

TWINGO

8 Electrical equipment

86A RADIO

Introduction	86A - 2
List and location of components	86A - 3
Role of components	86A - 8
Operating diagram	86A - 9
Features	86A - 10
Defect and safe modes	86A - 11
Configuration – Settings	86A - 12
Self-test procedure	86A - 13
Anti-theft code recovery procedure	86A - 14
Anti-theft code	86A - 15
Customer complaints	86A - 17
Fault finding chart	86A - 18
Test	86A - 31

V2

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."

All rights reserved by Renault s.a.s.

Copying or translating, in part or in full, of this document or use of the service part reference numbering system is forbidden without the prior written authority of Renault s.a.s.

© Renault s.a.s. 2009

1. SCOPE OF THIS DOCUMENT

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

Vehicle(s): New Twingo
Function concerned: Radio R0-08

2. PREREQUISITES FOR FAULT FINDING

Documentation type

Fault finding procedures (this manual):

- 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

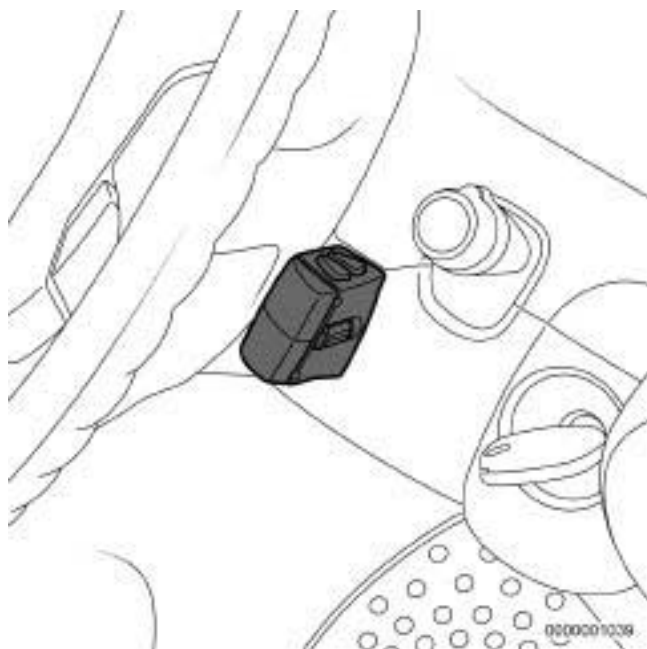
List and location of components

86A

Location of components in the passenger compartment



Steering wheel controls

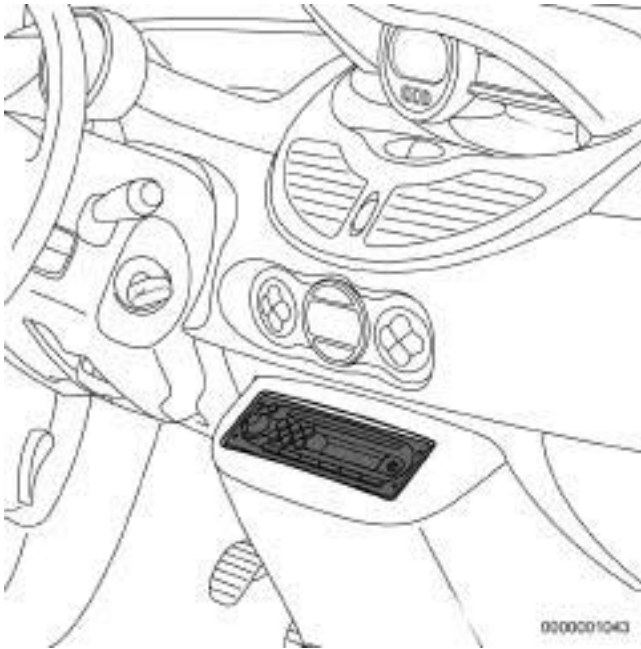


RADIO

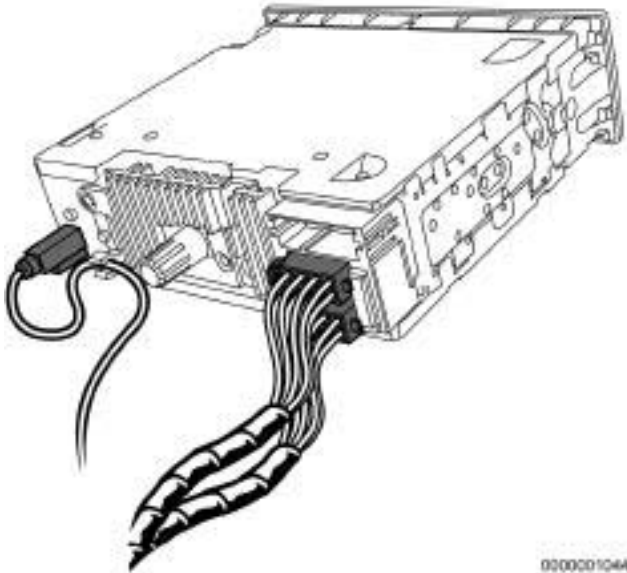
List and location of components

86A

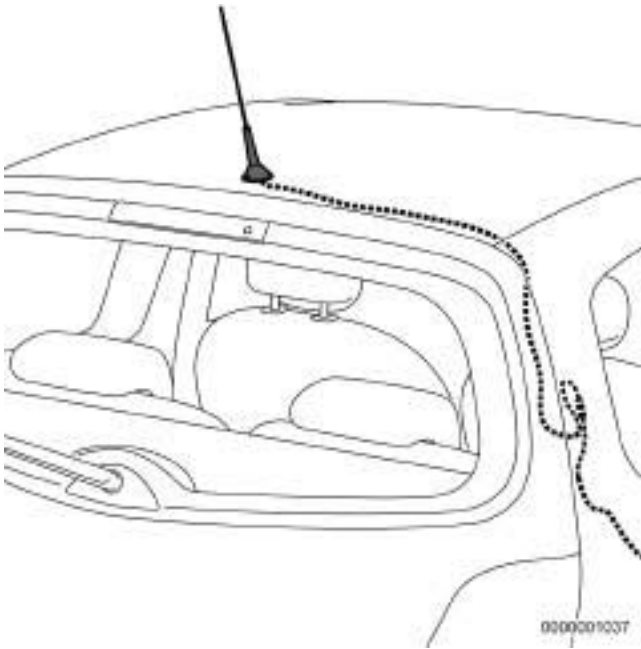
Radio



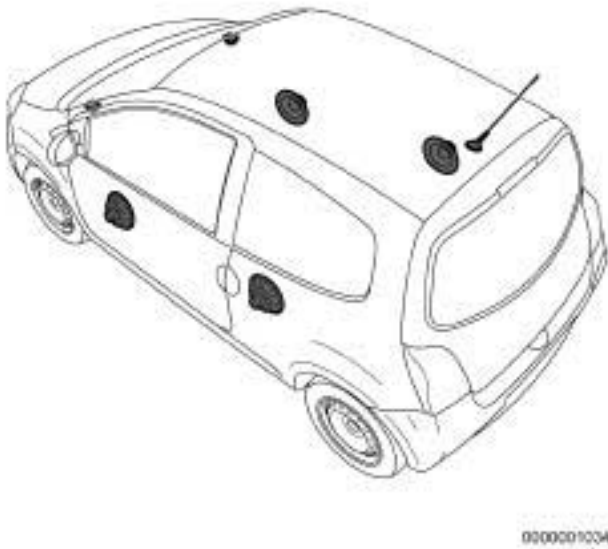
Rear view of the radio



Aerial with amplifier



General location of the speakers and tweeter



RADIO

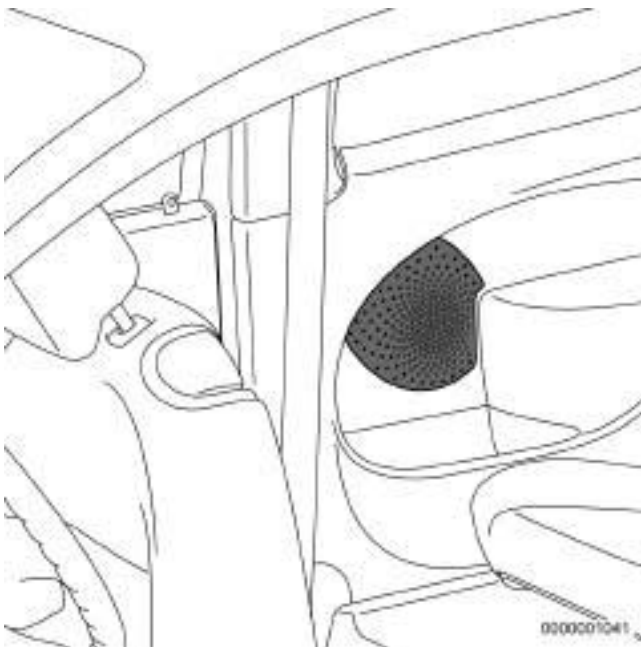
List and location of components

86A

Front left-hand speaker



Rear right-hand speaker



Front left-hand tweeter



RADIO

Role of components

86A

Radio

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

Aerial with amplifier

The aerial receives radio waves from different stations.

The aerial of this vehicle is amplified in order to improve the signal reception.

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)

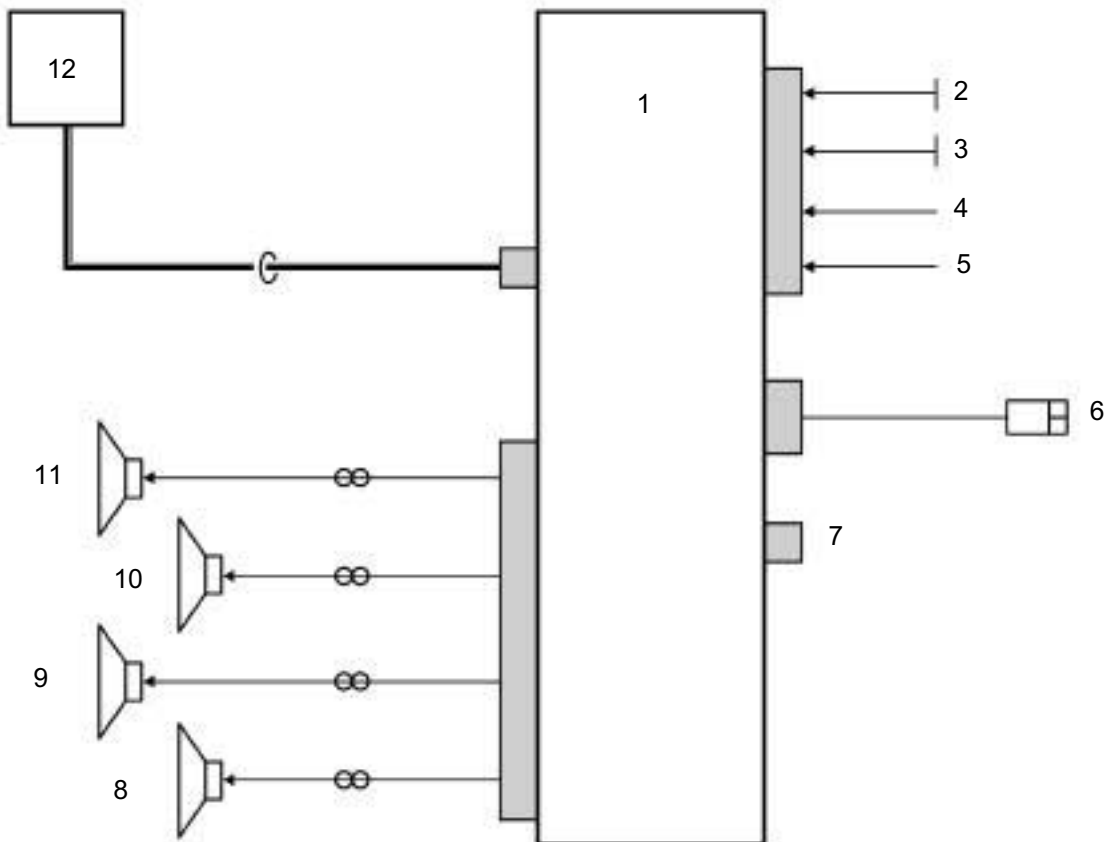
The audio accessories socket on the radio front panel provides connectivity for a mobile device (e.g.: MP3 player, etc.).

RADIO

Operating diagram

86A

Number	Description
1	Radio
2	Permanent supply
3	Earth
4	After ignition supply
5	Lighting signal
6	Satellite control
7	Accessories socket on front panel (mini type jack)
8	Rear right-hand speaker
9	Front right-hand speaker
10	Rear left-hand speaker
11	Front left-hand speaker
12	Aerial with amplifier



000001085

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.

RADIO

Defect and safe modes

86A

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:

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

RADIO

Self-test procedure

86A

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.

Aerial fault finding

This mode activates aerial fault finding to detect a short circuit or an open circuit.

With the radio off, press buttons **3**, **4**, and **ON** simultaneously.

If the aerial has a short circuit or an open circuit fault, the display indicates FAIL. If there is no fault, the display indicates PASS.

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).



000001134

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.

RADIO

Anti-theft code

86A

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., to 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 - settings**). These settings are stored when the battery is disconnected.

Reminder:

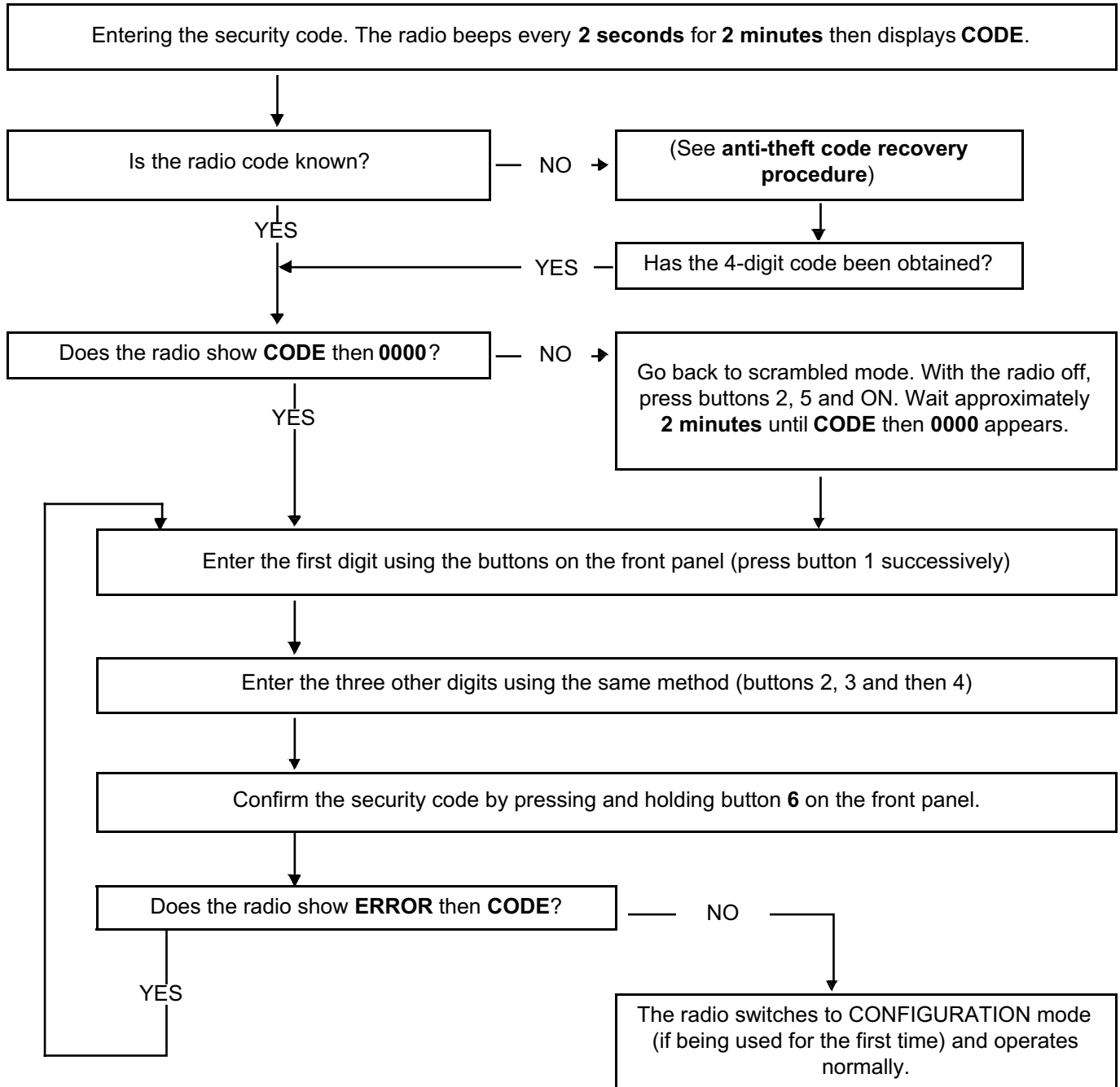
The radio will operate for approximately **2 minutes** in scrambled mode without the code having been entered (with regular warning beeps).

RADIO

Anti-theft code

86A

THE DISPLAY SHOWS "CODE" OR "0000"



RADIO

Customer complaints

86A

THE CD DOES NOT EJECT FROM THE PLAYER	→	ALP1
THE RADIO BEEPS EVERY 2 SECONDS	→	ALP2
THE RADIO DOES NOT OPERATE WHEN THE "ON" BUTTON IS PRESSED	→	ALP3
RADIO RECEPTION FAULTS	→	ALP4
THE RADIO DOES NOT SWITCH ON AUTOMATICALLY WHEN THE IGNITION IS SWITCHED ON OR GOES OFF AFTER 60 MINUTES	→	ALP5
LIGHTING DOES NOT CHANGE WHEN THE VEHICLE LIGHTS ARE SWITCHED ON	→	ALP6
THE CD IS PLAYED IN RANDOM MODE	→	ALP7
THE SATELLITE CONTROL DOES NOT WORK	→	ALP8
THE RADIO DOES NOT RECEIVE ALL STATIONS	→	ALP9
THE MINI JACK DOES NOT WORK	→	ALP10

RADIO
Fault finding chart

86A

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.
--------------	--

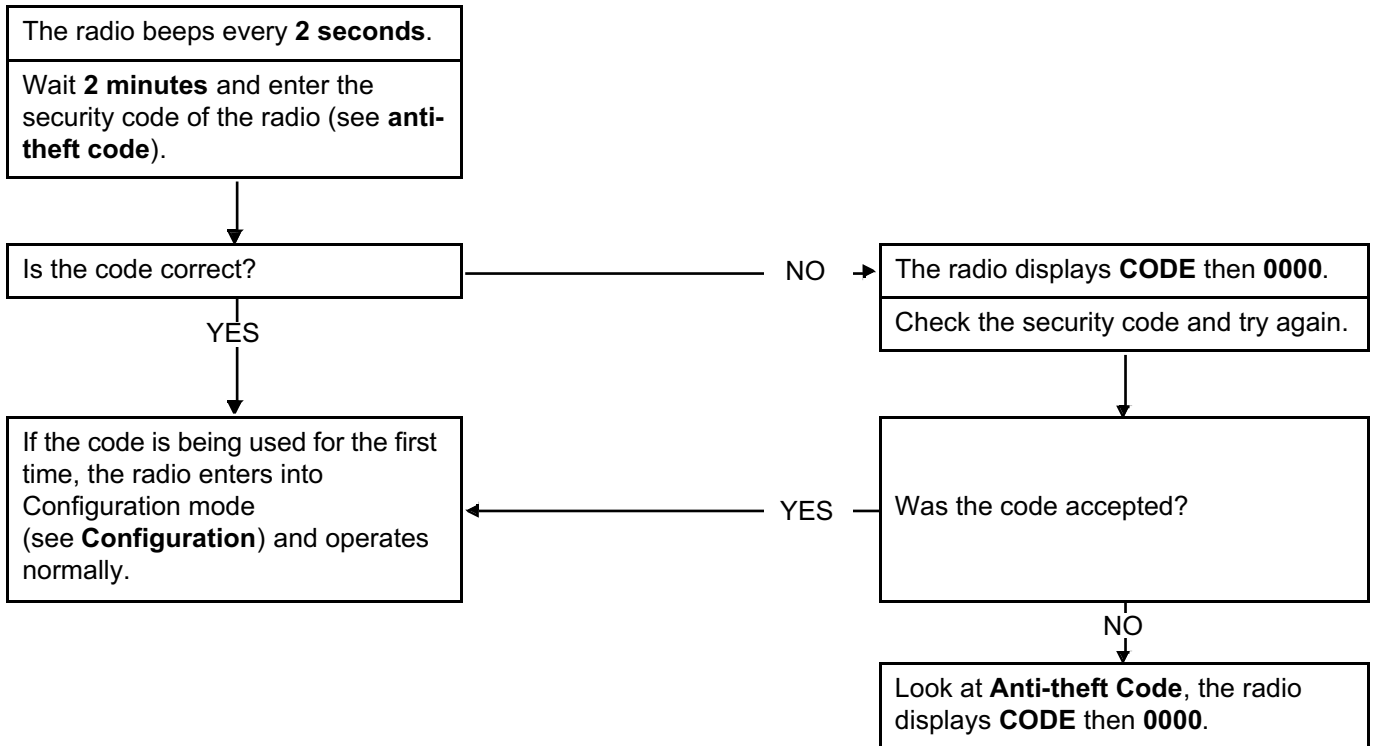
The CD does not eject from the player.
Disconnect and reconnect the battery (see MR 411, Mechanical, 80A Battery, Battery: Removal - Refitting).
Try again to eject the CD while pressing the radio button.
If the fault is still present, replace the radio (see MR 411, Mechanical, 86A Radio, Radio: Removal - Refitting).

RADIO

Fault finding chart

86A

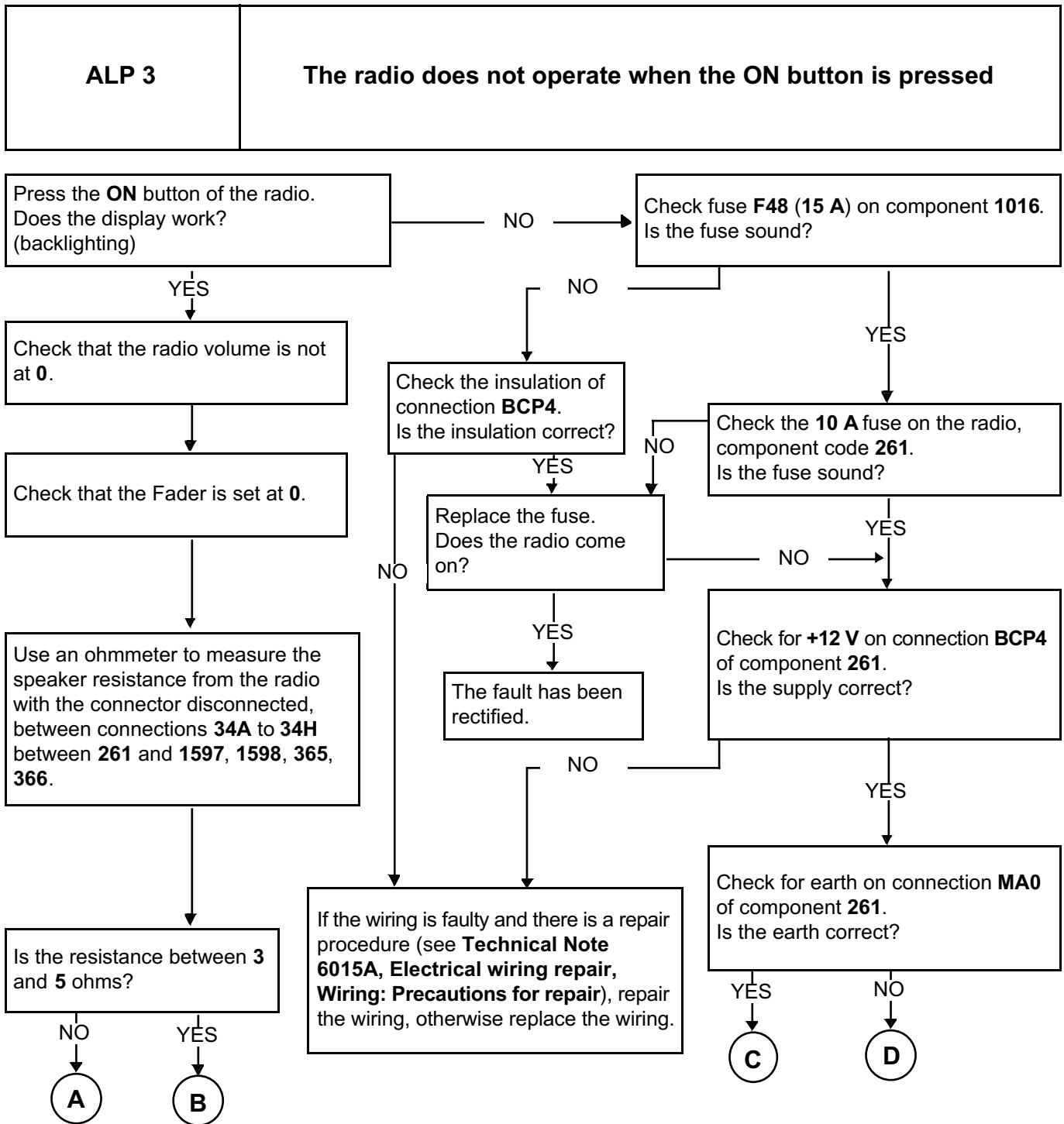
ALP 2	The radio beeps every 2 seconds
--------------	--



RADIO

Fault finding chart

86A

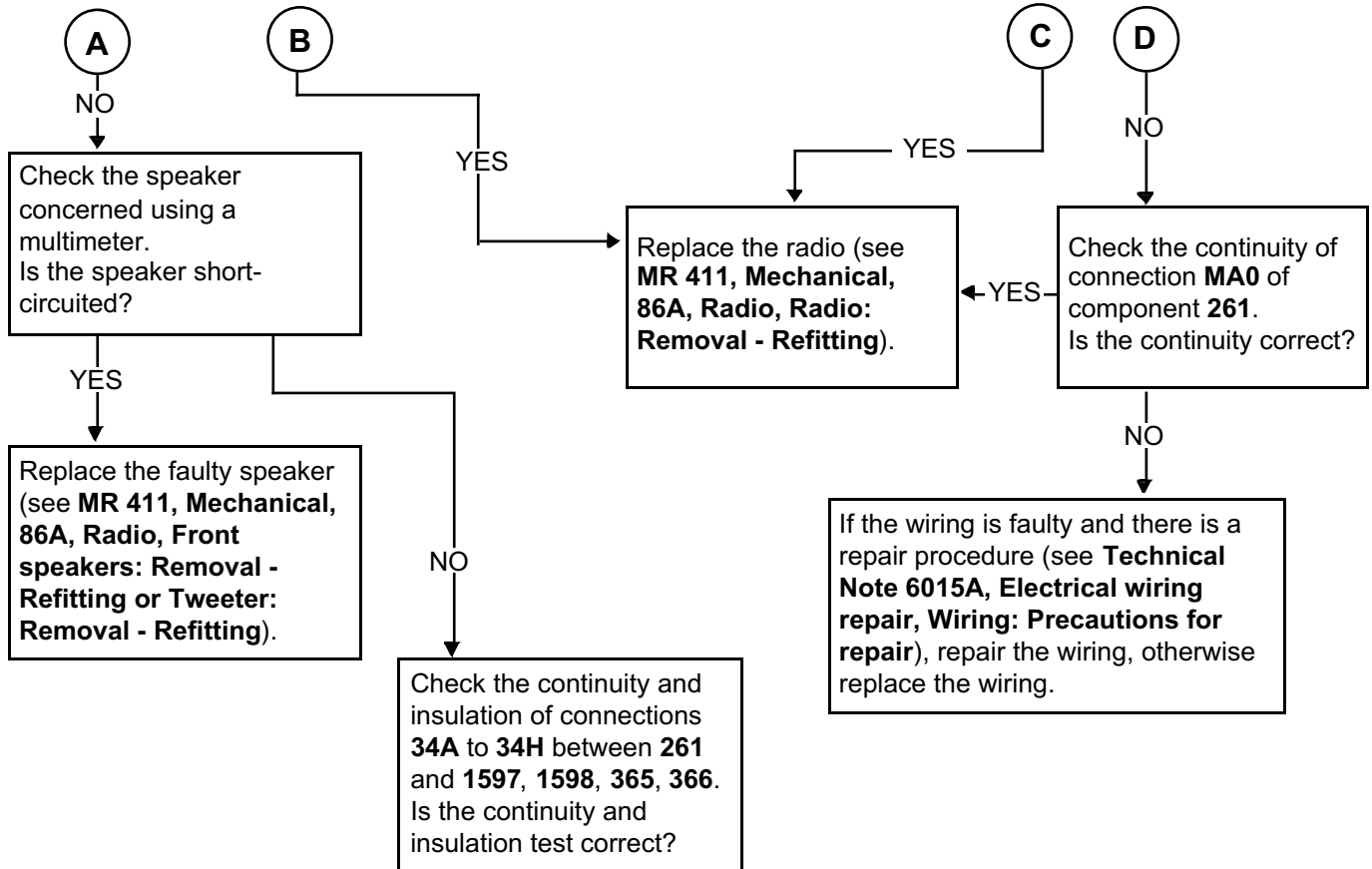


RADIO

Fault finding chart

86A

**ALP 3
CONTINUED**



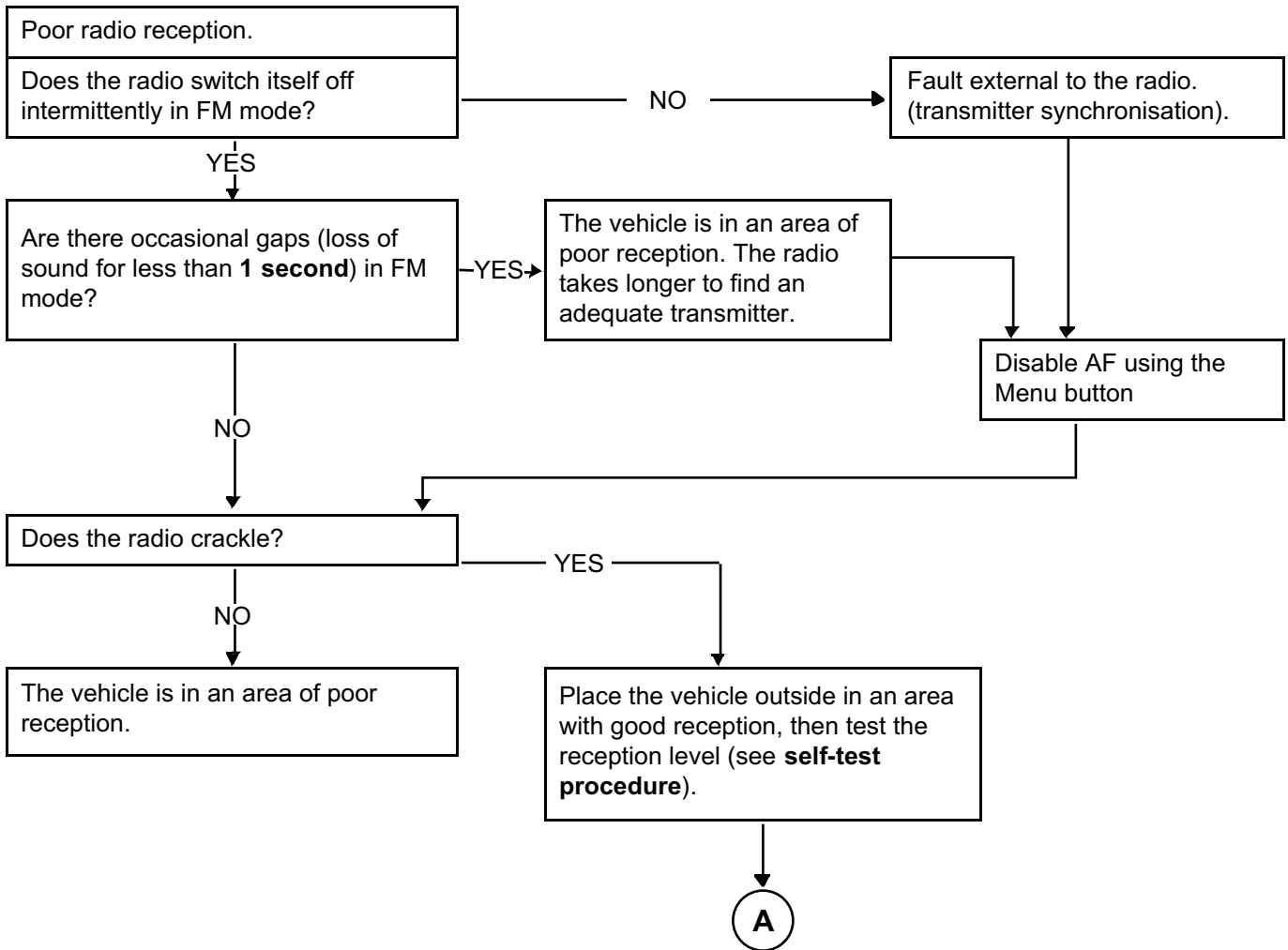
RADIO

Fault finding chart

86A

ALP 4	Radio reception faults
--------------	-------------------------------

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

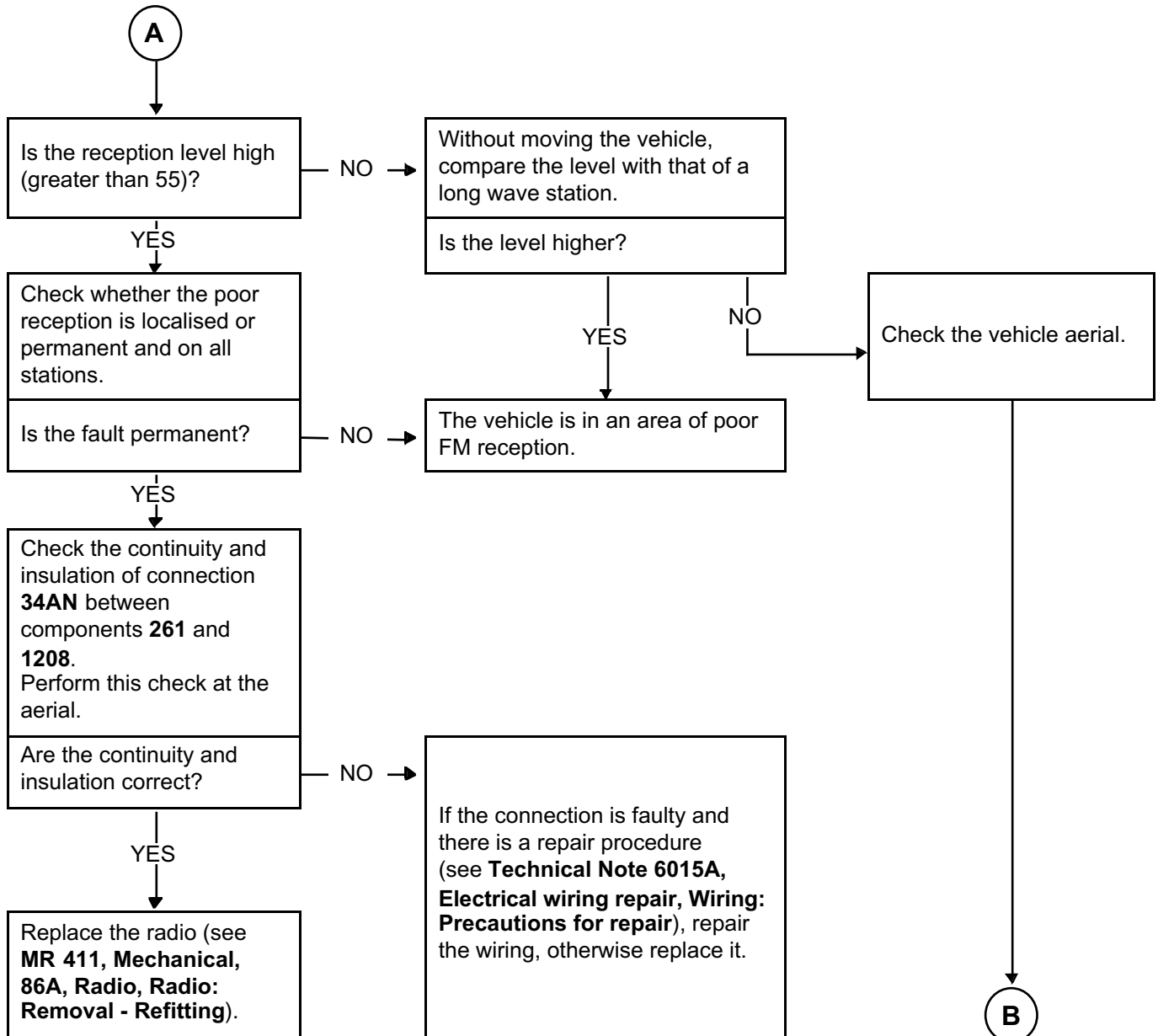


RADIO

Fault finding chart

86A

**ALP 4
CONTINUED 1**

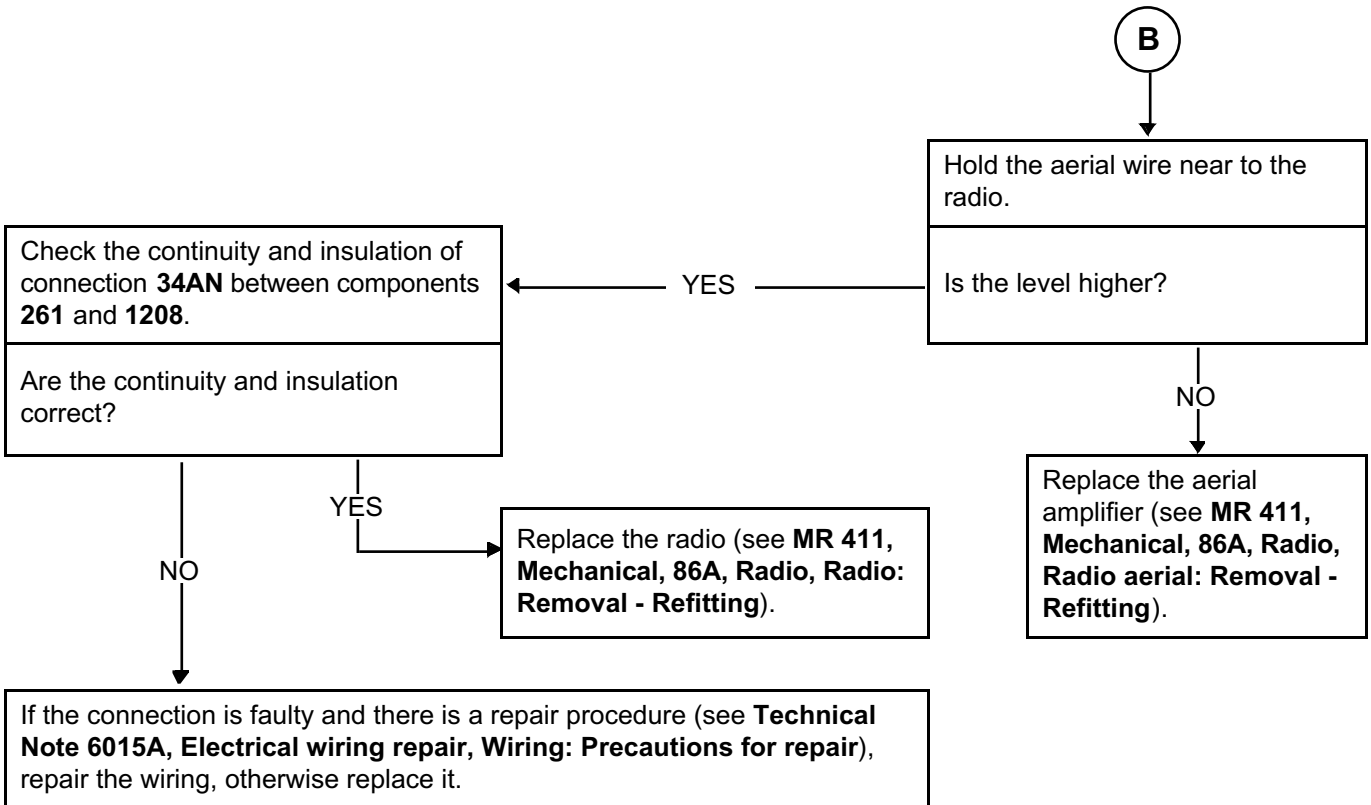


RADIO

Fault finding chart

86A

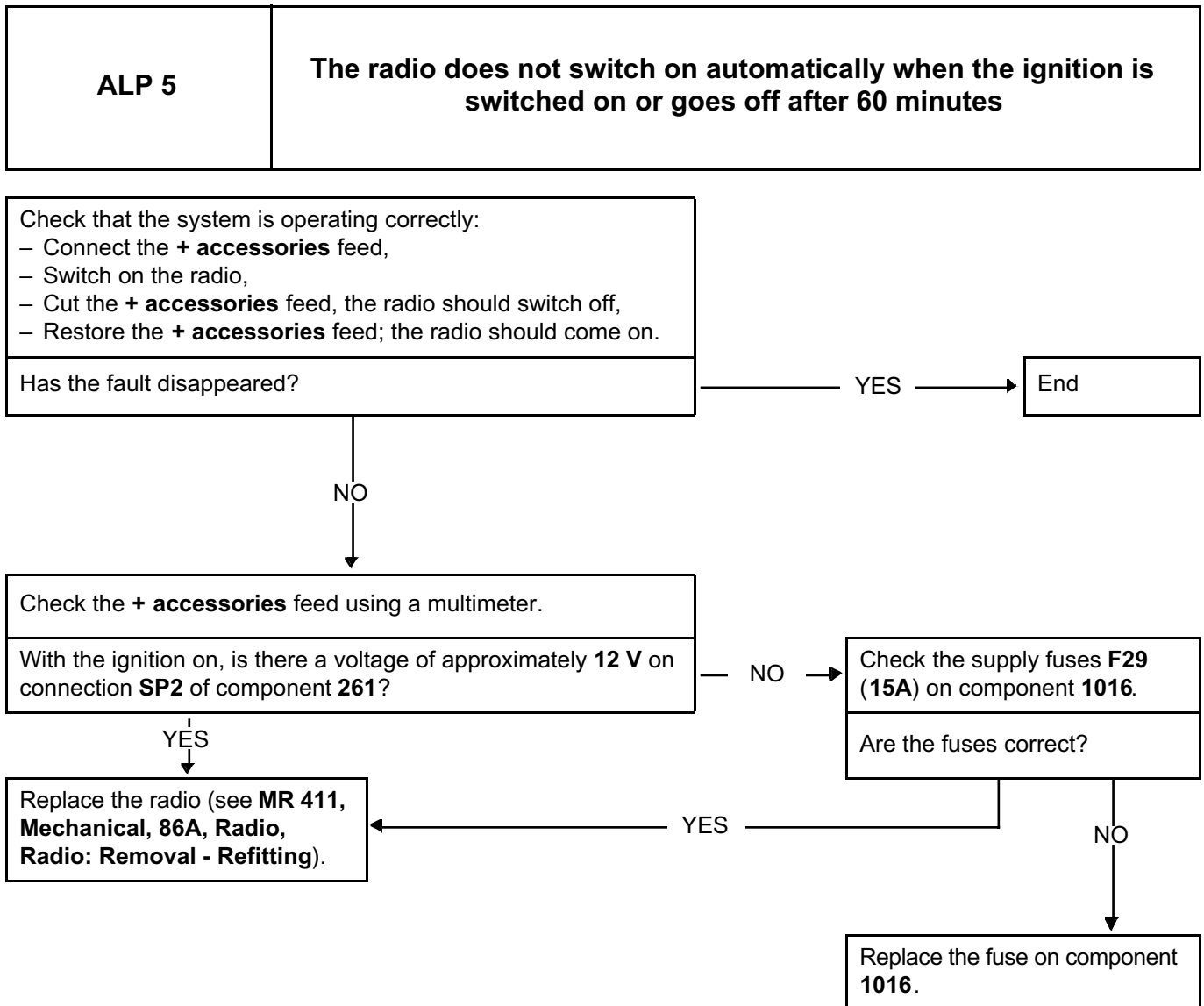
ALP 4 CONTINUED 2	
------------------------------	--



RADIO

Fault finding chart

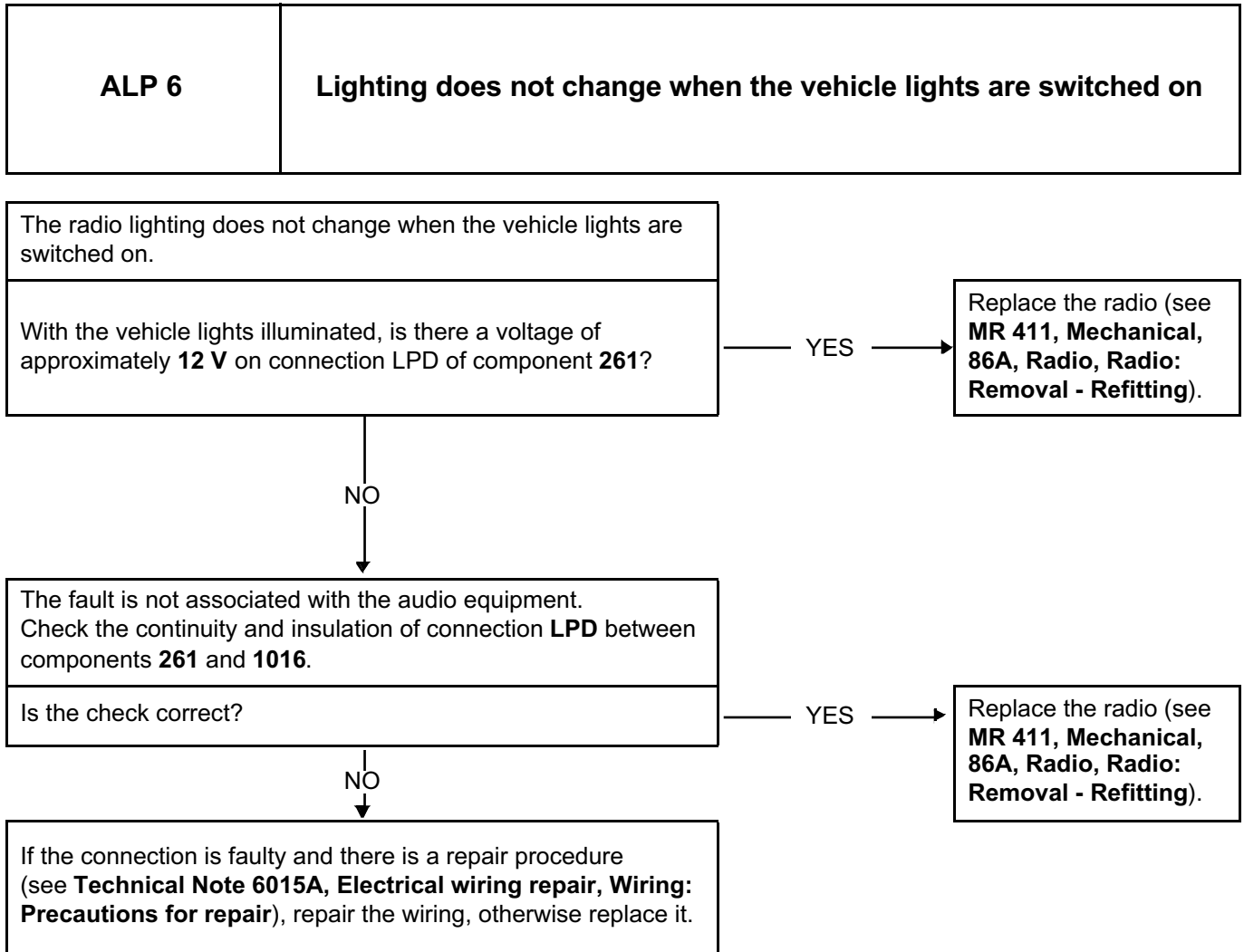
86A



RADIO

Fault finding chart

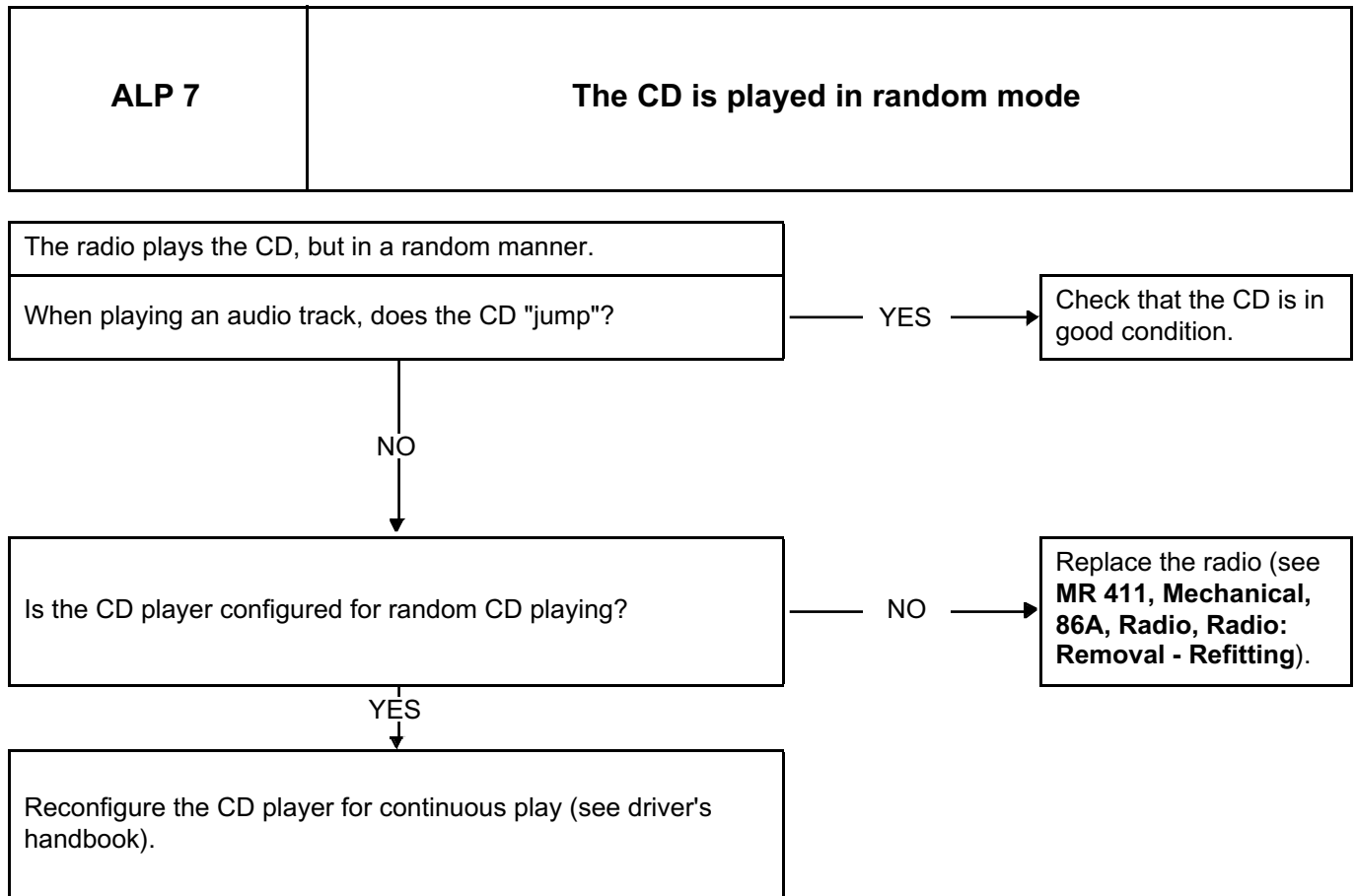
86A



RADIO

Fault finding chart

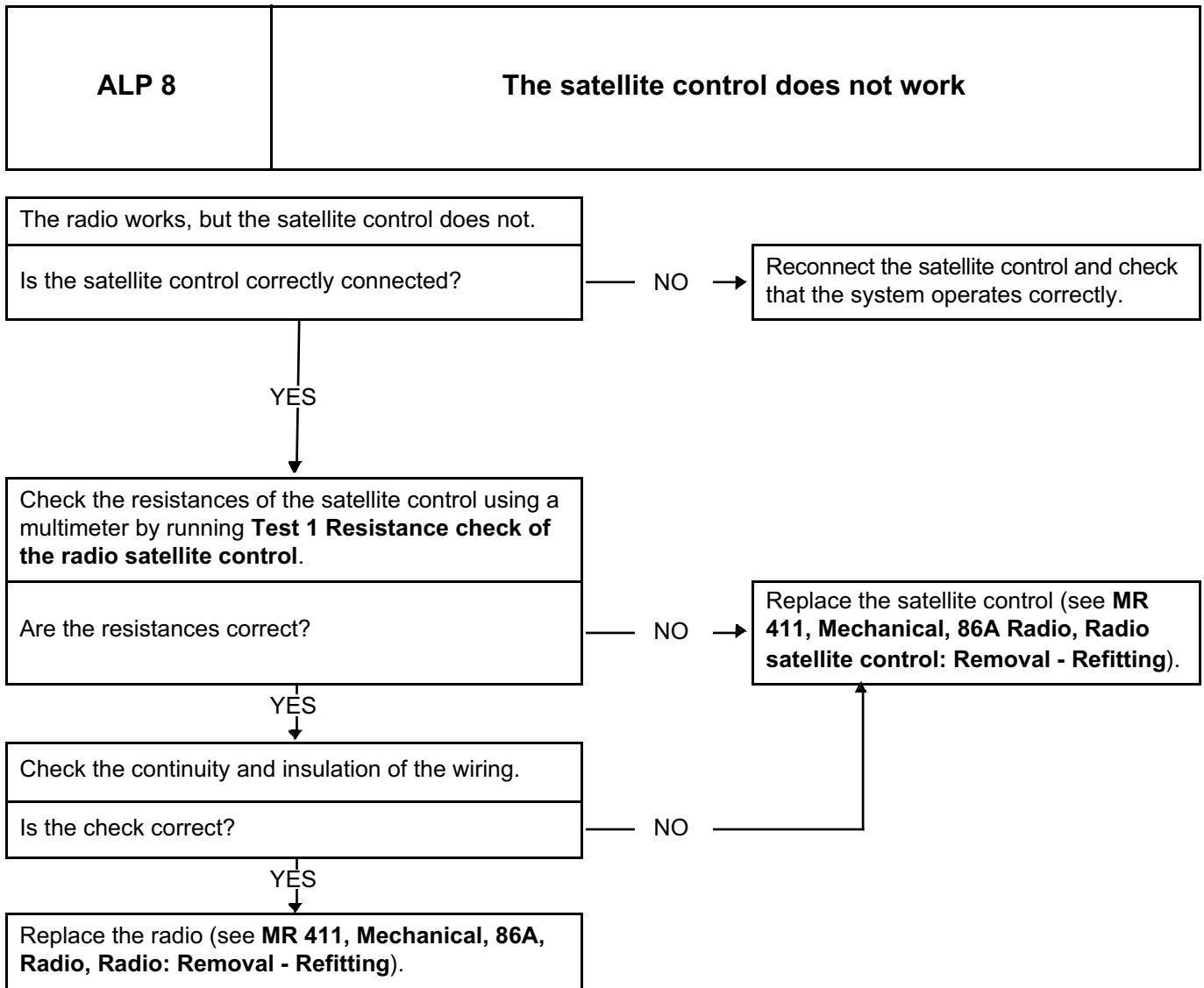
86A

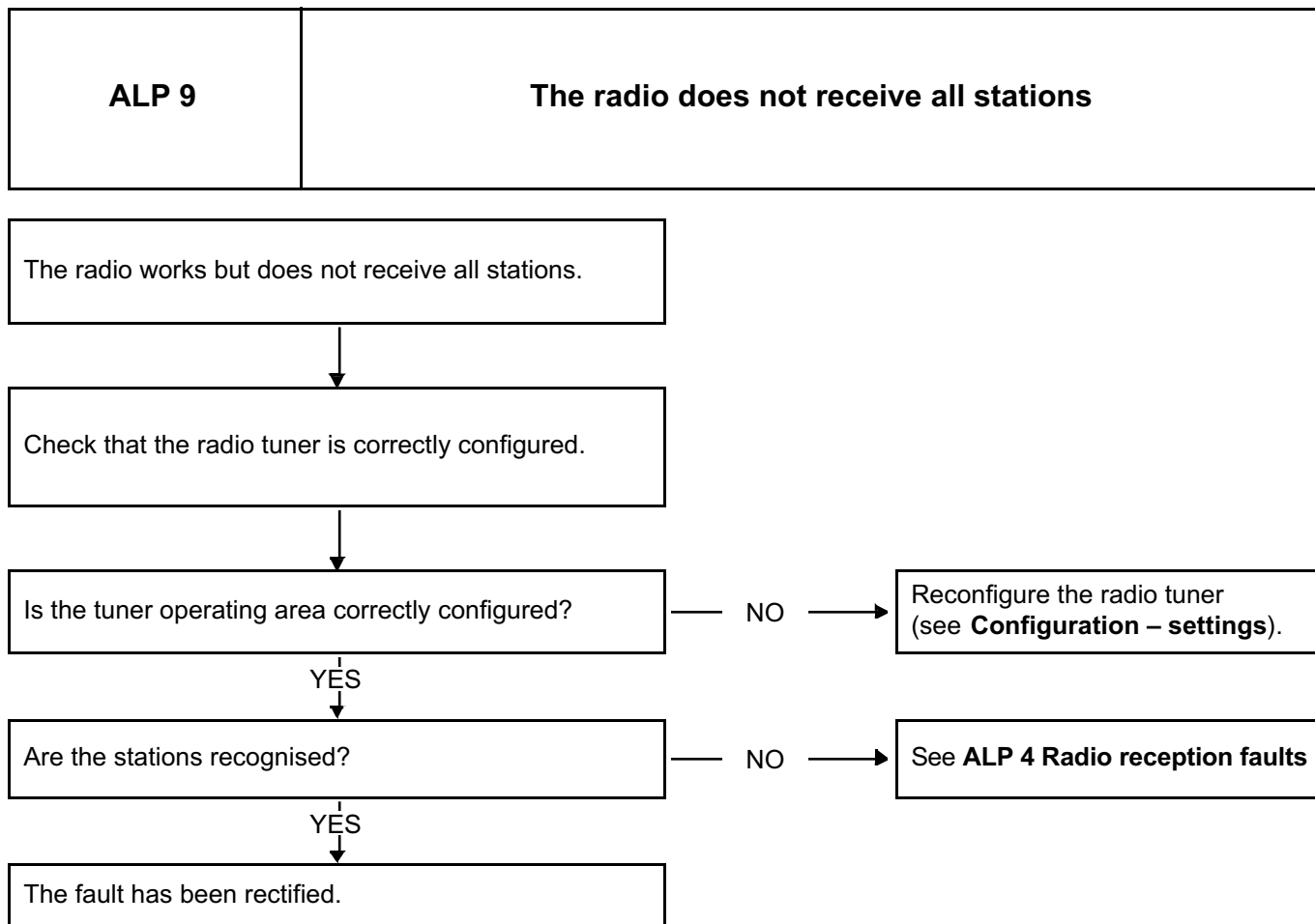


RADIO

Fault finding chart

86A





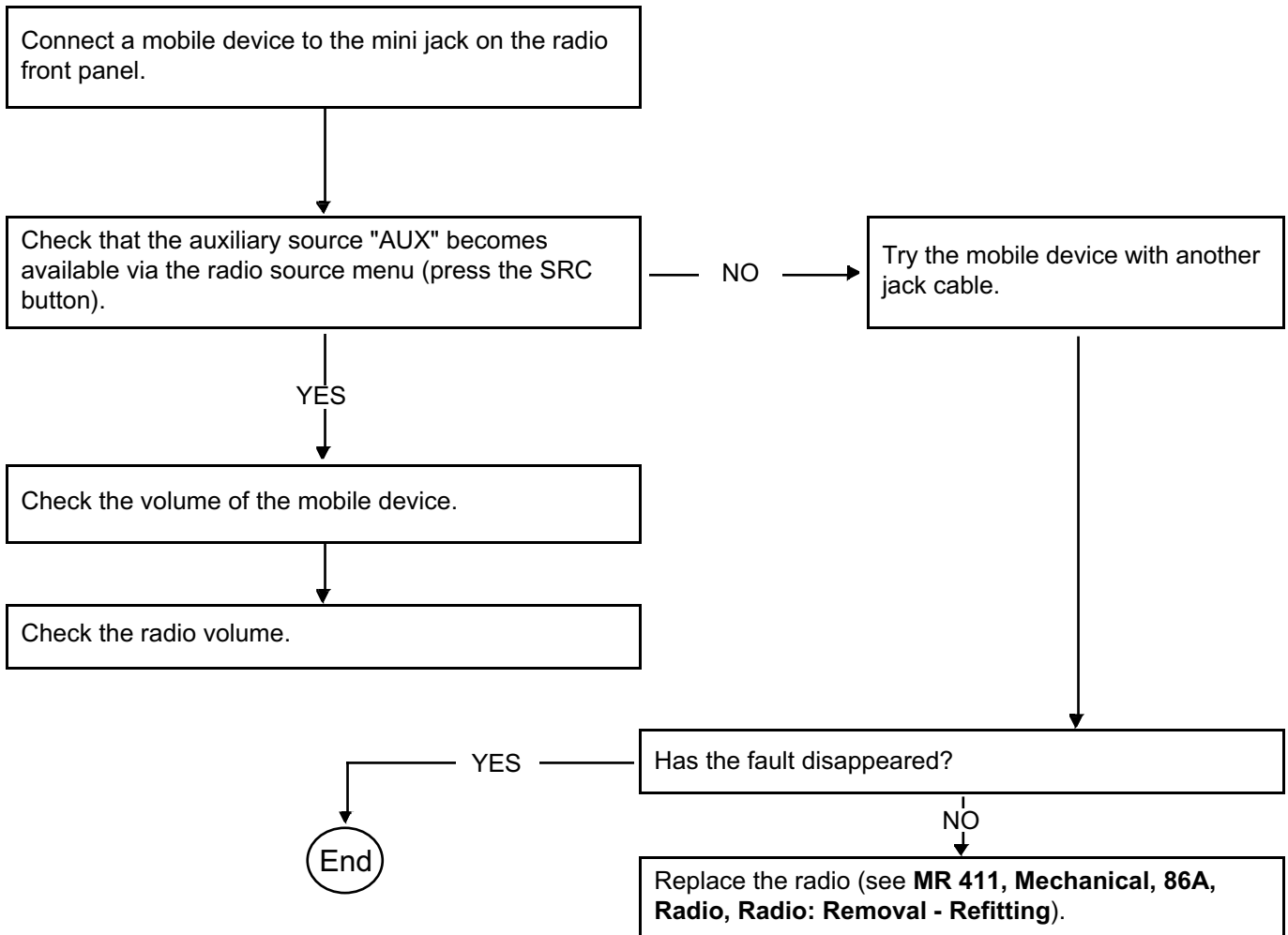
RADIO

Fault finding chart

86A

ALP 10	The mini jack does not work
---------------	------------------------------------

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



RADIO

Test

86A

Resistance check of the radio satellite control

TEST1

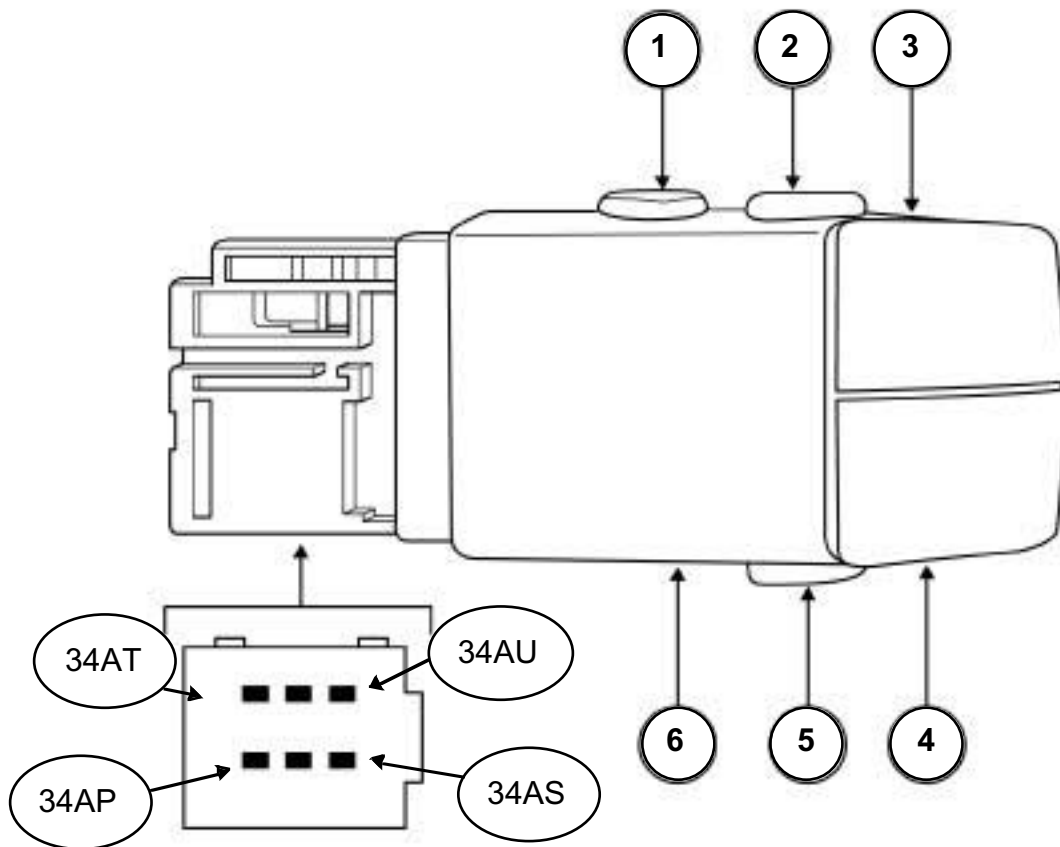
RADIO

Test

86A

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.
--------------	---



0000201073

RADIO

Test

86A

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 1 st position (6)	between 34AU and 34AR	< 150
Wheel 2 nd position (6)	between 34AS and 34AR	< 150
Wheel 3 rd position (6)	between 34AT and 34AR	< 150