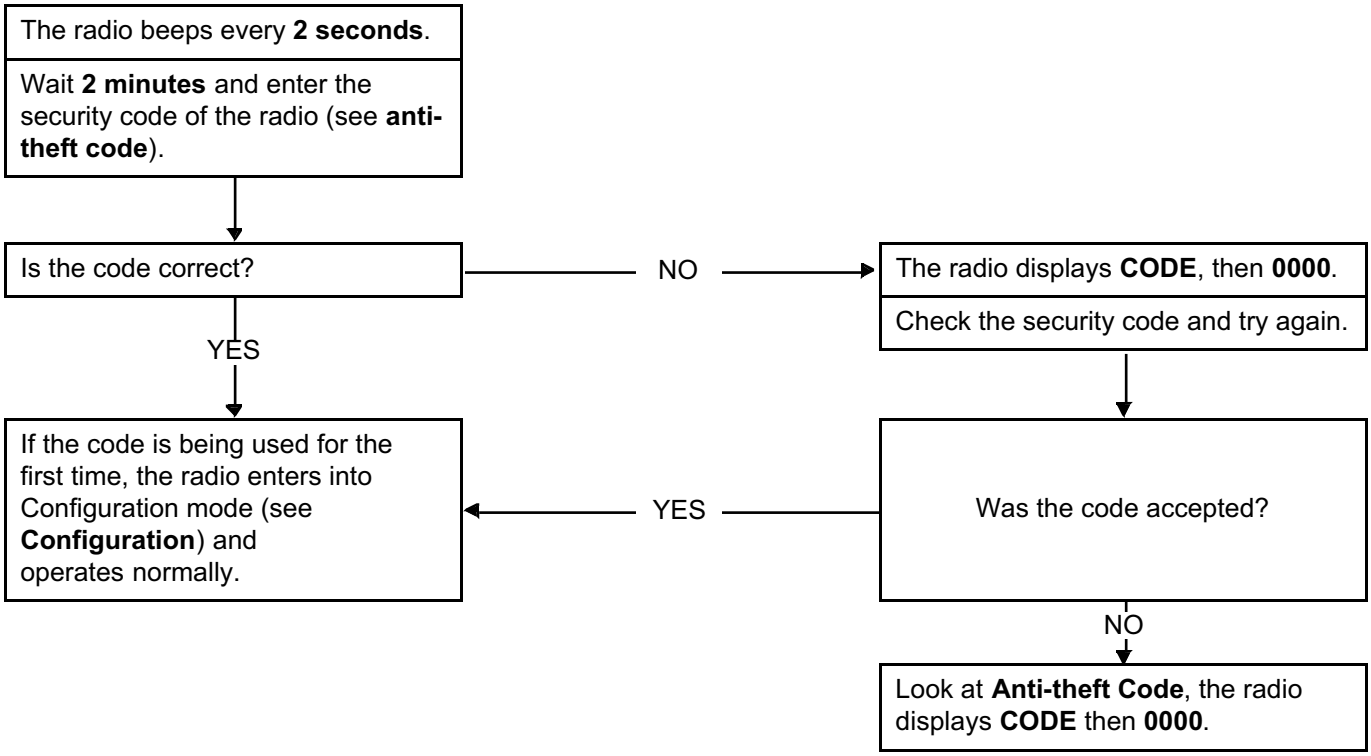
THE CD DOES NOT EJECT FROM THE PLAYER	ALP 1
THE RADIO BEEPS EVERY 2 SECONDS	ALP 2
THE RADIO DOES NOT OPERATE WHEN THE ON BUTTON IS PRESSED	ALP 3
RADIO RECEPTION FAULTS	ALP 4
THE RADIO DOES NOT SWITCH ON AUTOMATICALLY WHEN THE IGNITION IS SWITCHED ON OR GOES OFF AFTER 60 MINUTES	ALP 5
LIGHTING DOES NOT CHANGE WHEN THE VEHICLE LIGHTS ARE SWITCHED ON	ALP 6
THE CD IS PLAYED IN RANDOM MODE	ALP 7
THE SATELLITE CONTROL DOES NOT WORK	ALP 8
THE RADIO DOES NOT RECEIVE ALL STATIONS	ALP 9
THE MINI JACK DOES NOT WORK	ALP 10

ALP 1	The CD does not eject from the player

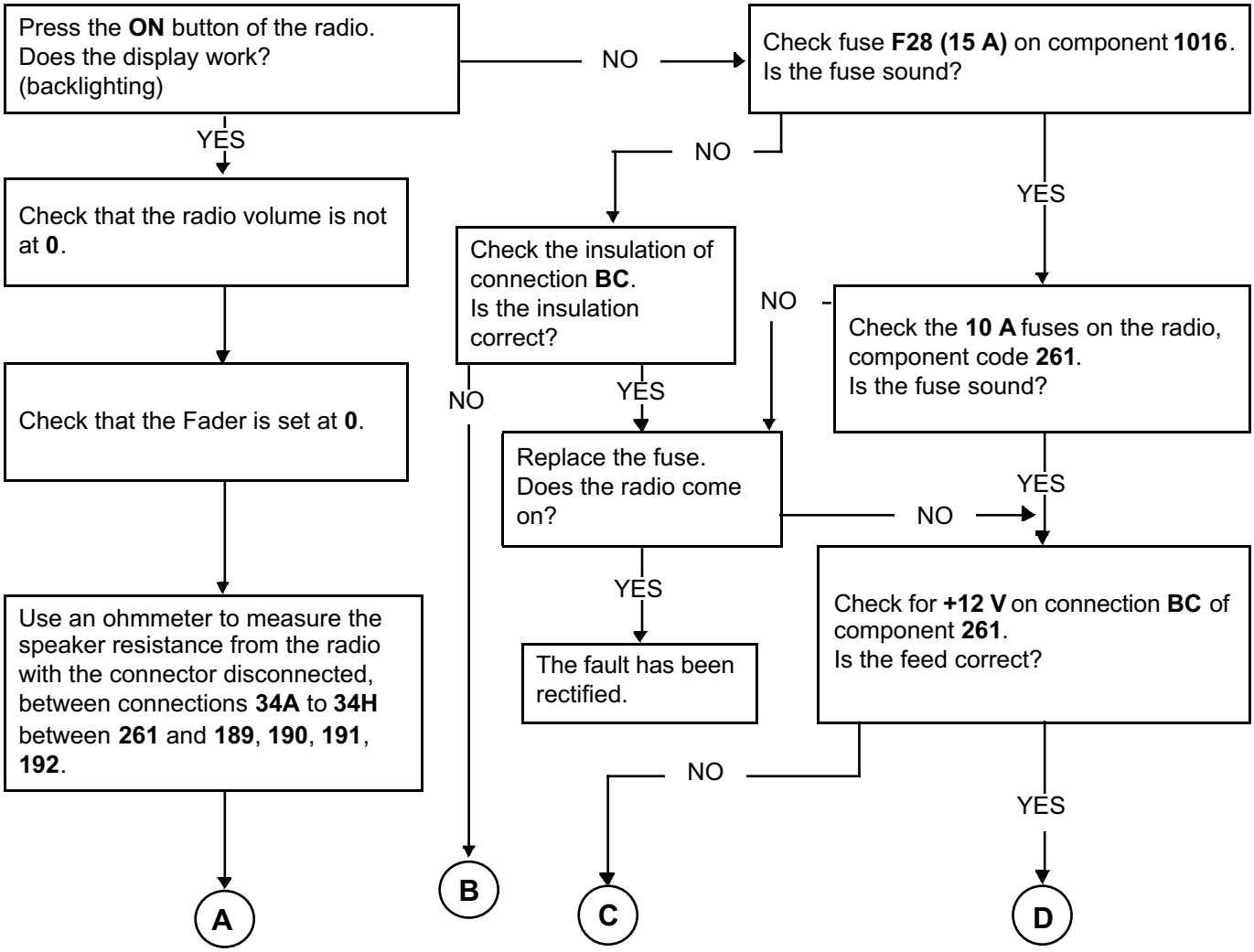
NOTES	There is no manual procedure for ejecting a CD if it is stuck in the player.

The CD does not eject from the player.
Disconnect and reconnect the battery (**see MR 451, Mechanical, 80A Battery, Battery: Removal - Refitting**).
Try again to eject the CD by pressing the radio button.
If the fault is still present, replace the radio (see **MR 451, Mechanical, 86A Radio, Radio: Removal - Refitting**).

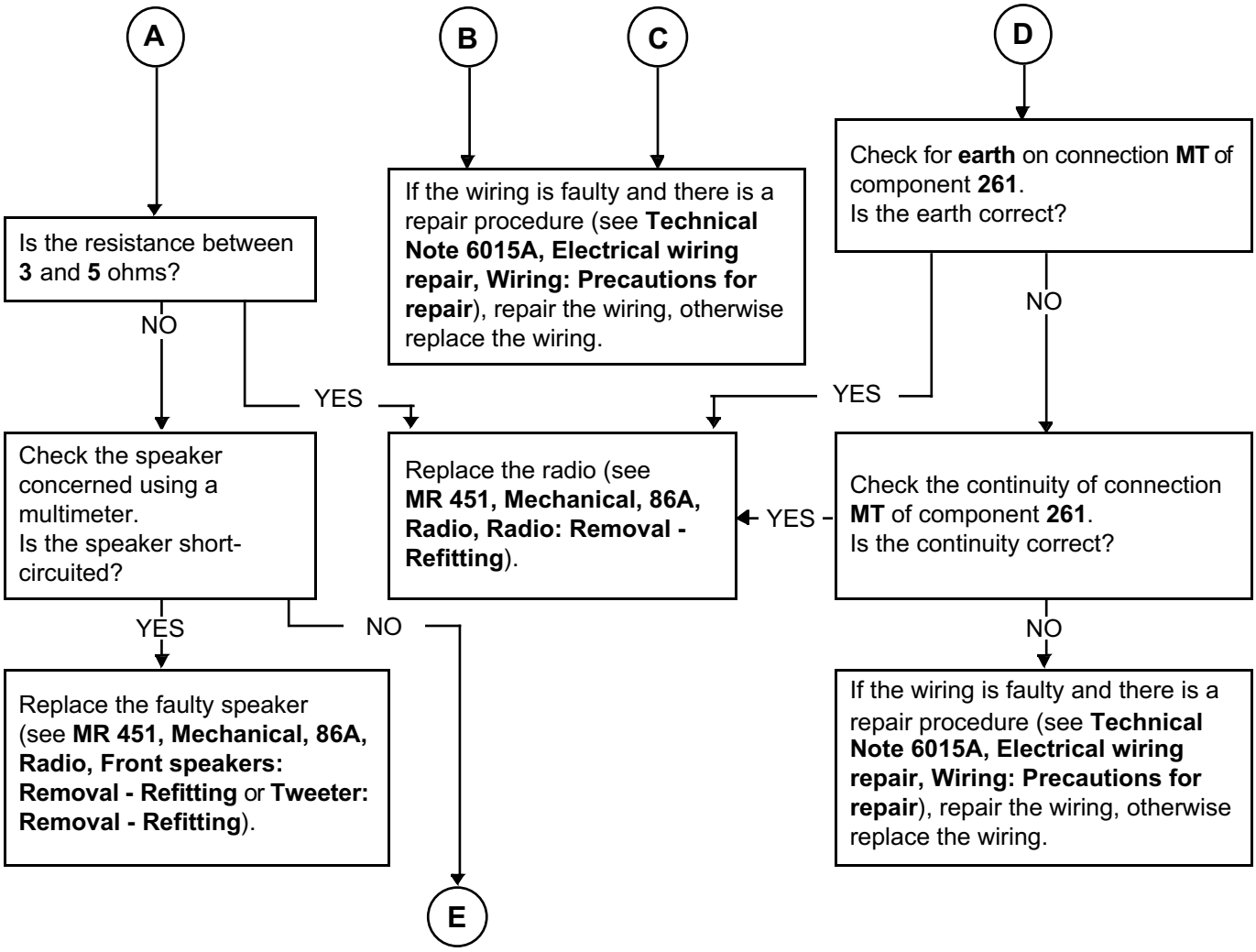
ALP 2	The radio beeps every 2 seconds



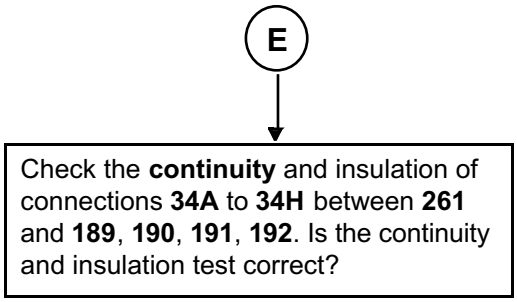
ALP 3	The radio does not operate when the ON button is pressed



ALP 3 CONTINUED 1

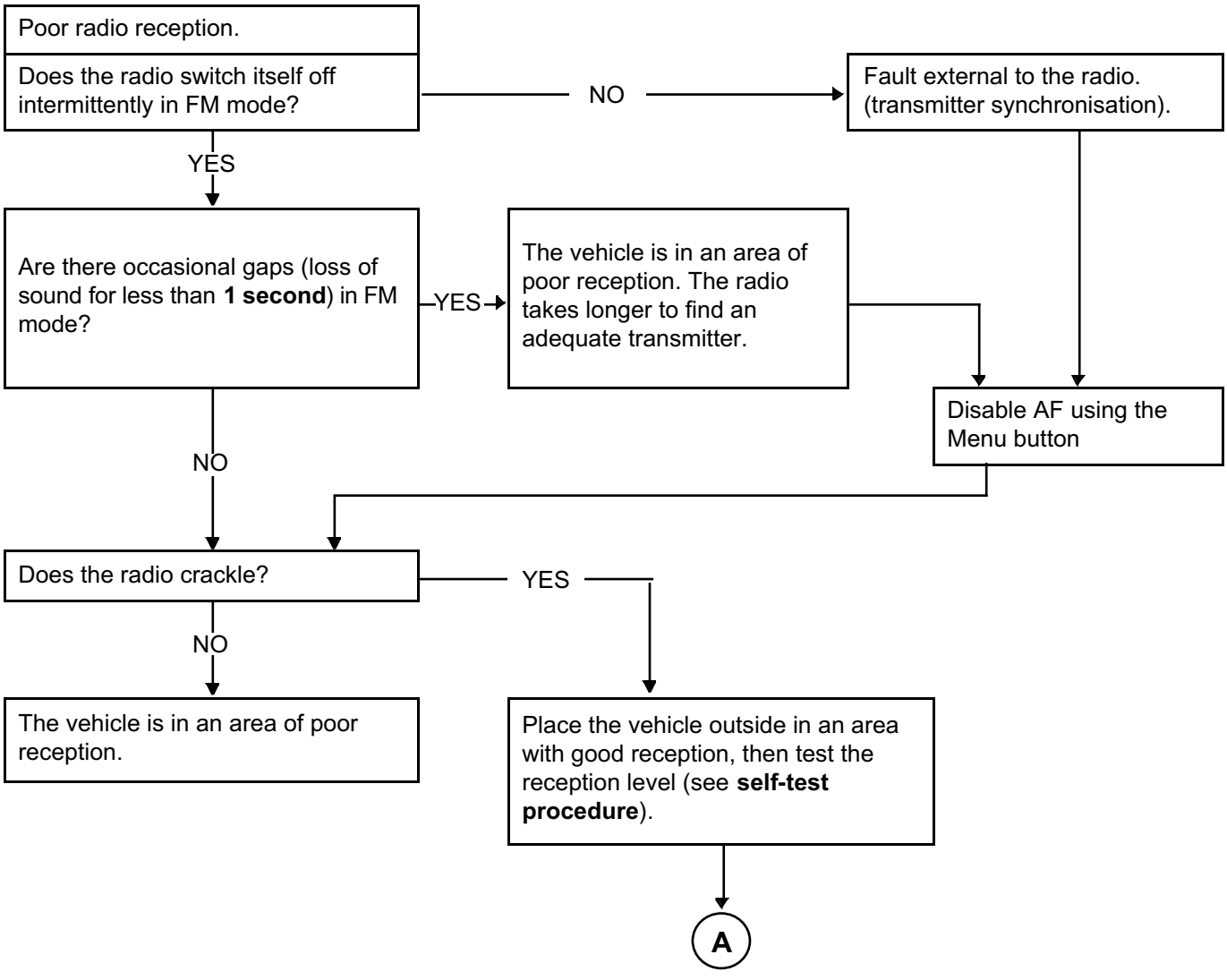


ALP 3 CONTINUED 2	

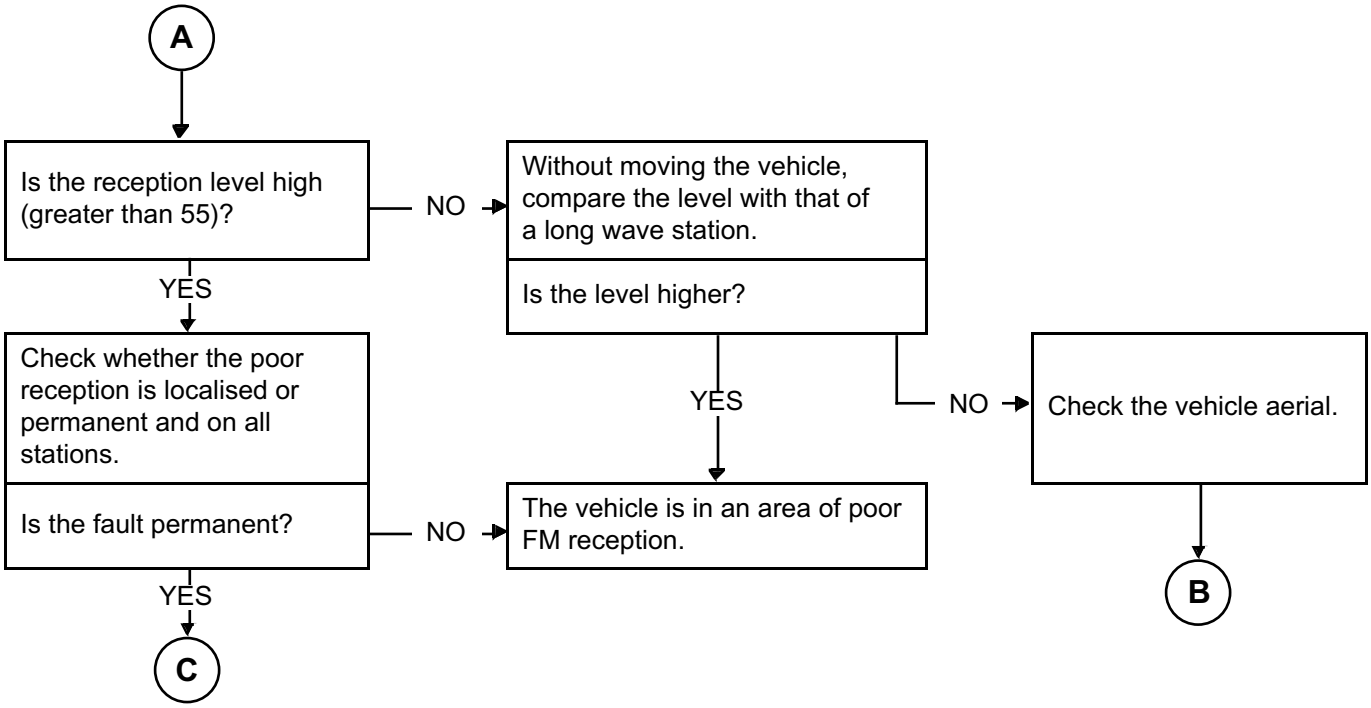


ALP 4	Radio reception faults

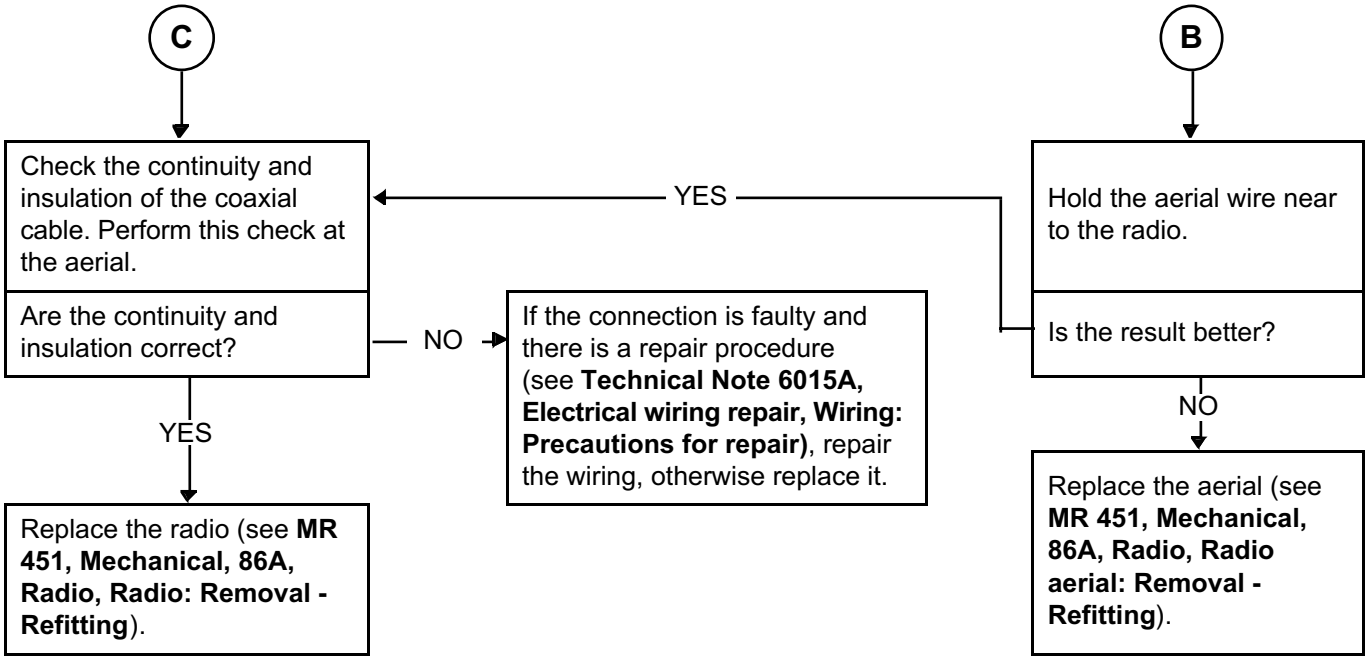
NOTES	Run the self-test procedure of the aerial (see **Self-test procedure**) before running this ALP.



ALP 4 CONTINUED 1



ALP 4 CONTINUED 2



ALP 5	The radio does not switch on automatically when the ignition is switched on or goes off after 60 minutes

Check that the system is operating correctly:
– Switch to **+ accessories feed**,
– Switch on the radio,
– Cut the **+ accessories feed**; the radio should switch off,
– Restore the **+ accessories feed**; the radio should switch on.

Has the fault disappeared?

YES → End

NO

Check the **+ accessories feed** using a multimeter.

With the ignition on, is there a voltage of approximately **12 V** on connection **SP2** of component **261**?

NO → Check the supply fuses **F38 (15A)** on component **1016**.

Are the fuses correct?

NO → Replace the fuse on component **1016**.

YES

YES → Replace the radio (see **MR 451, Mechanical, 86A, Radio, Radio: Removal - Refitting**).

ALP 6	Lighting does not change when the vehicle lights are switched on

The radio lighting does not change when the vehicle lights are switched on.

With the lights on, is there a voltage of approximately **12 V** on connection **LPD for left-hand drive or LPG for right-hand drive** of component **261**?

YES → Replace the radio (see **MR 451, Mechanical, 86A, Radio, Radio: Removal - Refitting**).

NO ↓

The fault is not associated with the audio equipment. Check the **continuity** and **insulation** of connection **LPD for left-hand drive or LPG for right-hand drive** between components **261** and **1016**.

Is the result of the check correct?

YES → Replace the radio (see **MR 451, Mechanical, 86A, Radio, Radio: Removal - Refitting**).

NO ↓

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.

ALP 7	The CD is played in random mode

The radio plays the CD, but in a random manner.

When playing an audio track, does the CD "jump"?

YES → Check that the CD is in good condition.

NO ↓

Is the CD player configured for random CD playing?

NO → Replace the radio (see **MR 451, Mechanical, 86A, Radio, Radio: Removal - Refitting**).

YES ↓

Reconfigure the CD player for continuous play (see driver's handbook).

ALP 8	The satellite control does not work

The radio works, but the satellite control does not.

Is the satellite control correctly connected?

NO → Reconnect the satellite control and check that the system operates correctly.

YES

Check the resistances of the satellite control using a multimeter by running **Test 1 Resistance check of the radio satellite control**.

Are the resistances correct?

NO → Replace the satellite control (see **MR 451, Mechanical, 86A Radio, Radio control satellite: Removal - Refitting**).

YES

Check the continuity and insulation of the wiring.

Is the check correct?

NO → Replace the satellite control (see **MR 451, Mechanical, 86A Radio, Radio control satellite: Removal - Refitting**).

YES

Replace the radio (see **MR 451, Mechanical, 86A, Radio, Radio: Removal - Refitting**).

ALP 9	The radio does not receive all stations

The radio works but does not receive all stations.

↓

Check that the radio tuner is correctly configured.

↓

Is the tuner operating area correctly configured? — NO → Reconfigure the radio tuner (see **Configuration – settings**).

YES ↓

Are the stations recognised? — NO → See **ALP 4 Radio reception faults**

YES ↓

The fault has been rectified.

ALP 10	The mini jack does not work

NOTES	Check the correct operation of the mobile device before applying this fault finding chart.

Connect a mobile device to the mini jack on the radio front panel.

Check that the auxiliary source "AUX" becomes available via the radio source menu (press the SRC button).

NO → Try the mobile device with another jack cable.

YES

Check the volume of the mobile device.

Check the radio volume.

Has the fault disappeared?

YES → End

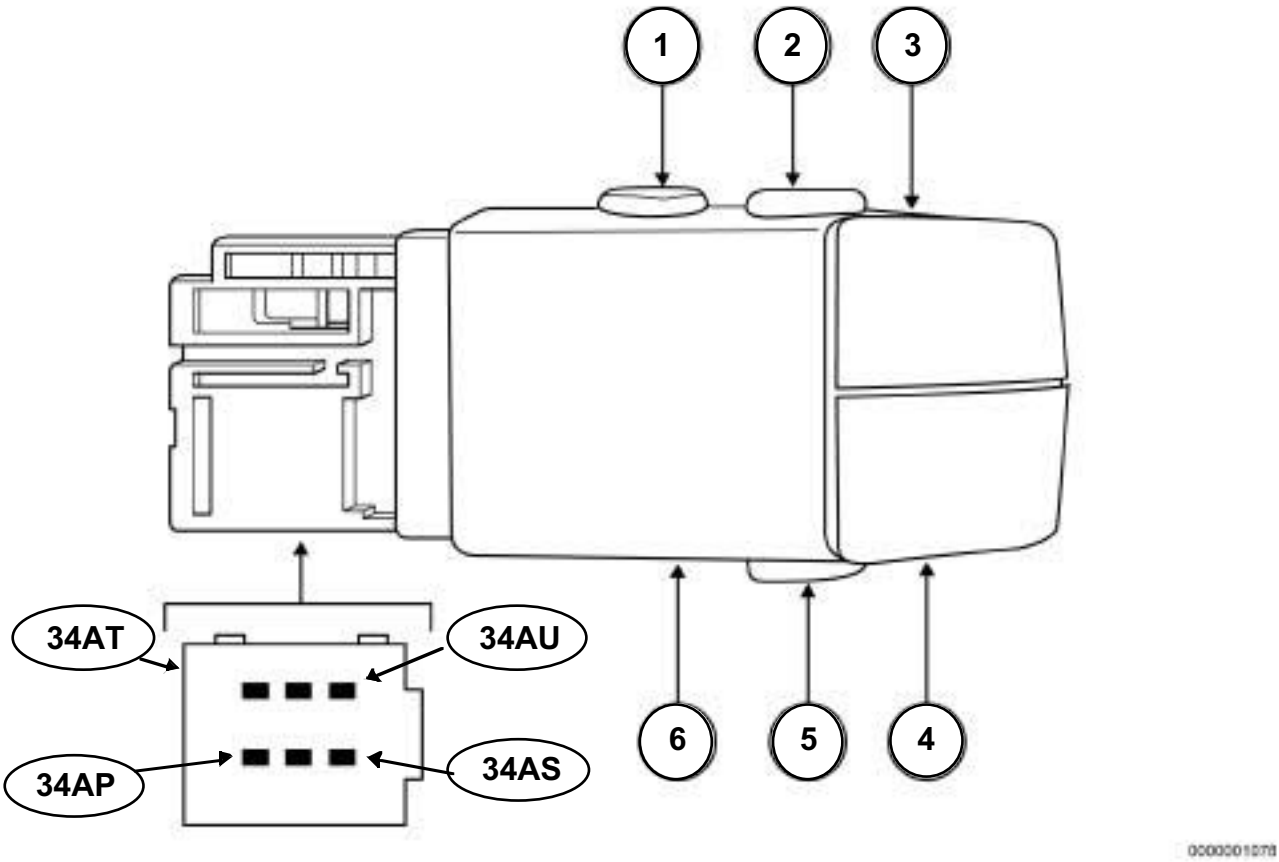
NO

Replace the radio (see **MR 451, Mechanical, 86A, Radio, Radio: Removal - Refitting**).

Resistance check of the radio satellite control	→	TEST 1

TEST 1	Resistance check of the radio satellite control

NOTES	The check is carried out using a multimeter in the ohmmeter position between the tracks of the radio control satellite connector.



TEST 1 CONTINUED	

Radio control satellite in use	Connector tracks	Resistance (Ω)
Lower button (**5**)	between 34AU and 34AP	**< 150**
Decrease volume (**4**)	between 34AS and 34AP	**< 150**
Increase volume (**3**)	between 34AT and 34AP	**< 150**
Upper right button (**2**)	between 34AU and 34AQ	**< 150**
Upper left button (**1**)	between 34AS and 34AQ	**< 150**
Wheel 1st position (**6**)	between 34AU and 34AR	**< 150**
Wheel 2nd position (**6**)	between 34AS and 34AR	**< 150**
Wheel 3rd position (**6**)	between 34AT and 34AR	**< 150**