

# RENAULT

## Technical Note 3701A

<i>Vehicle</i>	<i>Type</i>
TWINGO	X06X
KANGOO	XCXX
Clio II	XBXX
CLIO III	XRXX
MODUS	XPXX
LOGAN	XSXX
MEGANE/SCENIC	XAXX
MEGANE II	XMXX
SCENIC II	JMXX
LAGUNA	X56X
LAGUNA II	XGXX
ESPACE III	XEXX
ESPACE VI	XKXX
AVANTIME	DEXX
VELSATIS	XJXX
MASTER	XDXX
MASTER PROPULSION	XHXX
TRAFIC II	XLXX

## FAULT FINDING - AUDIO EQUIPMENT

*This note cancels and replaces Technical Notes 3480A, 3656A, 3702A and 3383A*

77 11 319 522

V4

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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# RADIO

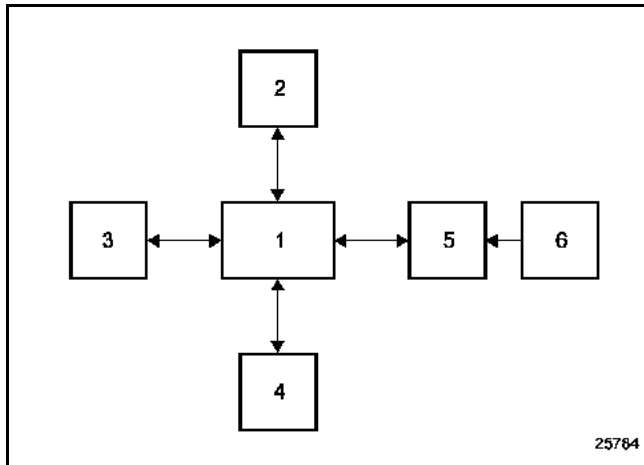
## General information

**86A**

The tuner-amplifier has a test menu (see radio self-test procedure) to carry out repair operations or fault finding.

The radio will operate for approximately 20 minutes without the ignition being switched to the accessories position. The radio beeps then switches off.

**Diagram:**



- 1 Radio
- 2 Aerial
- 3 CD changer
- 4 Speakers/tweeter speakers
- 5 Display
- 6 Steering wheel controls

Special features of radios in the PN range:

PN0: radio with built-in display.

PN1: radio with remote display.

PN2: radio and cassette player with built-in display.

PN3: radio and cassette player with remote display.

PN4: radio and CD player with built-in display.

PN5: radio and CD player with remote display.

R0: radio and CD player with built-in display.

**Notes:**

- All radios are designed to control a CD changer.
- There is a special procedure for replacing the CD changer located in the dashboard front panel.
- According to the vehicle version, the remote displays may have a 24 or 30-track connector or two 15-track connectors. This display may be built into the instrument panel.

**Note:**

To perform fault finding on the R0 radio of Kangoo, refer to section 86A of the fault finding manual for Kangoo 2 (MR 419, Fault finding, 86A, Radio).

The radio features allow you to:

- listen to the radio (four geographical zones can be programmed for FM radio)
- display the name of the station using RDS which automatically switches to the best transmitter (AF function),
- receive traffic news (**I Traffic** function),
- receive news flashes and emergency bulletins (**I News** function).
- receive public safety emergency bulletins (**PTY 31**).

### RADIO FUNCTION

The tuner has three selection modes displayed on the screen and accessible from the radio front panel:

- manual mode (MANU),
- preselected mode (PRESET),
- alphabetical order mode (LIST).

### CASSETTE FUNCTION

The cassette plays automatically once cassette mode has been selected using the steering wheel control or the front panel.

Only the Dolby fast-forward and rewind with search controls can be selected by specific buttons.

Note:

The Mute function, accessed via the voice synthesiser or the steering wheel control, stops the cassette playing.

### CD FUNCTION

The CD player can play conventional discs and any audio tracks on a CD-ROM.

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

If a CD changer is being used, random play is possible on only one of the possible 6 compact discs.

### THERMAL PROTECTION

If the radio temperature is too high for it to function properly, the volume is automatically reduced (without changing the volume shown in the display).

Should one of the speaker tracks short circuit, the supply to the amplifier will be cut off.

## **VOLUME CONTROL**

The volume can be increased according to the vehicle speed. To operate this function:  
select the desired volume adjustment curve by using the **Expert** mode (press and hold the **Source** button until a bleep is heard): **SPEED 5** for maximum increase, **0** to cancel the increase.

## Page 1 of 2

# FAULT FINDING LOG

System: Radio

Page 2 of 2

- **Documentation used in fault finding**

Fault finding procedure used	
Type of fault finding manual:	Repair manual <input type="checkbox"/> Technical Note <input type="checkbox"/> Assisted fault finding <input type="checkbox"/>
Fault finding manual number	
Wiring diagram used	
Wiring Diagram Technical Note Number:	
Other documentation	
Title and/or part number:	

- **Workshop fault finding**

- **Conditions under which fault disappears**

- **Parts returned**

Parts:	Radio <input type="checkbox"/>	CD changer <input type="checkbox"/>	Speakers <input type="checkbox"/>	Screen <input type="checkbox"/>
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Note:

**Complete and send off a fault finding log for each component that is removed and returned.**



**RENAULT**

**FD99  
Fault finding log**



# RADIO

## Security code recovery procedure

**86A**

### 2 methods for recovering the pre-code (1 letter and 3 digits):

#### 1 For **PN** type radios:

The pre-code is recovered by removing the **RECEIVER** and noting the four characters on the barcode that follow the letter T (see photo n° 114936).

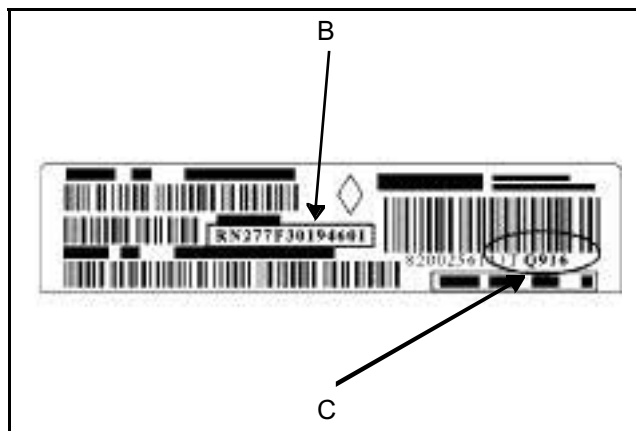
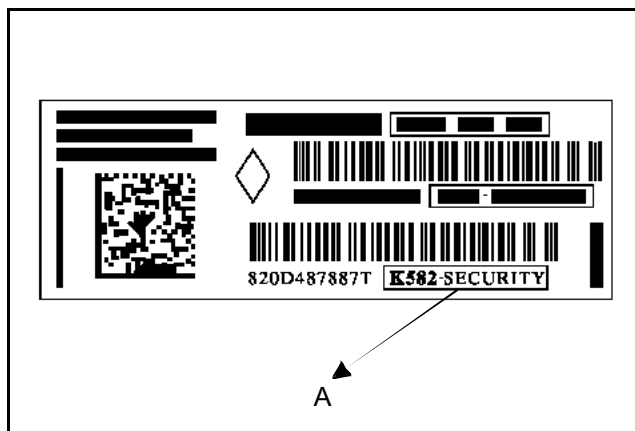
On older versions, note the series number at **(B)** and the pre-code after the letter T at **(C)**.

#### 2 For **NR** type radios

The pre-code is recovered **without removal**, by applying the following procedure:

- Switch on the radio.
- Press buttons 1 and 6 simultaneously for approximately 2 seconds.
- The pre-code appears on the display.

Note: on NR type radios, the pre-code remains visible at **(A)** on the radio (see photo n° 114937).



**THE VIN MUST BE ENTERED IN ALL 4 SOLUTIONS**

### 4 methods for recovering 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 World Vehicle Database 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, enter the pre-code and obtain the radio code.
- 3 For older vehicles which do not have a radio pre-code, enter the series number of the radio again. For example, for Philips radio, this code starts with RN. In the photo of the radio, this code is RN277F30194601.

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

- 4 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 via the control satellite or the radio keypad each time the battery is disconnected.

**Entering the code with the control on the steering wheel:**

Press the lower button on the control to confirm an entry.

**Entry via the radio:**

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. 32 minutes maximum).

Some configurations must be set after the code has been entered for the first time (see the **Configuration** Section). 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).

If the vehicle is equipped with a CD changer in the front panel, a code is exchanged between the CD changer and the radio.

- If a new CD changer is fitted, the radio code is programmed when the battery or CD changer is connected.
- If the radio is replaced, enter the security code of the old radio connected to the CD changer. The CD changer is programmed with the code for the new radio.
- If the old radio code is lost, the changer code can be cleared using the clearing code. The clearing code is issued by the Techline, server, etc.

**Note:**

If there is a configuration error, you can return to scrambled mode by pressing the 2 and 5 buttons at the same time as switching the power on. Then wait 2 minutes.

**Note:**

The CD changer is supplied uncoded. When it is installed in the vehicle, the CD changer is programmed with the radio supply code.

**Reminder:**

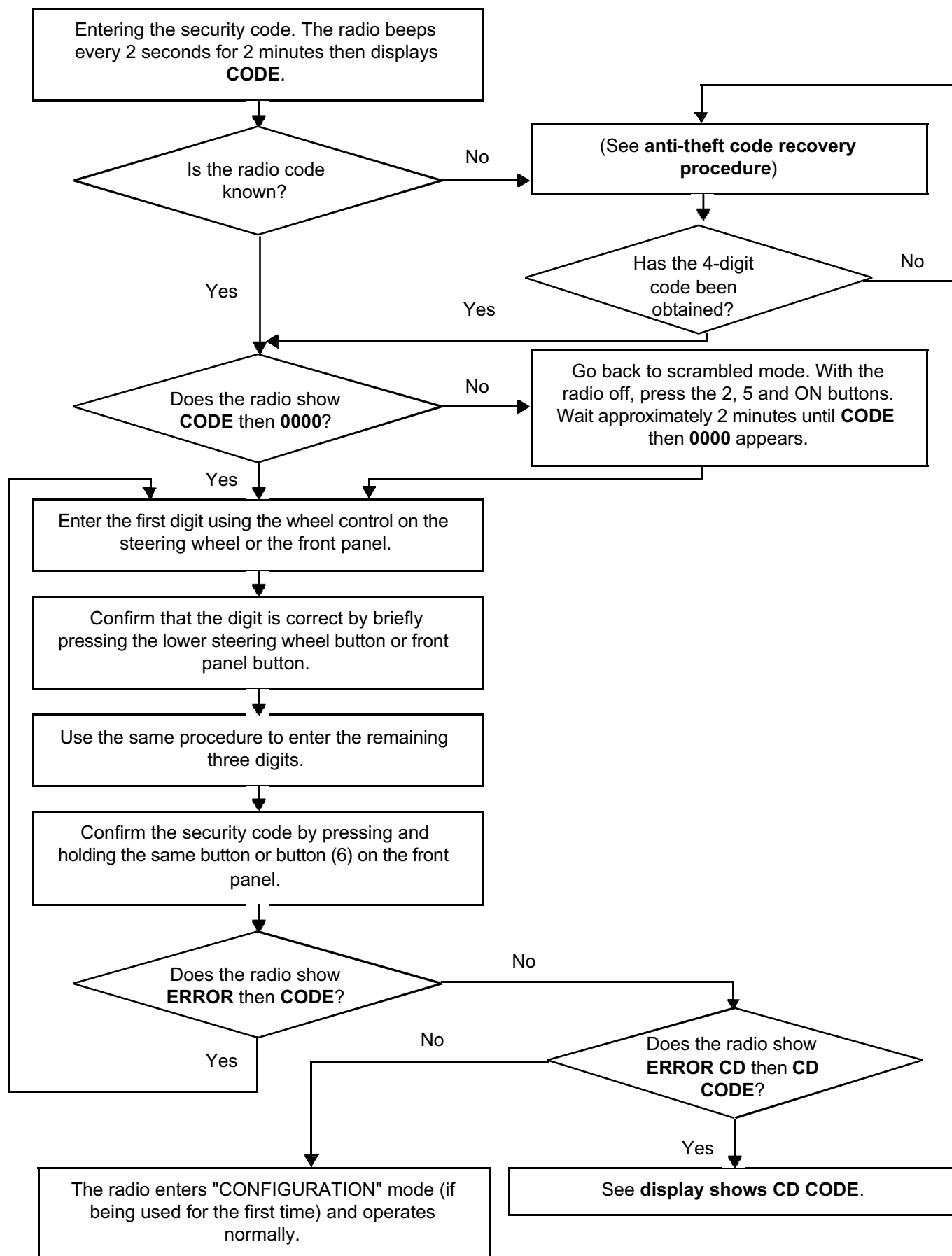
The radio will operate for approximately 2 minutes in scrambled mode without the code having been entered (with regular warning beeps).

**WARNING**

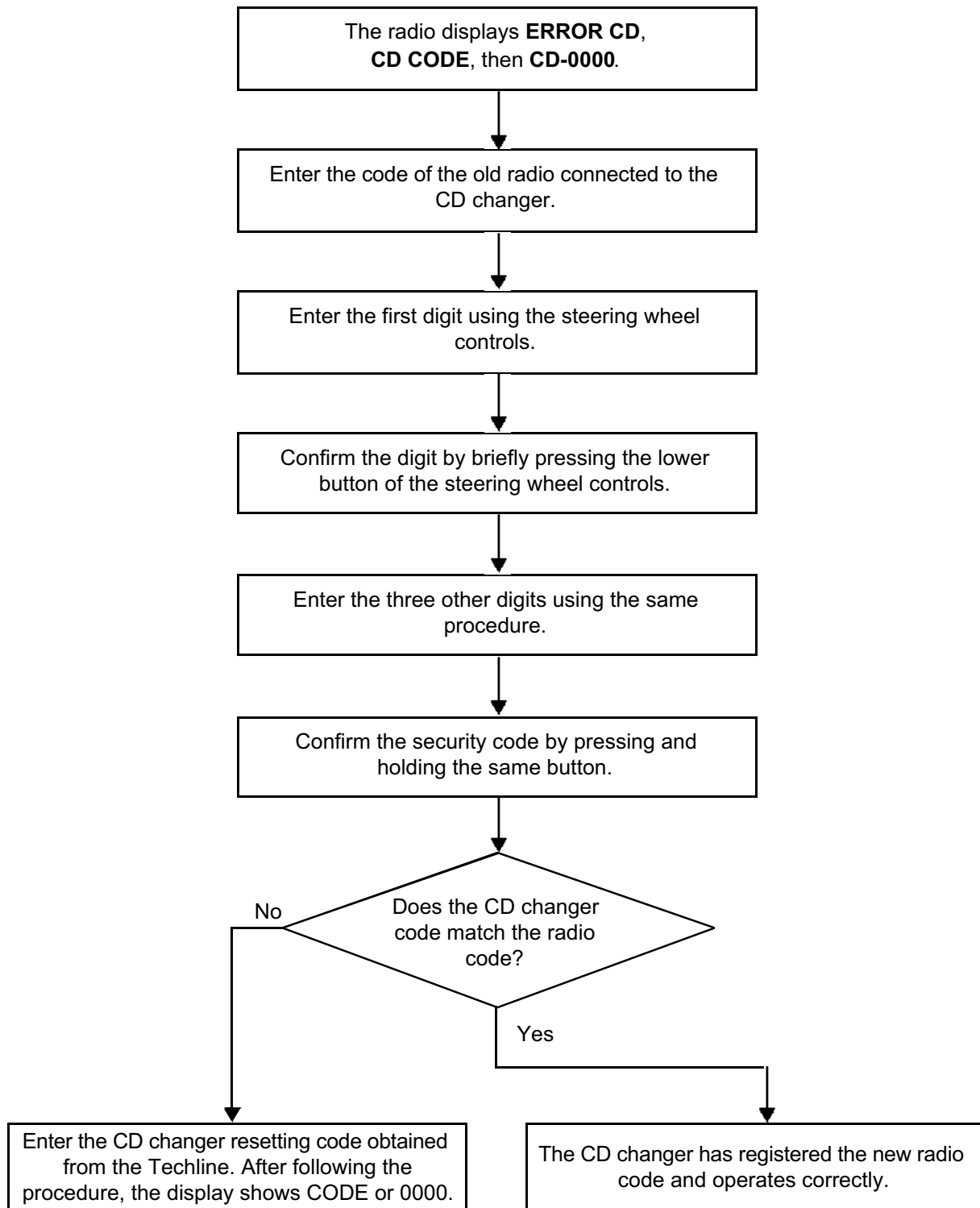
If the vehicle is fitted with a top of the range navigation system (ITS), enter the radio code in the following way:

1. switch on the system by activating the vehicle's + after ignition feed,
2. wait 2 minutes: scrambled mode with beeps from the speakers, then code request screen appears,
3. enter the radio code using the ITS keypad: move the cursor with the central control and press to confirm.
4. switch off the ignition.

**THE DISPLAY SHOWS CODE OR 0000**



**THE DISPLAY SHOWS "CD CODE"**



### CONFIGURATIONS

#### NOTE:

To select the zone in which the Tuner is to be used, press buttons **2** and **5**, at the same time as the equipment is switched on. Then wait approximately 2 min. Enter the four digit code and then:

- select the tone curve appropriate for the vehicle
  - 0: no regulation
  - 1:Twingo
  - 2:Clio
  - 3: Mégane / Scénic
  - 4: Laguna
  - 5: Vel Satis - Espace
- select the relevant zone:
  - **America**
  - **Japan**
  - **Asia**
  - **Arabia**
  - **Others** (Europe, Africa, other)

#### Note:

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

### SETTINGS

To enter configuration mode (**Expert** mode), press and hold the **Source** button (4 seconds) until you hear a bleep. This allows you to adjust the following functions:

#### NR range:

- AF mode activation (automatic retuning),
- vehicle speed-dependent volume control (5 for maximum regulation, 0 to cancel regulation),
- **Loudness** mode activation.

#### PN range:

- AF mode activation (automatic retuning),
- vehicle speed-dependent volume control (5 for maximum regulation, 0 to cancel regulation),
- **Loudness** mode activation,
- **Assisted tuner** mode activation,
- configuration of the number of **speakers** (2 or 4),
- manual or dynamic list selection.

#### PN6 radio:

- AF mode activation (automatic retuning),
- vehicle speed-dependent volume control (5 for maximum regulation, 0 to cancel regulation),
- **Loudness** mode activation,
- **Assisted tuner** mode activation,
- configuration of the number of **speakers** (2 or 4),
- manual or dynamic list selection.
- activation of data storage in accordance with the RENAULT Card: **CARD ON/OFF**. To operate, the radio must be accompanied by the navigation system.

To allocate the tracks for the different functions that are connected to the radio (CD changer, steering wheel control, display, aerial), refer to the Wiring Diagrams Technical Note corresponding to the vehicle.

**Radio:** see Wiring diagrams Technical Note, vehicle, code **261**

**CD changer:** see Wiring diagrams Technical Note, vehicle, code **1272**

**Display:** see Wiring diagrams Technical Note, vehicle, code **1127**  
For displays which are connected to the instrument panel, the code is **247**

**Steering wheel control:** see Wiring diagrams Technical Note, vehicle, code **325**

**Aerial:** see Wiring diagrams Technical Note, vehicle, code **886**

# RADIO

## Self-test procedure

86A

The self-test procedure mode of the previous generation radios (PN0-6) allows certain main functions to be tested:

- by pressing buttons 2 and 4 at the same time, the speakers can be tested. They are supplied one by one; the display enables the connections and signals from each speaker to be checked,
- by pressing buttons 1 and 6 at the same time, the reception level can be tested (after frequency is displayed),
  - 9 or letter: good reception,
  - less than 3: poor reception,
  - if 2: total loss of stereo.

The latest generation radio self-test procedure (NR4/5) enables some of the main functions to be checked using the key combination 1, 6 and i. The messages will be displayed as follows:

- **Radio pre-code displays one letter and 3 digits to avoid removal of the radio,**
- speaker test with two bleeps (bass - treble) from the speakers, with the tested speakers shown on the display (front left-hand H01, front right-hand H02, rear right-hand H03, rear left-hand H04),
- displays the frequencies and levels of the tuner sensors,
- software version displayed, displays fault finding for the connected aerial if the aerial is supplied by a coaxial cable; in this case, the display shows H15 with X = 0, 1 or 2 depending on the aerial status (0: open circuit, 1: short circuit to earth, 2: power consumption),
- audio test loudness OFF (H08), cuts any loudness for an audio test.

**Note:**

Also displays source use time and total time in 10 minute slots (Tuner (H09)/CD (H10)/cassette (H11)/CD changer (H12)/auxiliary (13)/MP (H14)/Total (H15)).

# RADIO

## Radio fault finding: Customer complaints

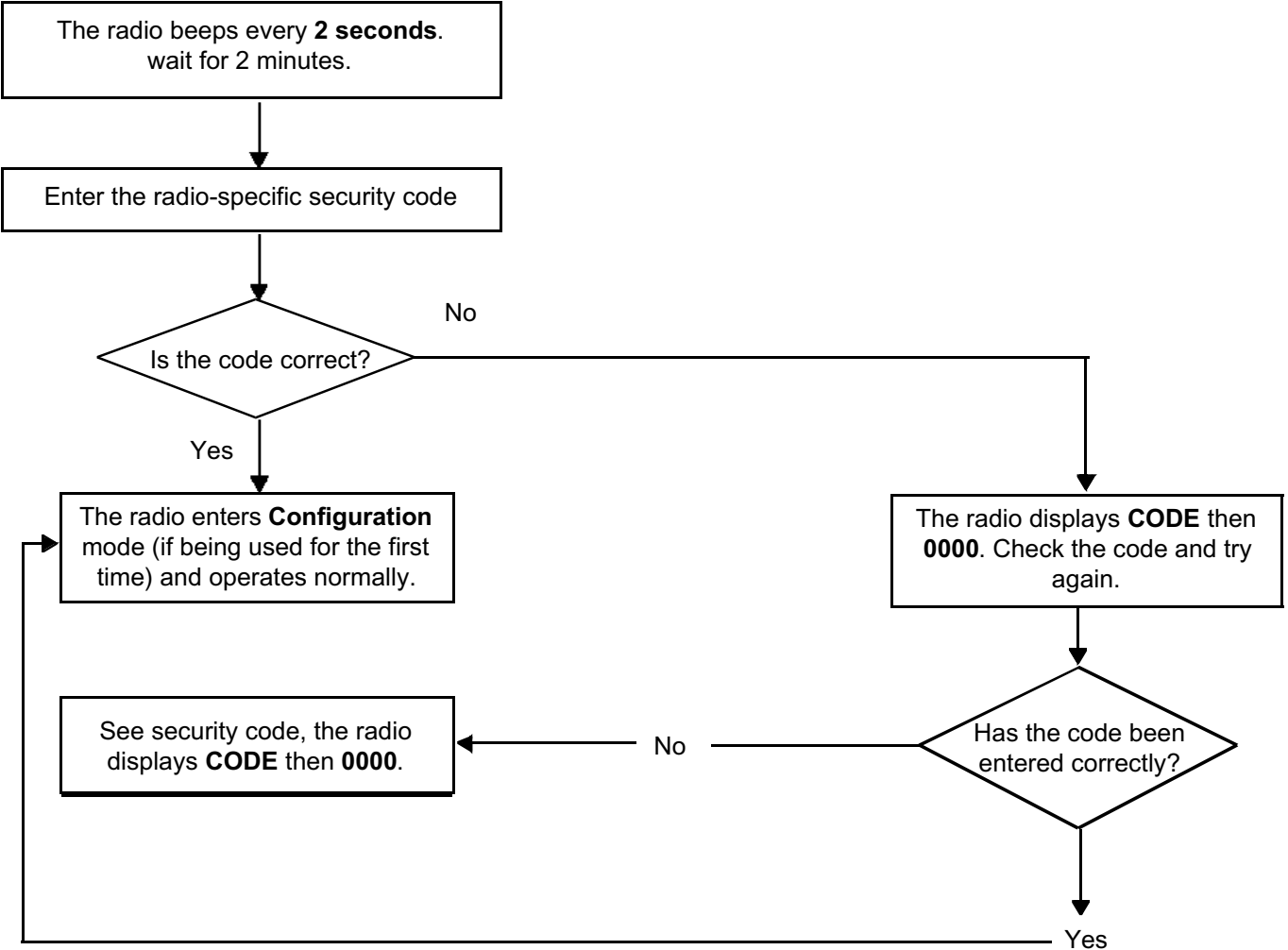
**86A**

THE RADIO BEEPS APPROXIMATELY EVERY 2 SECONDS	ALP 1
THE RADIO DOES NOT WORK (NO SOUND) WHEN THE RADIO ON BUTTON IS PRESSED	ALP 2
THE RADIO DOES NOT SWITCH ON AUTOMATICALLY WHEN + ACCESSORIES FEED IS SWITCHED ON OR SWITCHES OFF AFTER 20 MINUTES	ALP 3
THE RADIO IS SWITCHED ON, BUT THE DISPLAY AND SATELLITE CONTROLS DO NOT WORK	ALP 4
THE SATELLITE CONTROLS DO NOT WORK	ALP 5
RADIO RECEPTION FAULTS	ALP 6
THE VOLUME DOES NOT INCREASE WITH THE VEHICLE SPEED	ALP 7
LIGHTING DOES NOT CHANGE WHEN THE VEHICLE LIGHTS ARE SWITCHED ON	ALP 8
NO SOUND CUT-OUT DURING CARMINAT OR HANDS-FREE KIT MESSAGES	ALP 9
THE INFRARED REMOTE CONTROL DOES NOT WORK	ALP 10



**ALP 1**

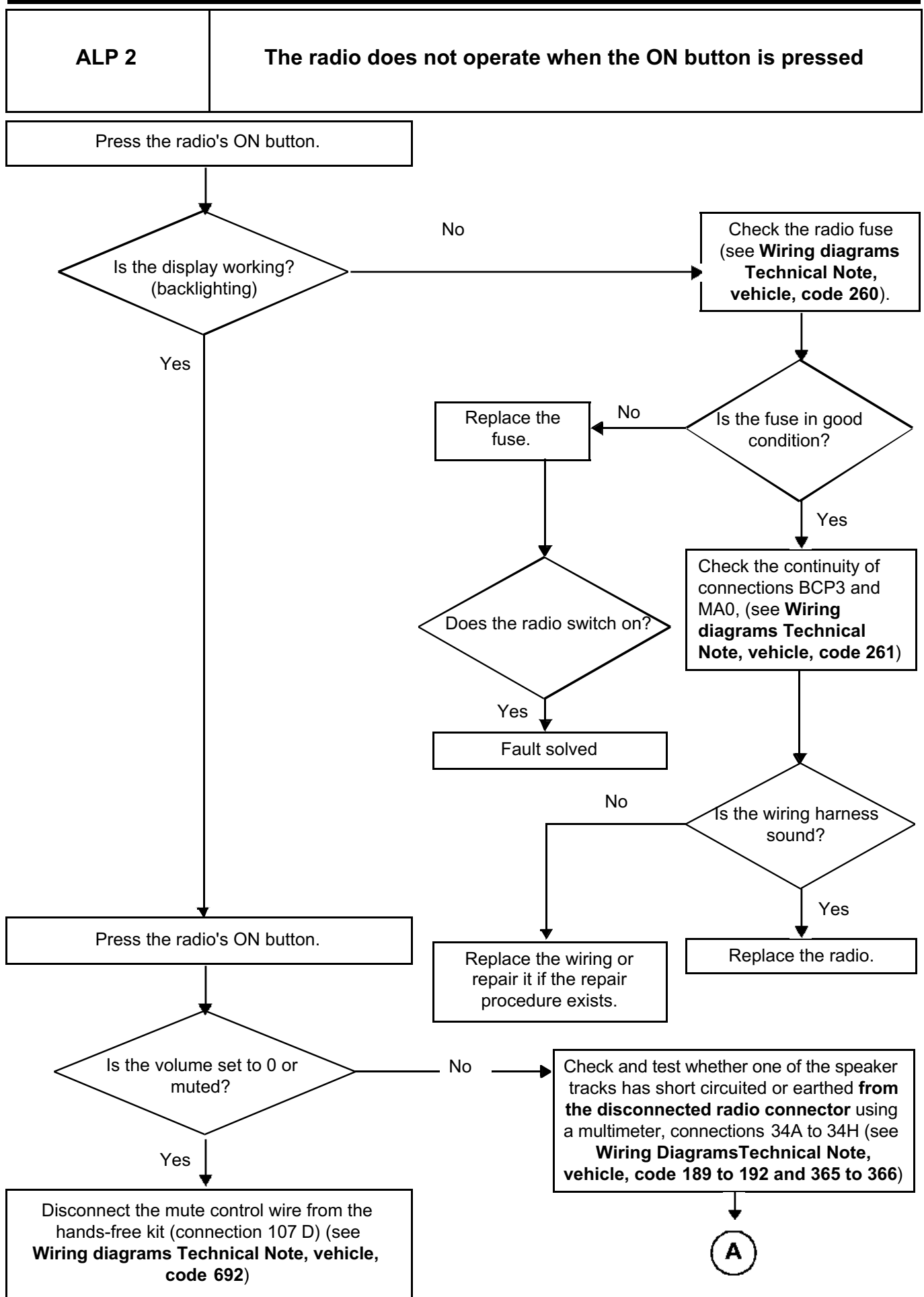
**The radio beeps approximately every 2 seconds**



# RADIO

## Fault finding chart

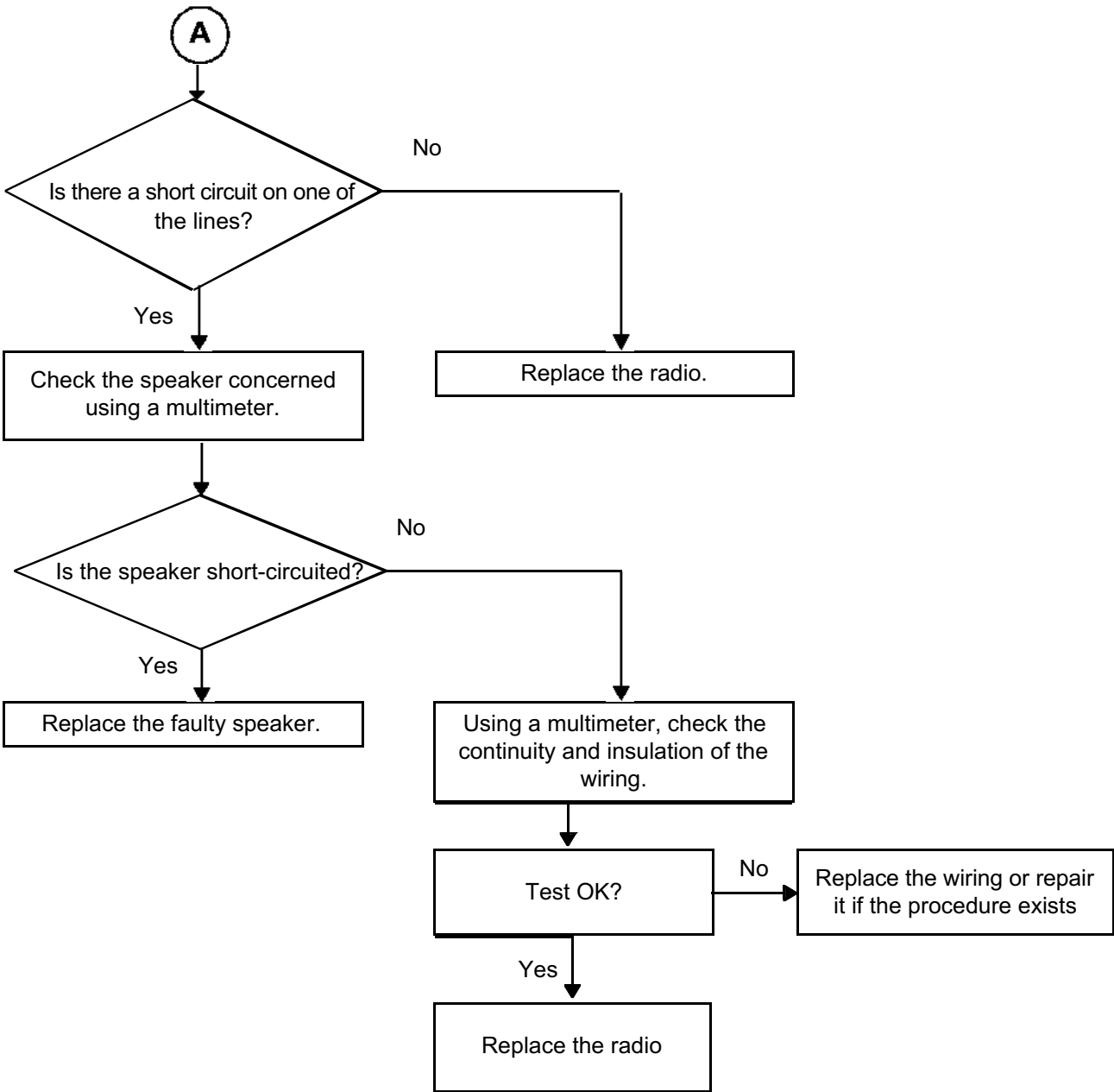
**86A**



**RADIO**  
**Fault finding chart**

**86A**

**ALP 2  
CONTINUED**



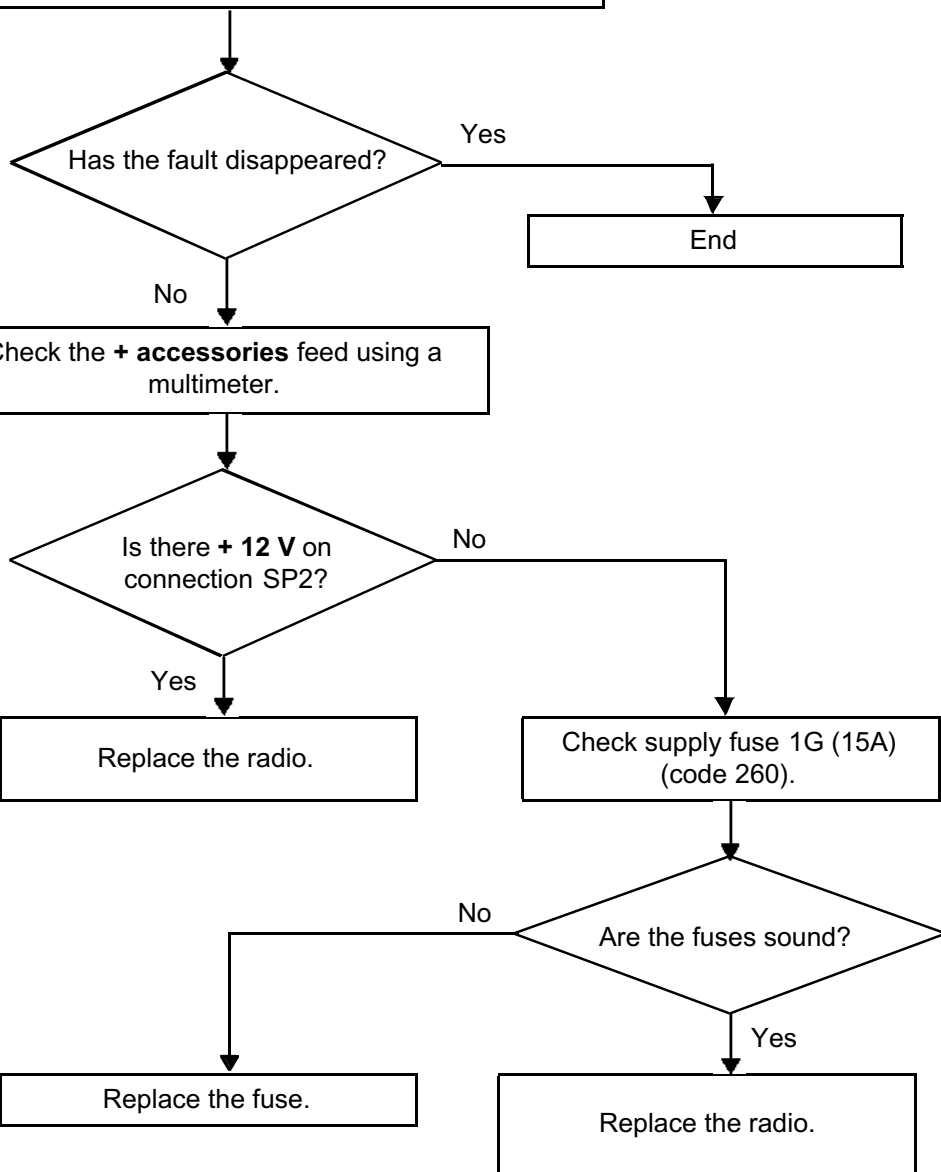
# RADIO

## Fault finding chart

**86A****ALP 3****The radio does not switch on automatically or switches off after 20 minutes**

Check that the system is operating correctly.

- Connect the **+ accessories** feed,
- Switch on the radio,
- Cut the **+ accessories** feed; the radio should switch off
- Restore the **+ accessories**; the radio should switch on.



# RADIO

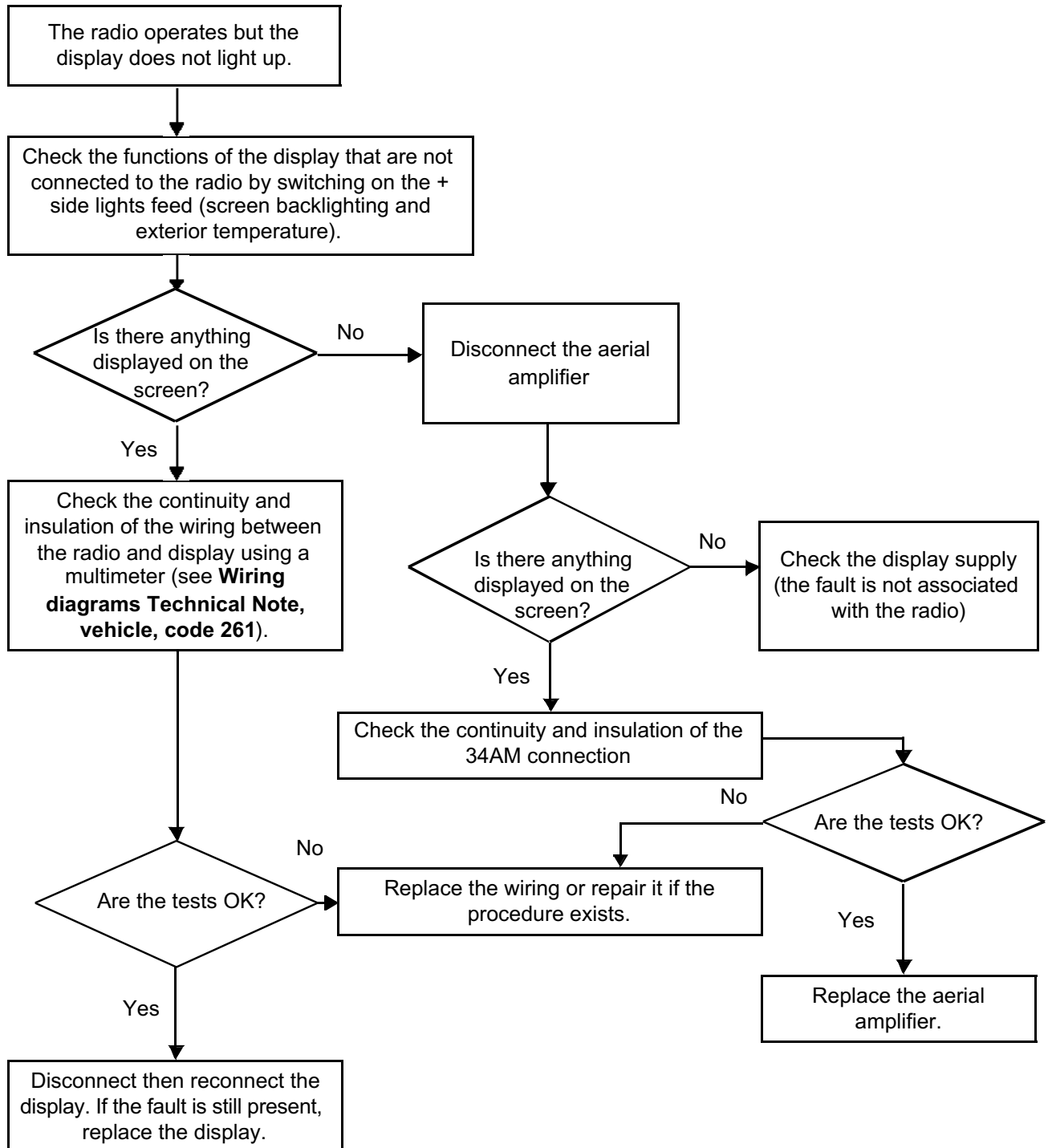
## Fault finding chart

86A

EXCEPT ESPACE IV, SCENIC II

**ALP 4**

**The radio is switched on, but the display and control satellite do not operate**



# RADIO

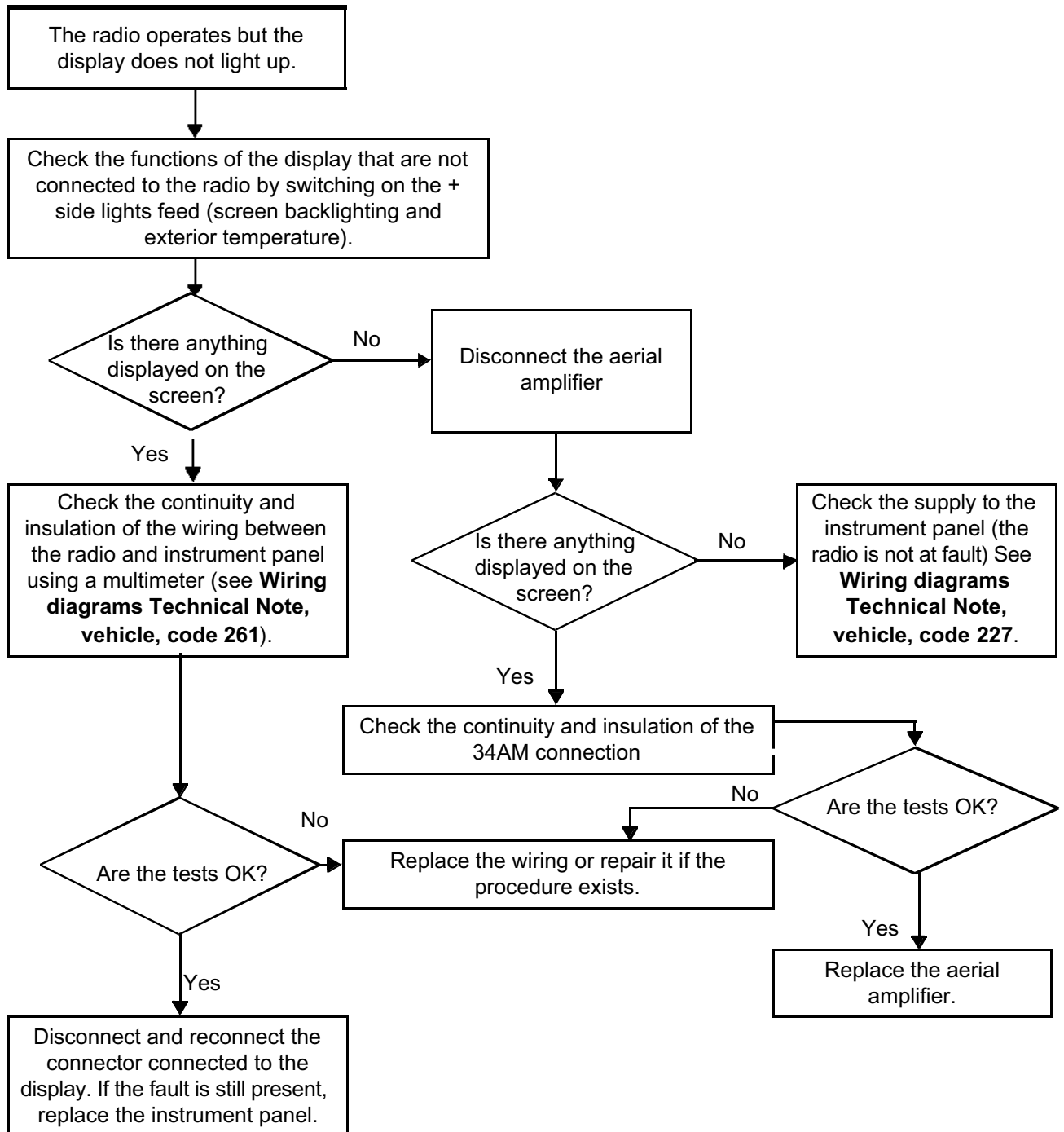
## Fault finding chart

86A

ESPACE IV, SCENIC II

**ALP 4**

**The radio is switched on, but the display and control satellite do not operate**



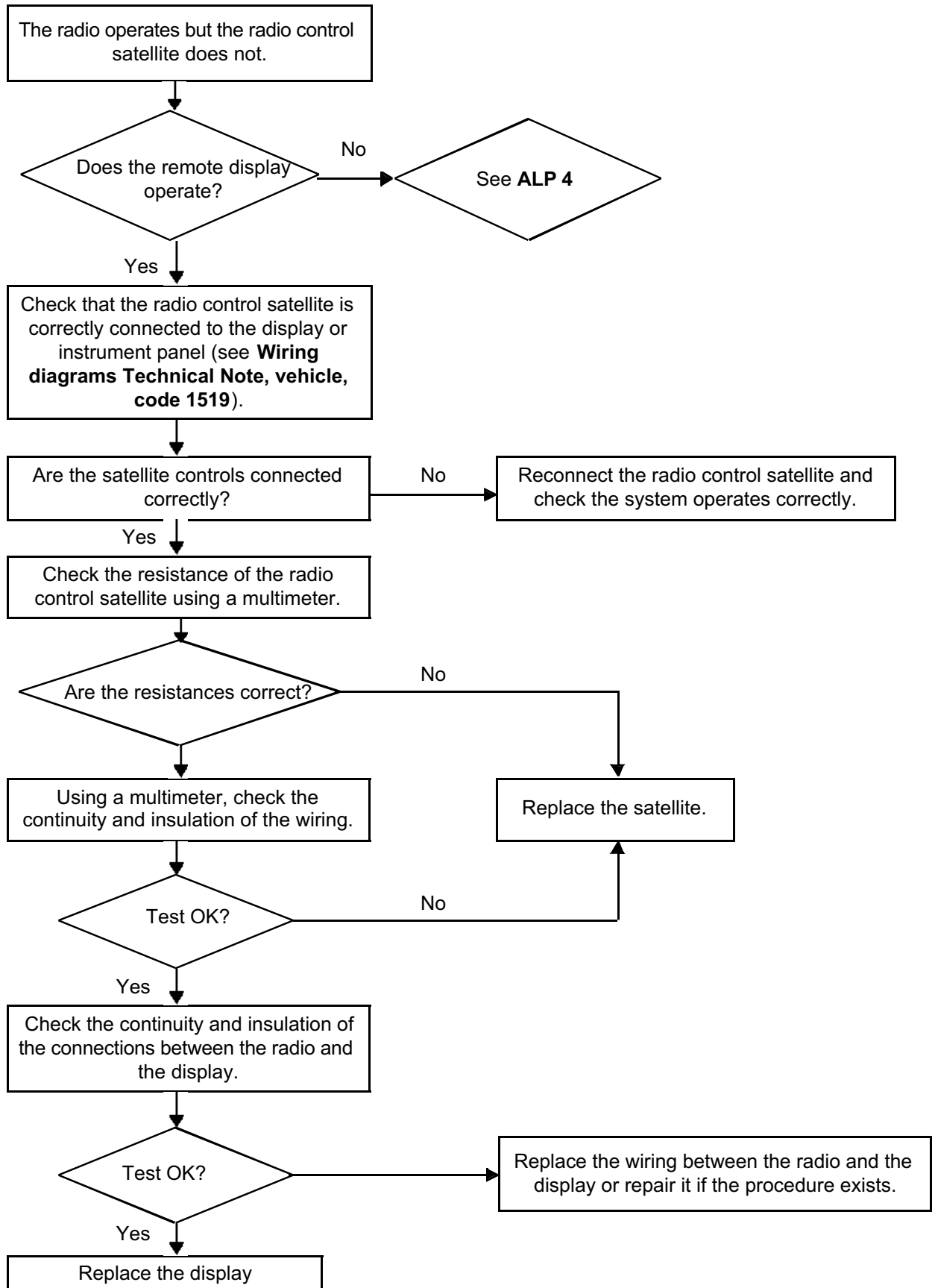
# RADIO

## Fault finding chart

86A

**ALP 5**

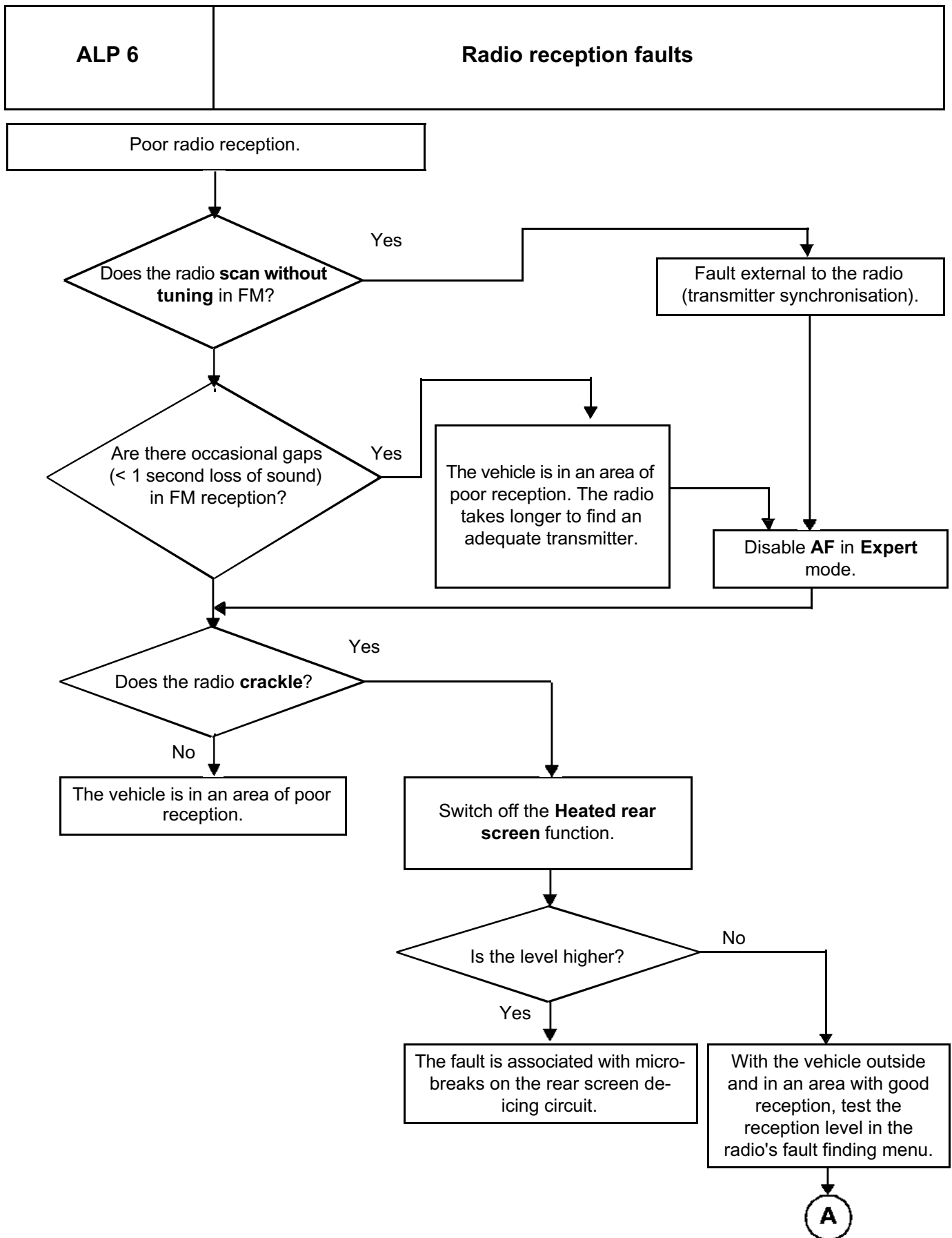
**The satellite controls do not work**



# RADIO

## Fault finding chart

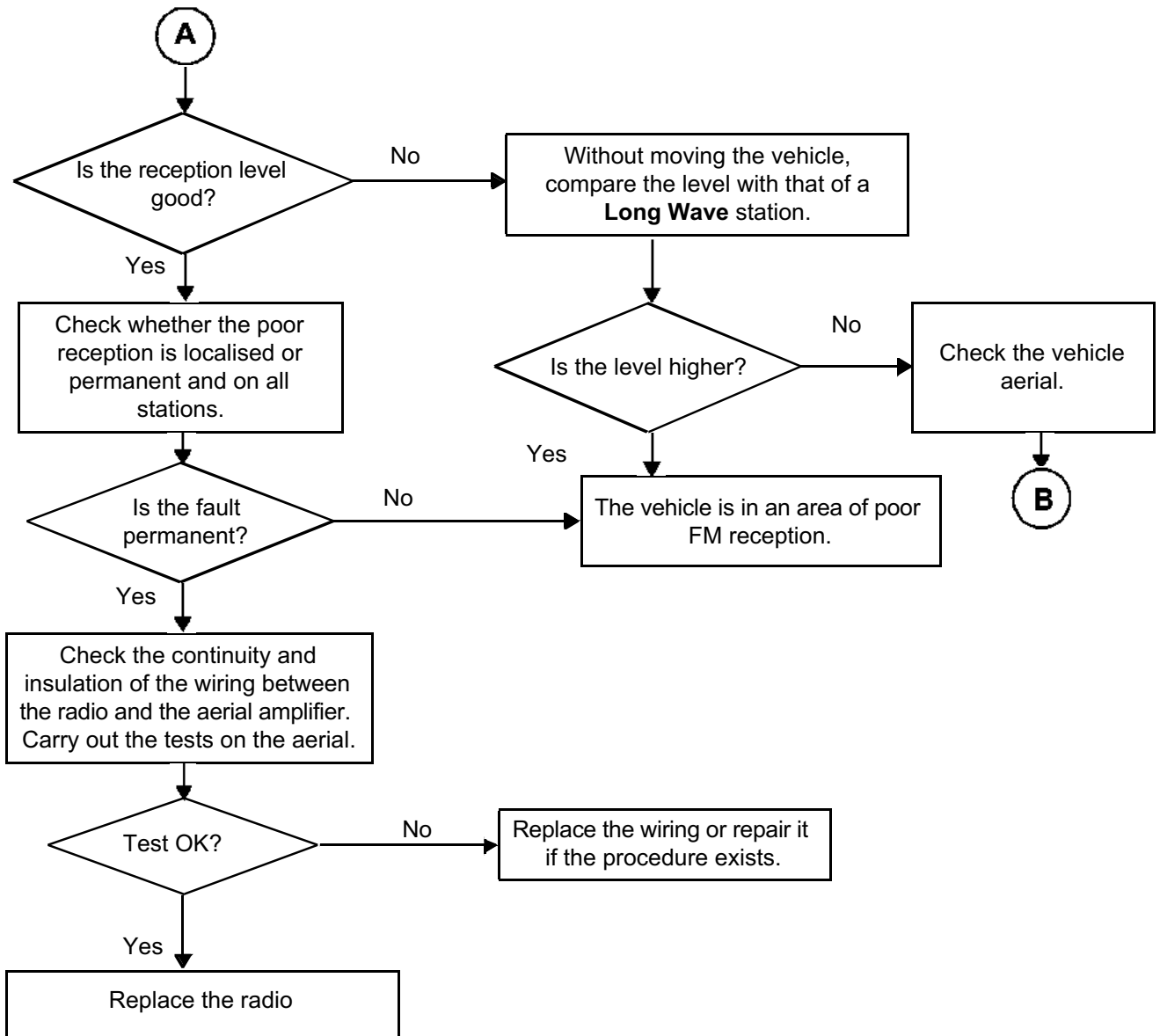
86A





# RADIO

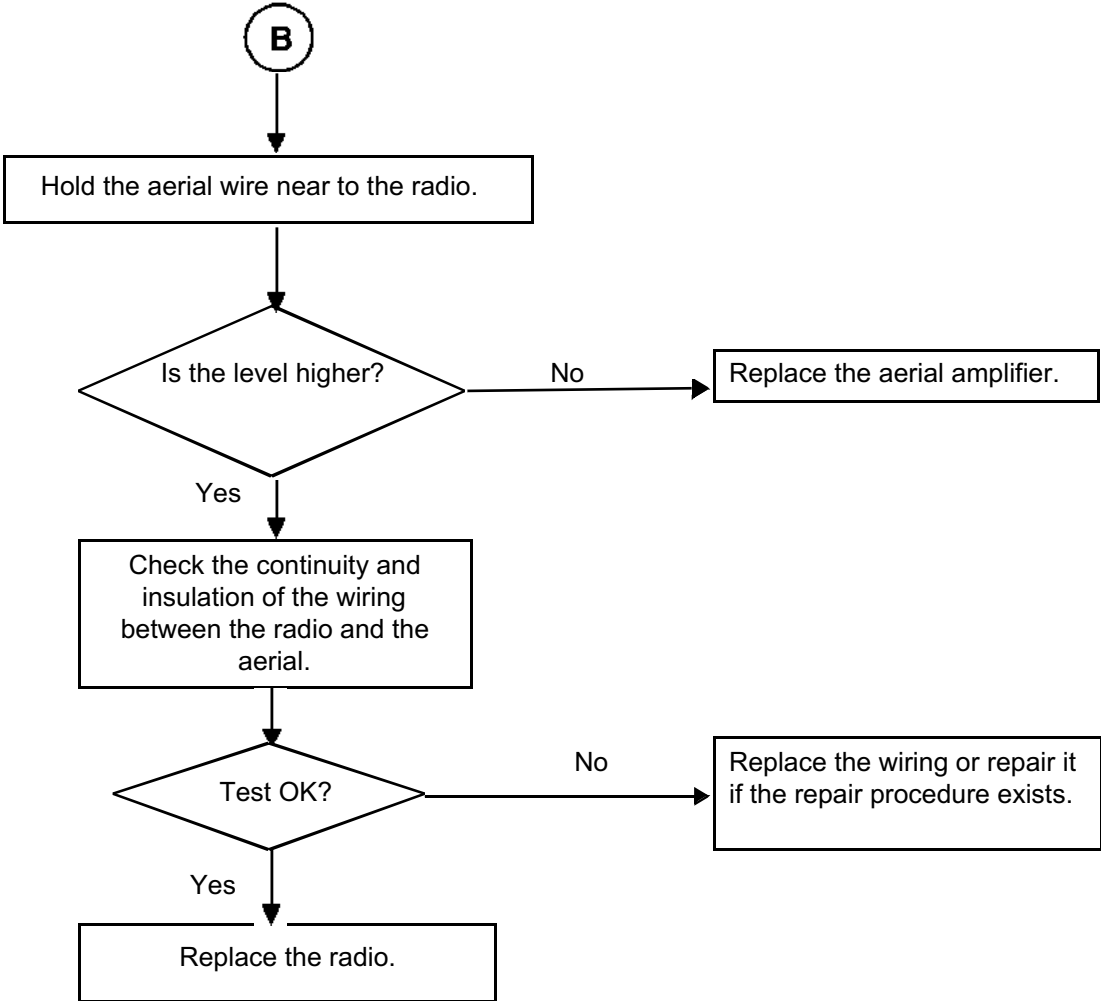
## Fault finding chart

**86A****ALP 6  
CONTINUED 1**

**RADIO**  
**Fault finding chart**

**86A**

**ALP 6**  
**CONTINUED 2**



# RADIO

## Fault finding chart

# 86A

### ALP 7

The volume does not increase with the vehicle speed.

The **SDVC** (speed-dependent volume control) function does not work.

Check the audio equipment configuration (**Expert** mode). Set the **SPEED** curve to 5 and run a test when driving at a speed greater than 48mph (80 km/h).

Does the volume change?

No

Yes

The fault has been rectified.

Reset the control to: **CURVE 2**.

Check the signal on connection 47F (see **wiring diagrams Technical Note, vehicle, code 261**) using a multimeter. The voltage should vary depending on vehicle speed.

Yes

No

Does the signal increase?

YES

The fault is not associated with the radio. See **MR Fault finding corresponding to vehicle, 38C**, ABS, Conformity check.

Replace the radio with the approval of your Techline.

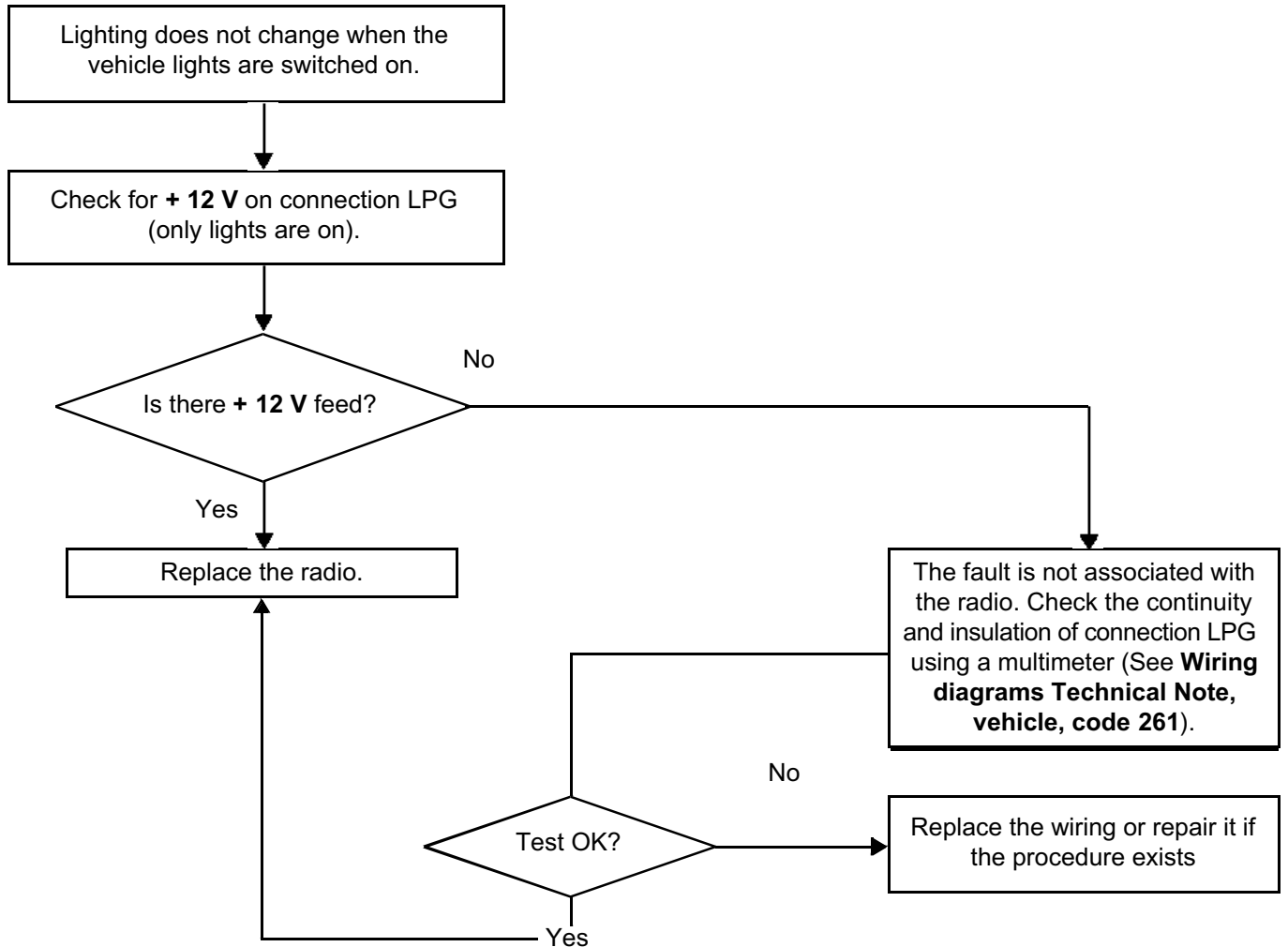
# RADIO

## Fault finding chart

86A

ALP 8

Lighting does not change when the vehicle lights are switched on



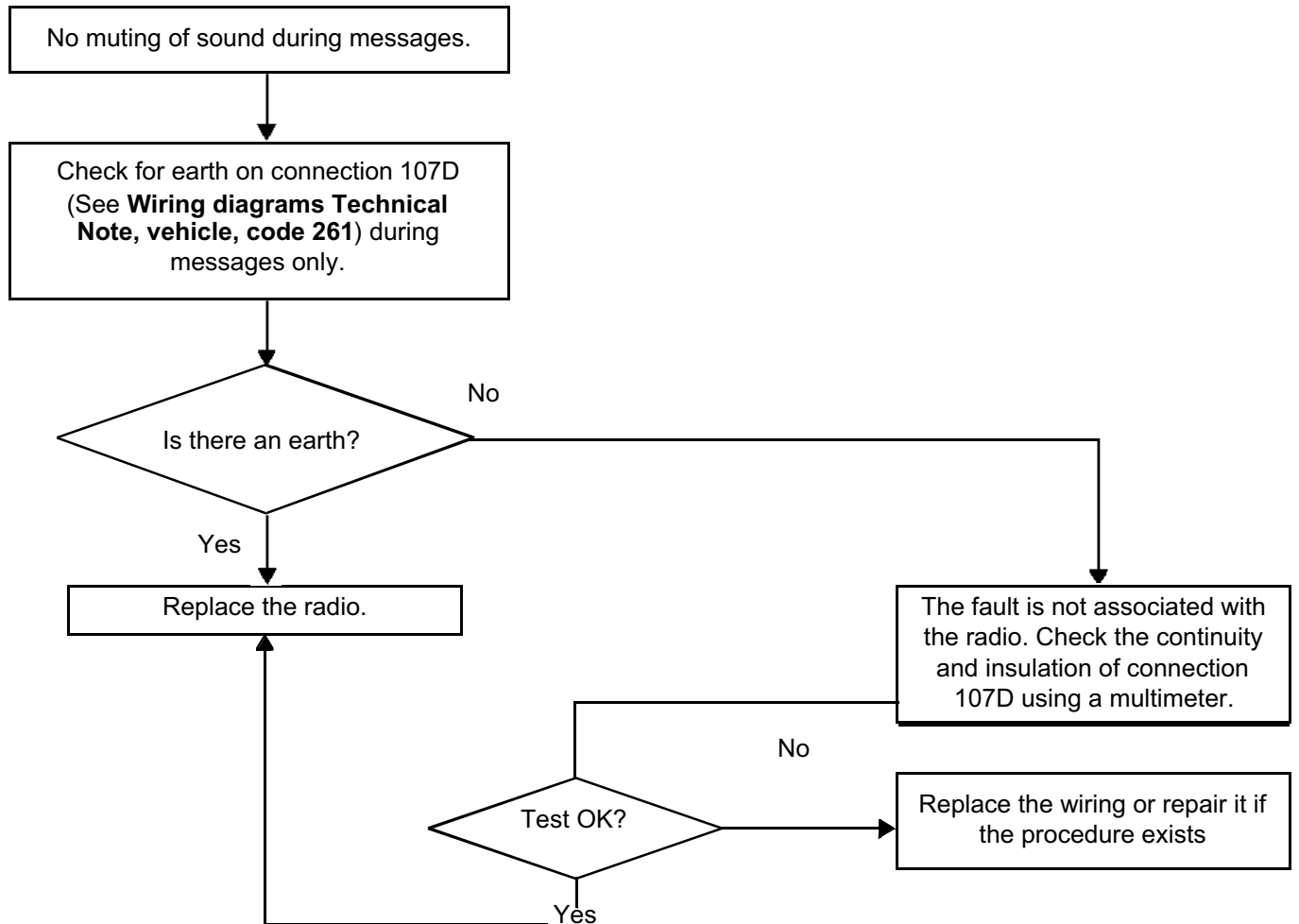
# RADIO

## Fault finding chart

86A

ALP 9

No sound muting during Carminat messages, for voice synthesiser or hands-free kit



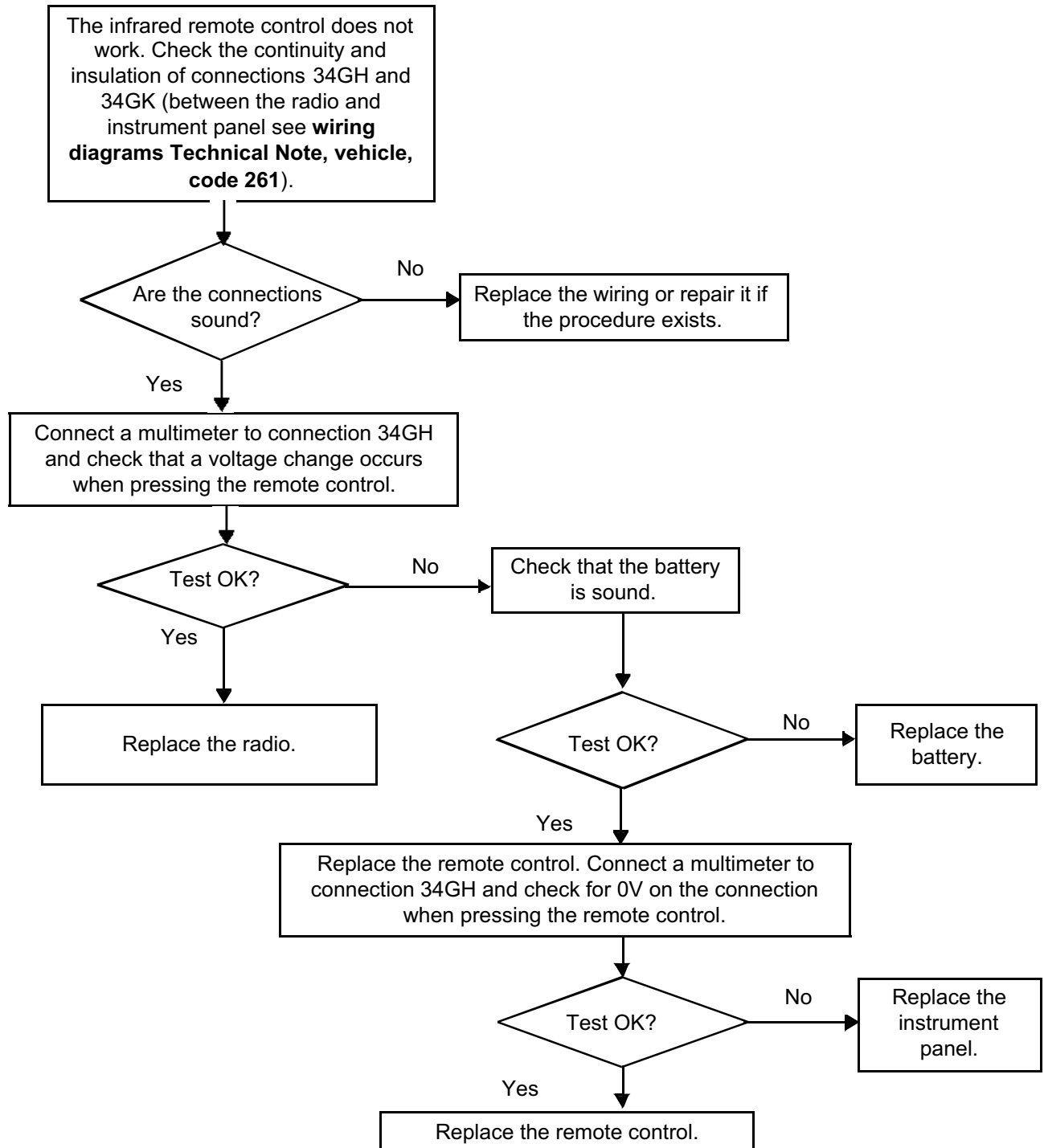
# RADIO

## Fault finding chart

# 86A

ALP 10

The infrared remote control does not operate (PN6)



# RADIO

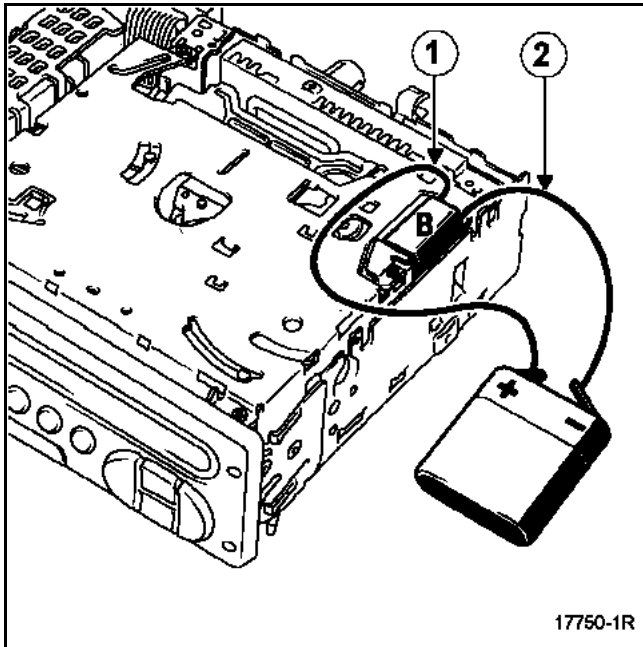
## Recovering a jammed CD

86A

### RADIO

#### First solution

If the electric ejector motor is operational, eject the CD using a **4.5 V** battery to supply the electric motor (**B**) (attach the + wire to contact **(1)** and the - wire to contact **(2)** when ejecting the CD).



# RADIO

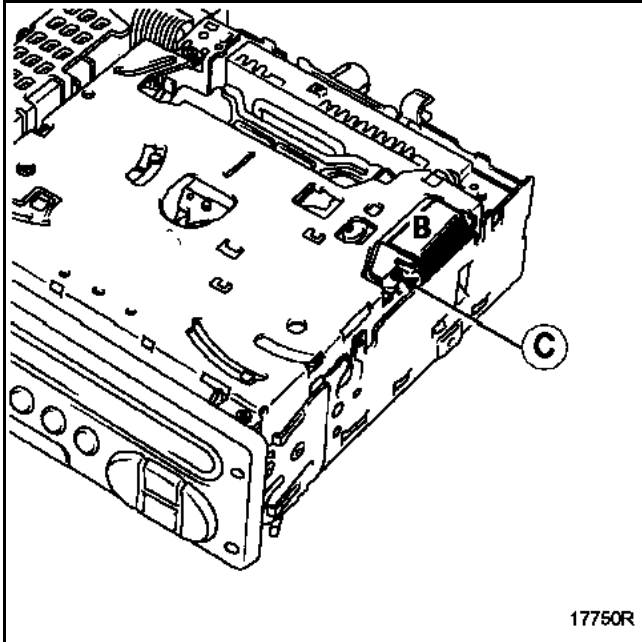
## Recovering a jammed CD

# 86A

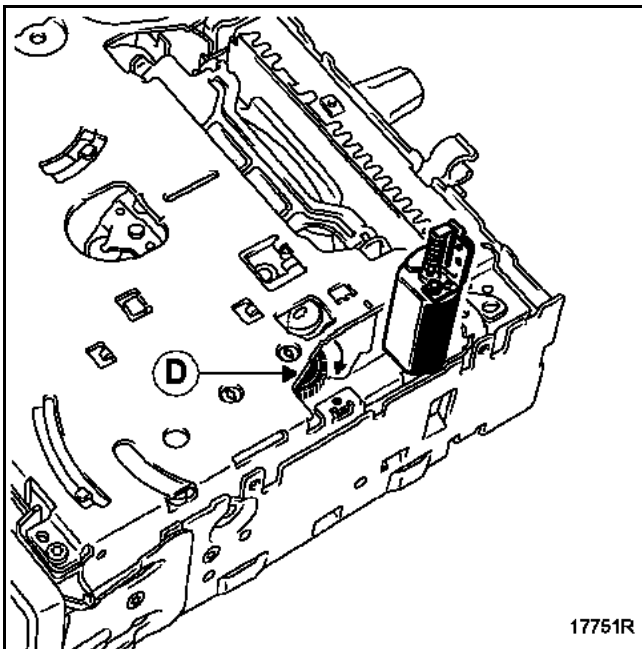
### RADIO

#### Second solution

If the electric ejector motor is not operational, remove the bolt (C) and release the electric motor (B).



Turn toothed wheel (D) by hand in a clockwise direction until the CD is ejected.



Before replacing the radio:

- refit the electric motor and attach it using the bolt (second solution only),
- refit the casing.



# RADIO

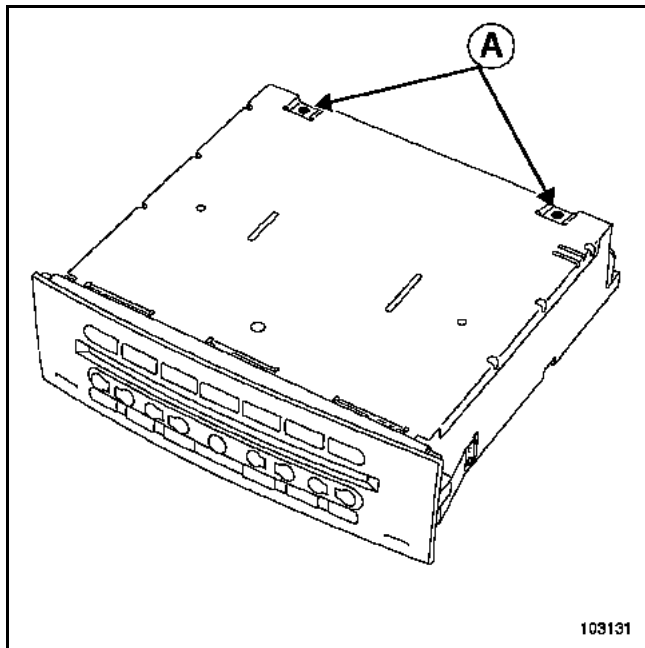
## Recovering a jammed CD

# 86A

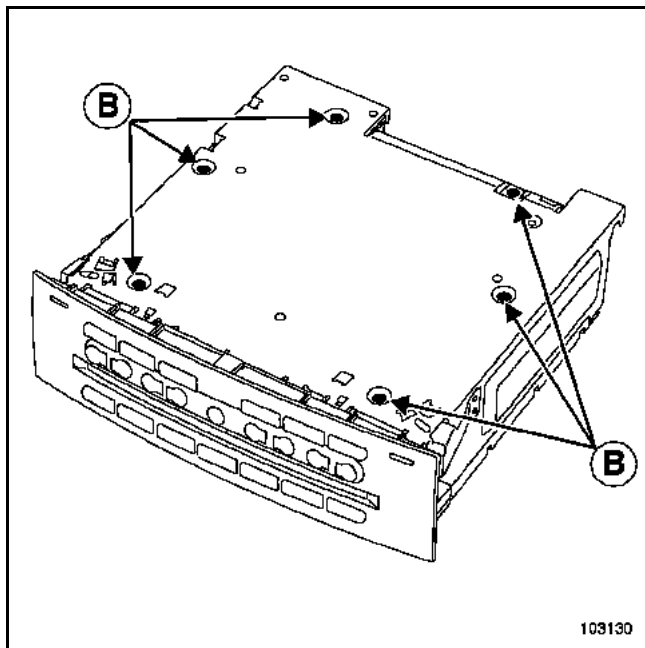
### CHANGER IN THE DASHBOARD

#### REMOVAL

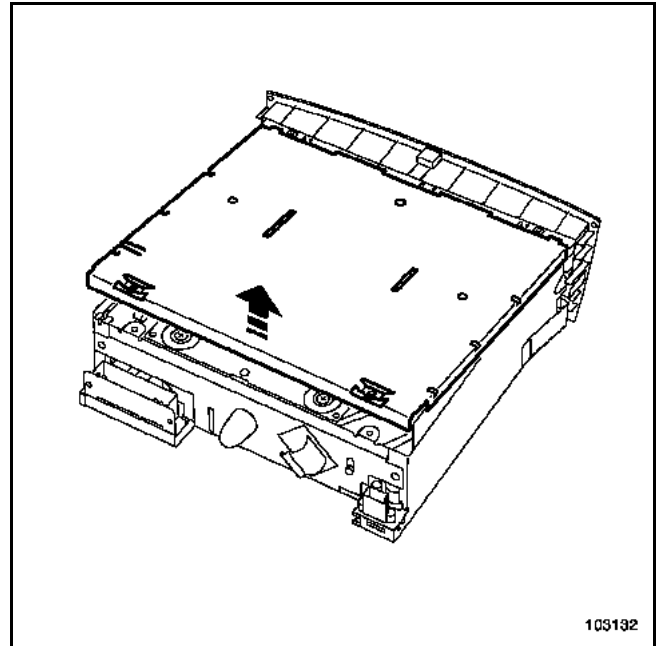
Remove the two bolts (A).



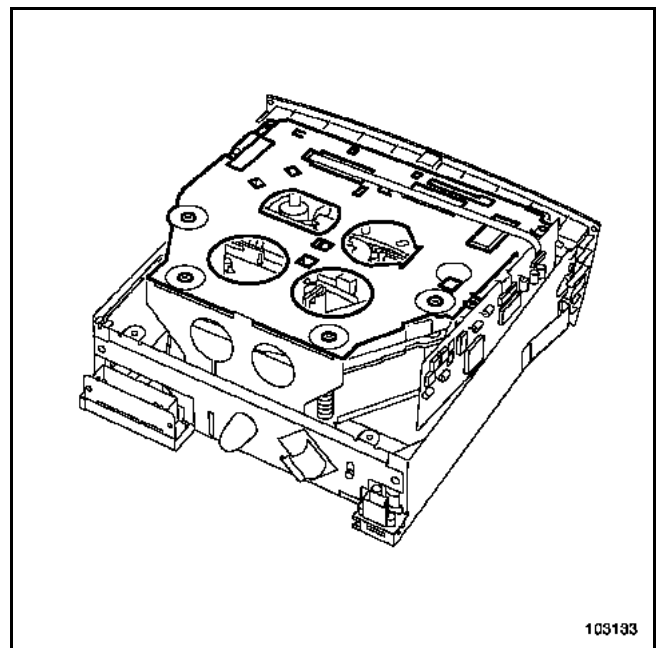
Turn the CD changer upside down.  
Remove the 6 bolts (B).



Turn the CD changer upside down.  
Remove the cover.



Remove the mechanism from its housing.



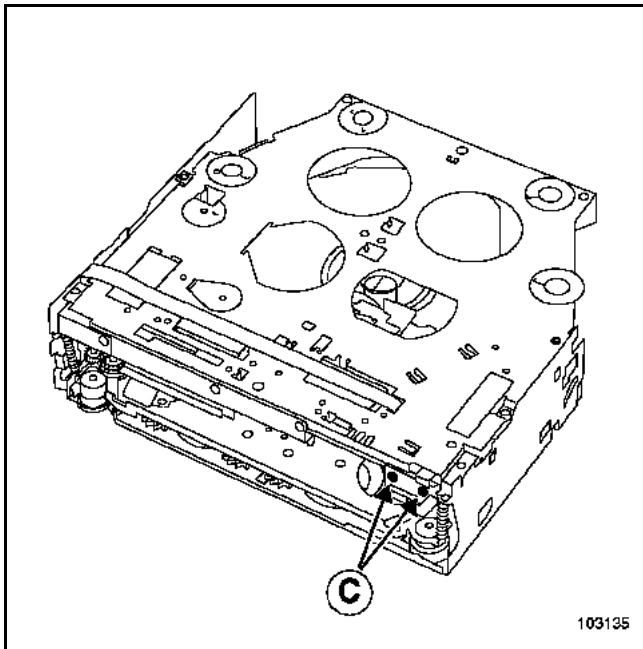
# RADIO

## Recovering a jammed CD

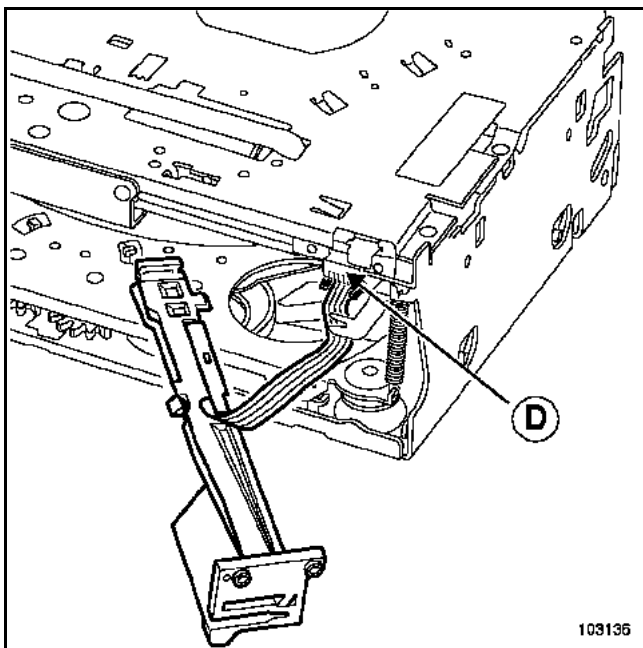
# 86A

### CHANGER IN THE DASHBOARD

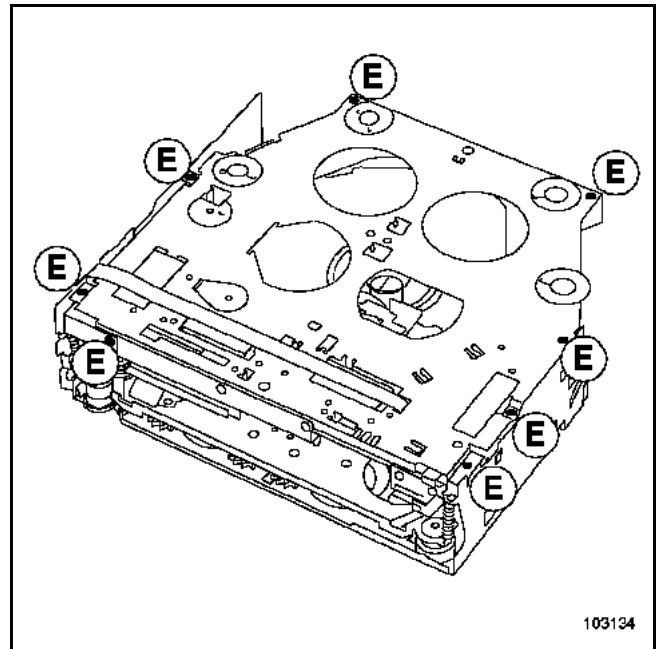
Remove the two bolts (C).



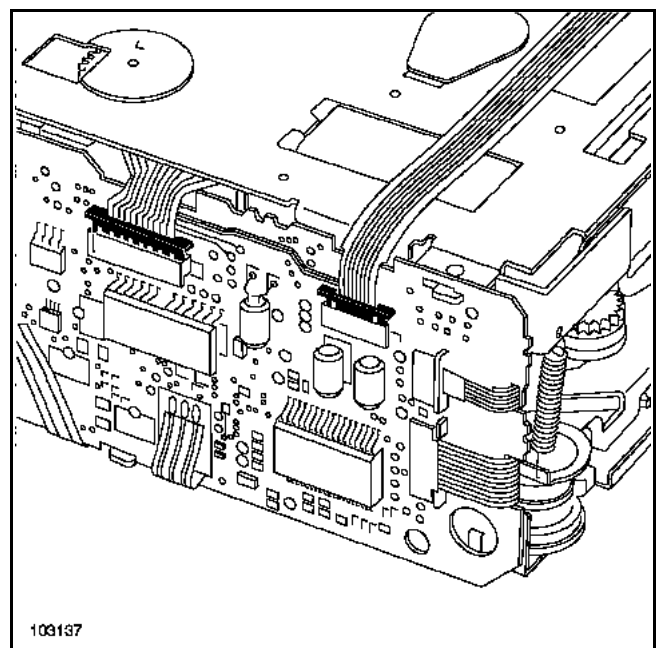
Remove the CD guide arm.  
Disconnect connector (D).



Remove the eight bolts (E).



Remove both clips from the two connectors.



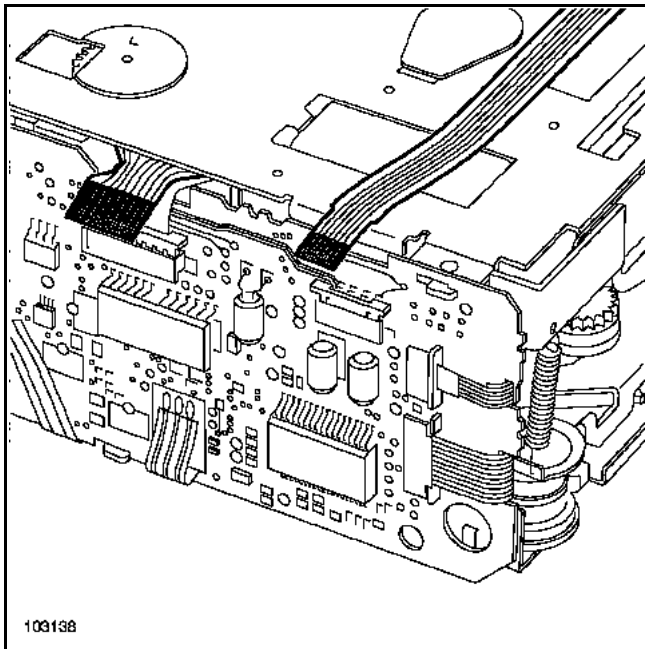
# RADIO

## Recovering a jammed CD

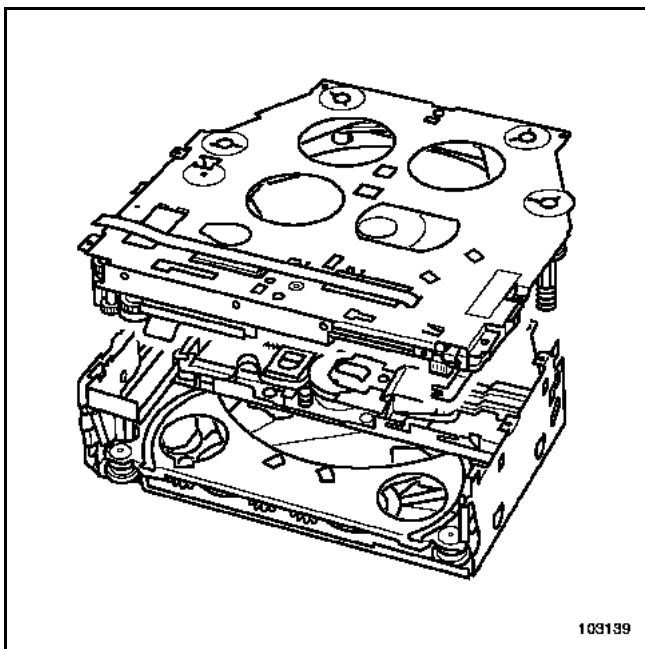
# 86A

### CHANGER IN THE DASHBOARD

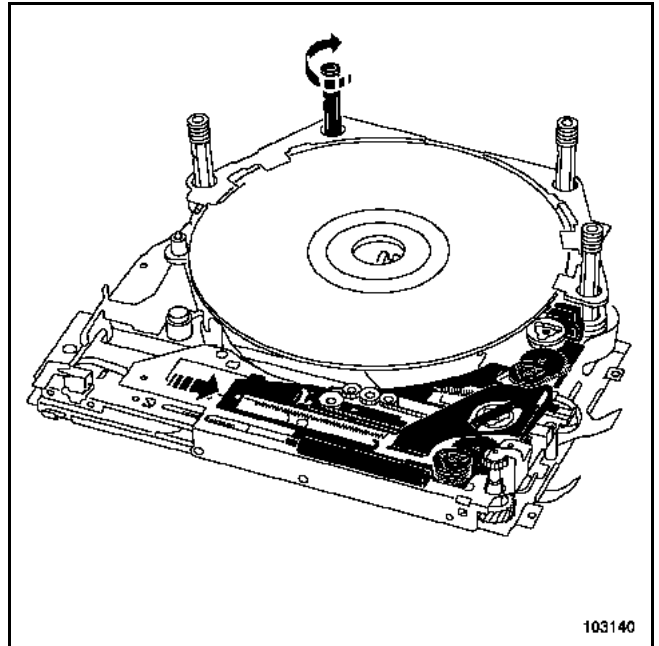
Remove both ribbon cables.



Remove the upper section of mechanism.



Turn the guides and push the mechanism as shown in the diagram in order to raise or lower the CDs.



The CDs can now be accessed.

#### **WARNING**

Never refit the changer mechanism once it has been removed.

# RADIO

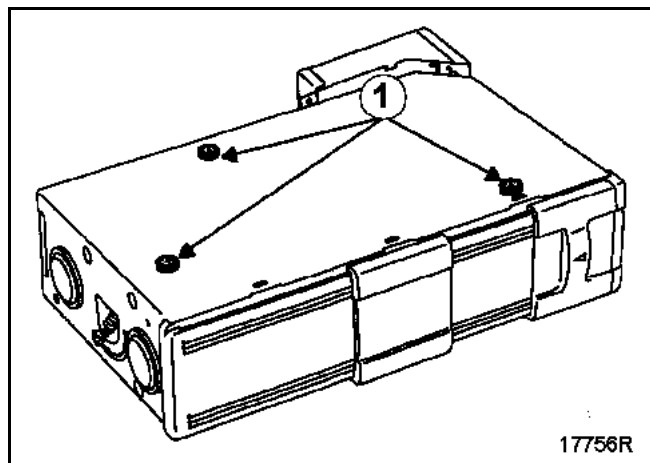
## Recovering a jammed CD

# 86A

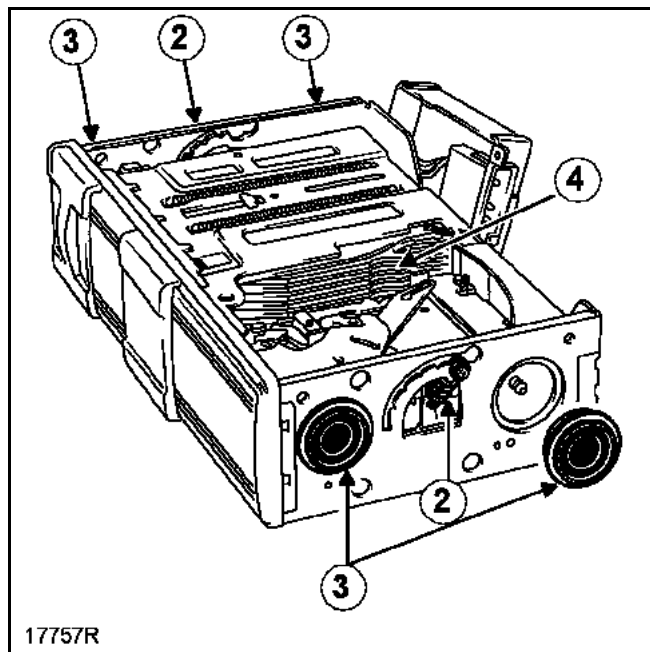
### CHANGER IN THE BOOT

Remove:

- the three bolts (1) located underneath the unit,

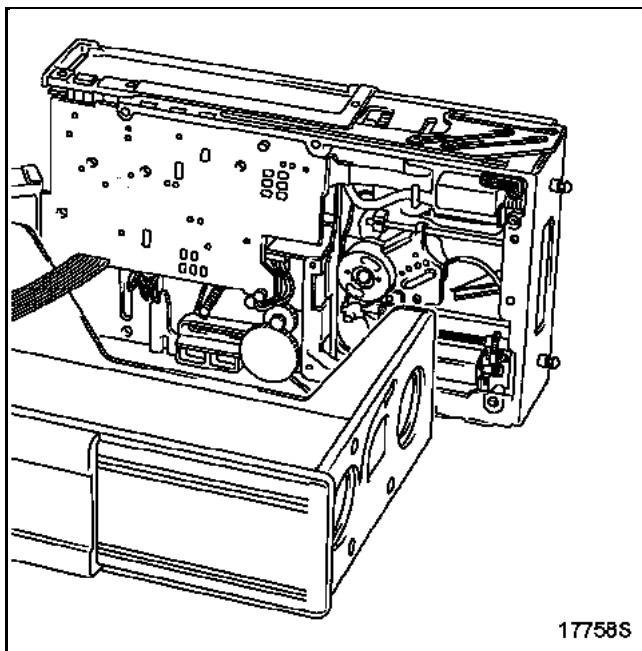


- the two springs (2) after bringing them to the upper position,



- the four dampers (3) (clipped on).

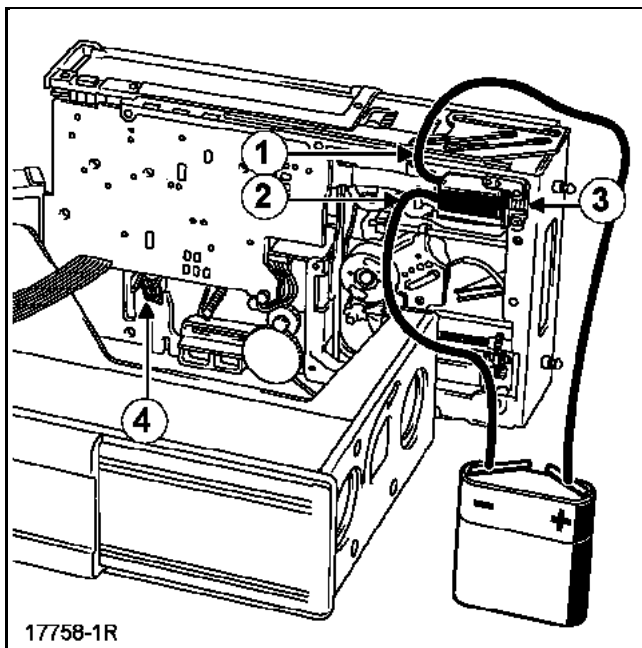
Remove the electronic module from the mounting and place it to the side.



### First solution

If the electric motors are operating:

- 1 Reinsert the CD and its drawer into the changer (4) using a 4.5 V battery to supply the electric motor (3), (attach the + wire to contact (1) and the - wire to contact (2)).
- 2 Eject the changer by moving lever (4).

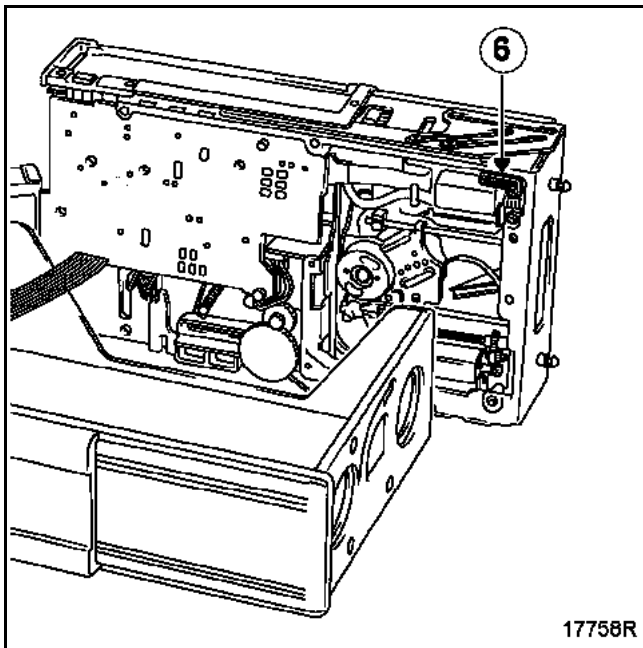


### CHANGER IN THE BOOT

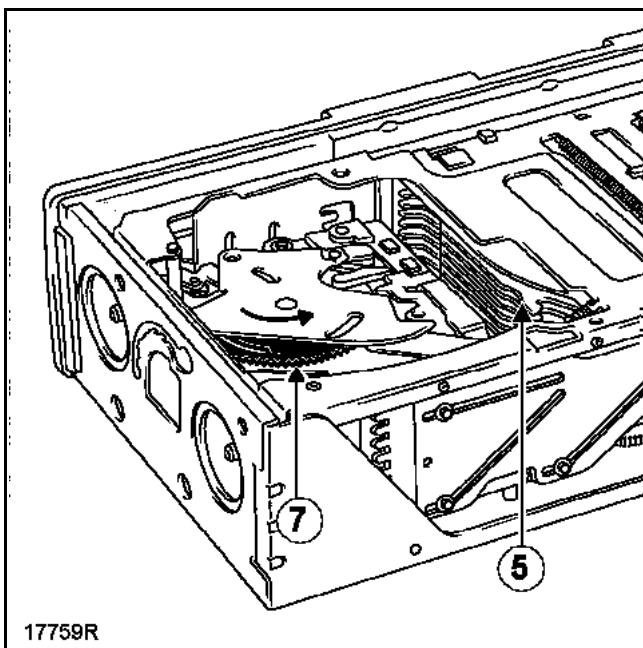
#### Second solution

If the electric motors are not operational:

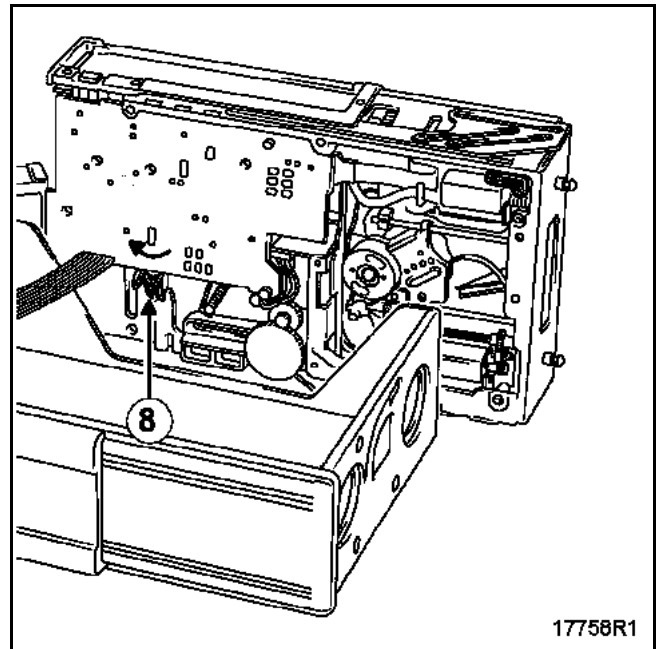
- 1 To reinsert the CD and its drawer into changer (5), remove the pinion mounting (6) by its bolt,



turn the toothed wheel (7) by hand in an anticlockwise direction until the drawer is turned completely upside down in the changer (5).



- 2 Eject the CD changer by moving the lever (8).



Before replacing the radio:

- refit the module in its unit, replace the four dampers and the two springs,
- attach the module to the unit using the three bolts,
- re-close the changer, attach its cover and refit the rear section.