

TWINGO

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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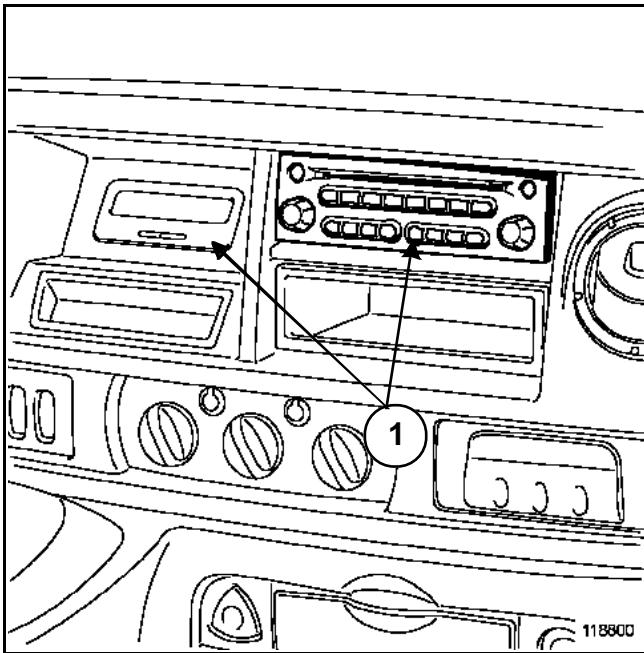
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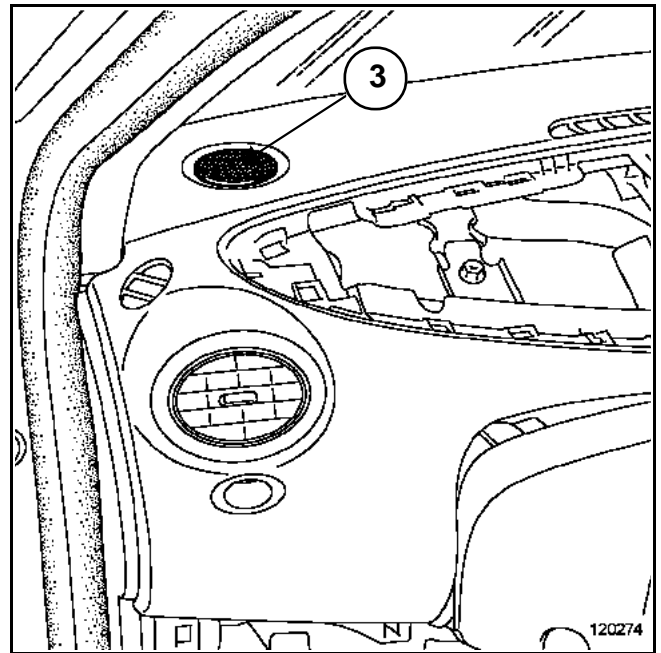
RADIO

List and location of components

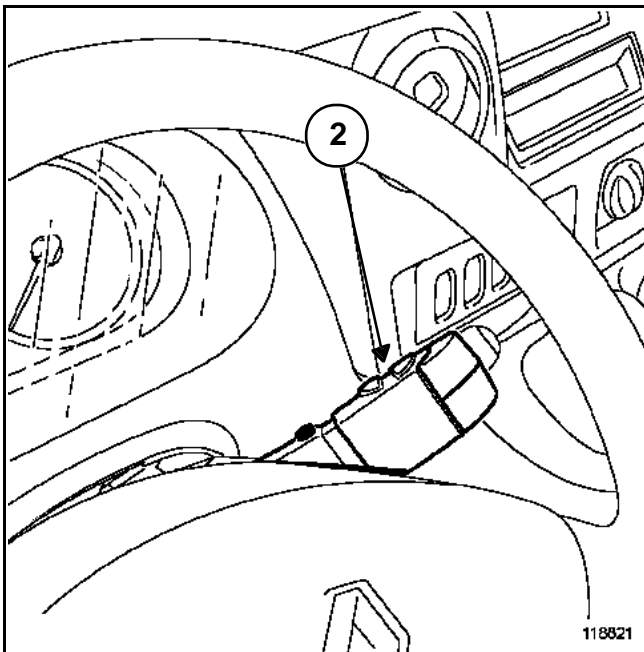
86A



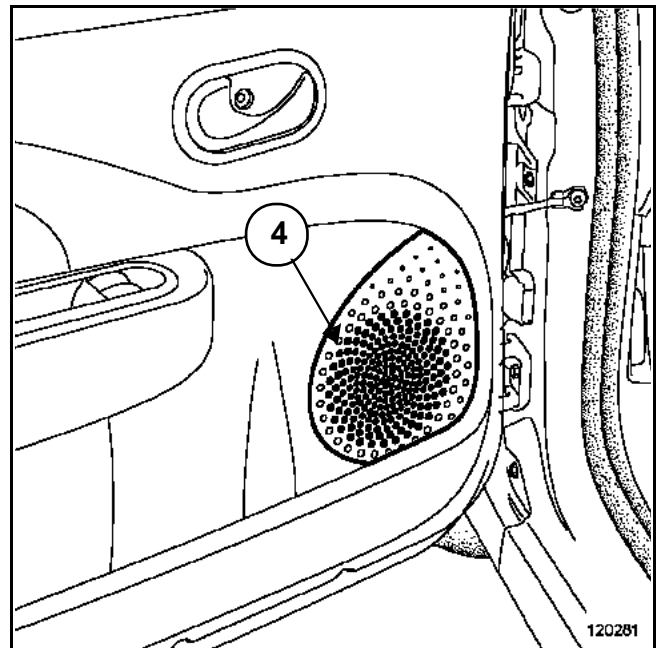
1 Radio and radio display integrated into the instrument panel



3 Front tweeter speaker



2 Radio control satellite

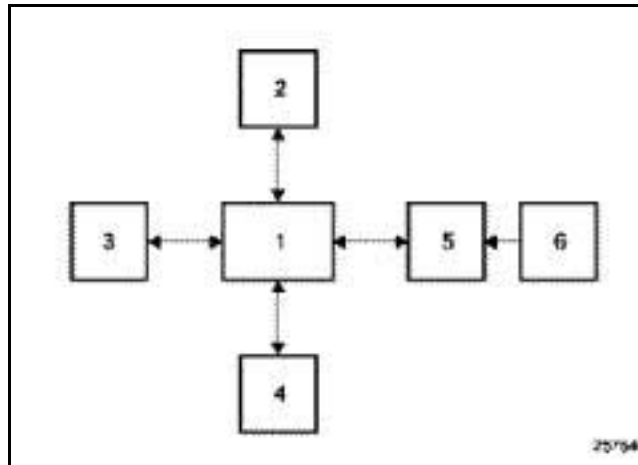


4 Front speakers

RADIO

Operating diagram

86A



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

The radio has the following features:

- plays cassettes,
- plays CDs,
- volume adjustment according to vehicle speed,
- temporary sound cut-offs with the MUTE button,
- bass, treble and sound distribution settings (balance and fader),
- automatic tracking of stations with the RDS* function,
- band selection AM (LW and MW) and FM,
- traffic information (i-traffic).

Setting the time:

For displays not equipped with time setting buttons, proceed as follows:

- Press and hold the satellite time setting button (left-hand button): the hour flashes and can be set with the +/- buttons.
- Briefly press the satellite time setting button (left-hand button): the minutes flash and can be set with the +/- buttons.
- Briefly press the satellite time setting button (left-hand button): exit time setting.

For displays equipped with time setting buttons, proceed as follows:

- Briefly press the right-hand display button to select hours then use the left-hand button to select the desired hour. Press the right-hand button to confirm. Use the same procedure to set the minutes.

*RDS: Radio Data System

RADIO

Role of components

86A

Role of main components:

- Radio: the radio transmits audio signals into the vehicle via speakers.
- Aerial: the aerial is used to receive radio waves from different stations.
- CD changer: used for loading CDs and playing music via the radio.
- Display: the display shows radio information such as the name/frequency of the radio station being listened to, the sound level, as well as different audio settings. If a carphone is fitted to the vehicle, information from this will appear on the display.
- Speakers: produce sound from the radio. There are 6 enclosures (2 at the front, 2 at the rear and 2 front speakers).
- Steering wheel control: various radio functions can be controlled from the steering wheel.

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.

Safe modes:

- The volume is automatically turned down or the display shows "HI TEMP" if the air temperature around the radio is too high.

For repairs or fault finding, the receiver is fitted with a test menu (see **radio self-test procedure**).

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

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.

RADIO FUNCTION

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

- manual mode (MANU),
- preset mode (PRESET),
- alphabetical mode (LIST).

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 activate the function, select the desired volume adjustment curve in **expert** mode (press and hold the **source** button until you hear a bleep): **SPEED 5** for maximum increase, 0 to switch off the increase function.

*RDS: Radio Data System

2 methods for recovering the pre-code (1 letter and 3 digits):**1 For PN type radios:**

The pre-code is obtained by removing the **RECEIVER** and noting the four characters on the barcode that follow the letter T (see photo no. 114936).

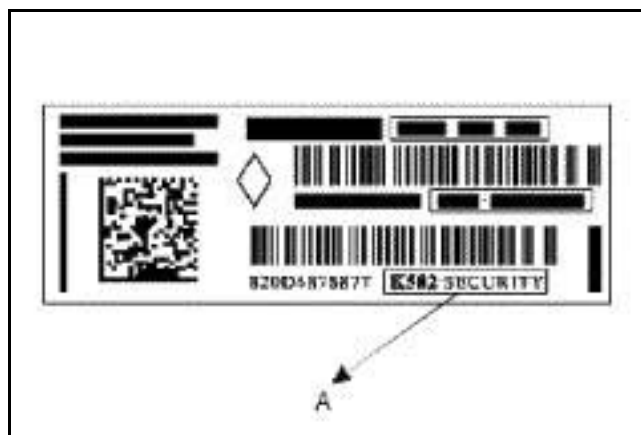
On older versions, note the series number at **(B)** and the pre-code after the letter T at **(C)**.

2 For NR type radios:

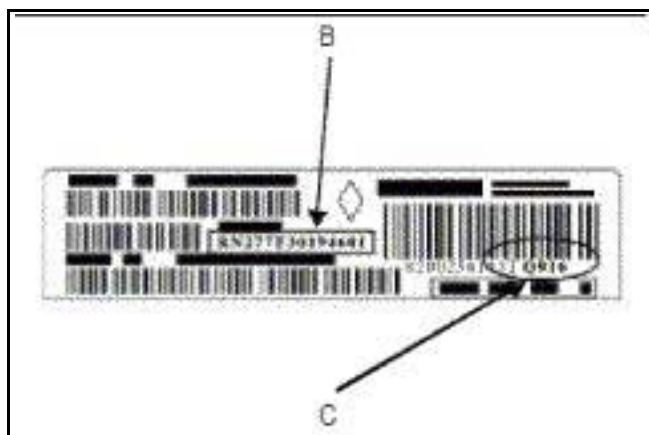
The pre-code is recovered **without removal**, by applying the following procedure:

- Switch on the radio.
- Press and hold buttons 1 and 6 simultaneously for **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 no. 114937).



114937



114936

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. On the photo of the radio, the code is RN277F30194601 (see photo 114936 (B)).

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.

RADIO

Anti-theft code

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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.

Entering the code using 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 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 bleeps).

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 sent by the Techline.

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:

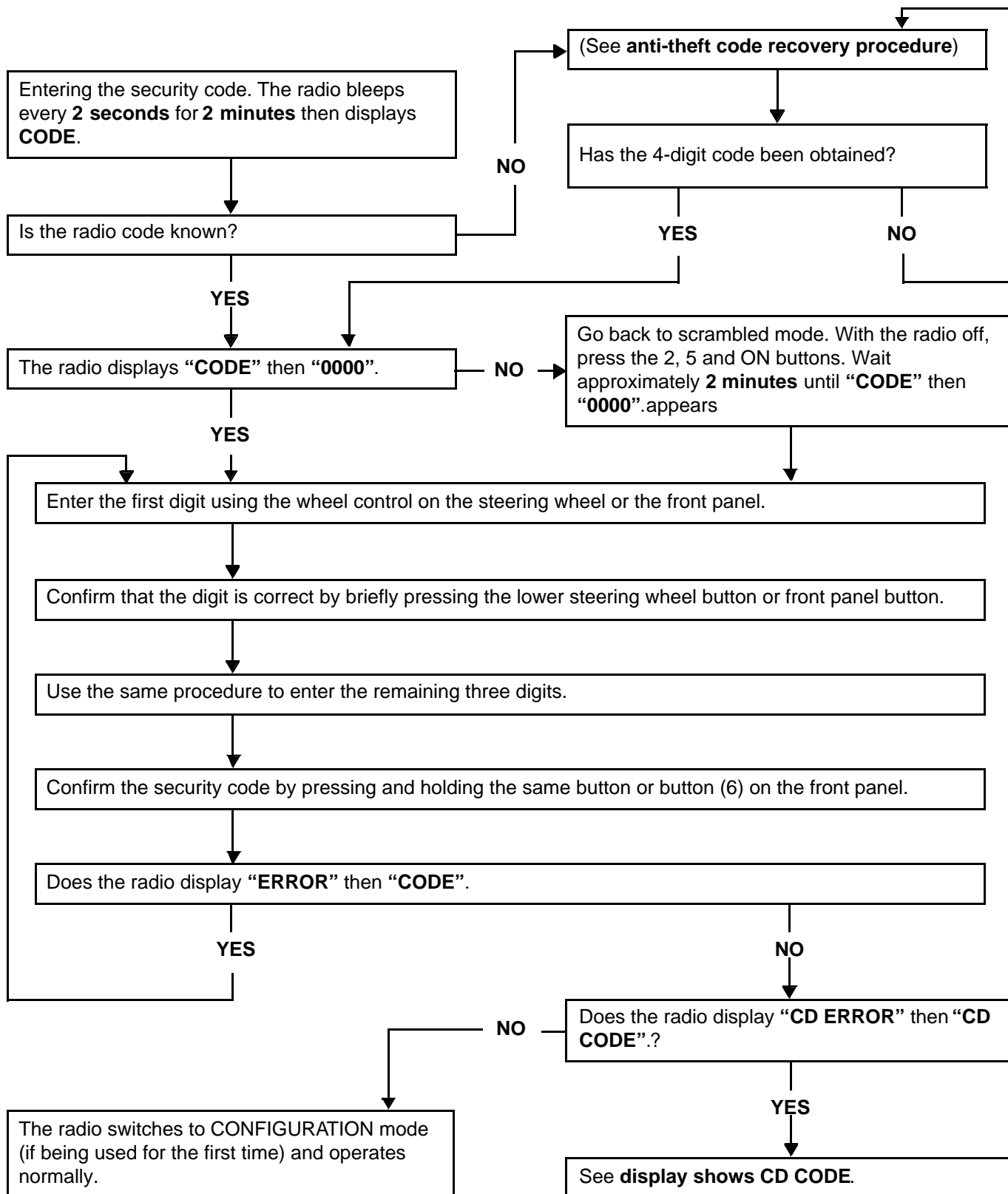
The radio will operate for approximately **2 minutes** in scrambled mode without the code having been entered (with regular warning bleeps).

RADIO

Anti-theft code

86A

THE DISPLAY SHOWS "CODE" OR "0000"

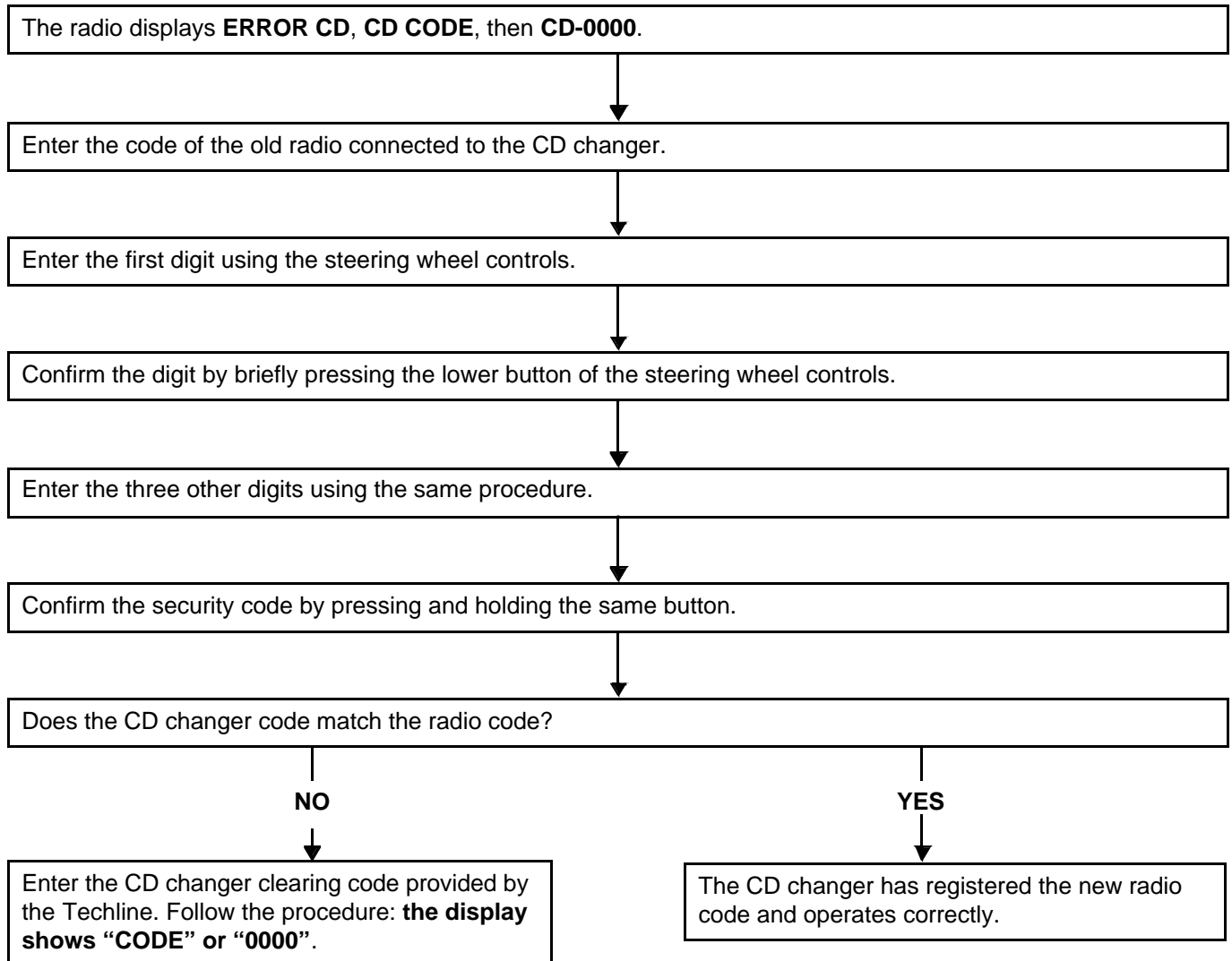


RADIO

Anti-theft code

86A

THE DISPLAY SHOWS "CD CODE"



CONFIGURATIONS

NOTE:

To select the zone in which the Tuner is to be used, press buttons **2** and **5** simultaneously while turning the power on. Then wait approximately **2 minutes**. Enter the four digit code and then:

- 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 switch to setting mode (**Expert** mode), press and hold (4 seconds) the **source** (SRC) button until you hear a beep. 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 disable regulation),
- **Loudness** mode activation.

PN range:

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

RADIO

Connections

86A

To allocate the tracks for the different functions connected to the radio (CD changer, steering wheel control, display, aerial), refer to the wiring diagram Technical Note for the New Twingo.

Radio: see Wiring Diagrams Technical Note, New Twingo, code **261**.

CD changer: see Wiring Diagrams Technical Note, New Twingo, code **1272**.

Display: see Wiring Diagrams Technical Note, New Twingo, code **653**.

Steering wheel control: see Wiring Diagrams Technical Note, New Twingo, code **325**.

Aerial: see Wiring Diagrams Technical Note, New Twingo, code **886**.

RADIO

Self-test procedure

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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 self-test procedure mode of the new generation radios (NR4/5) enables certain main functions to be tested using the combination of buttons 1, 6 and i. The messages will be displayed in the following way:

- **Radio pre-code (one letter/three digits) displayed to avoid the need to remove the radio,**
- speaker test with two beeps (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.

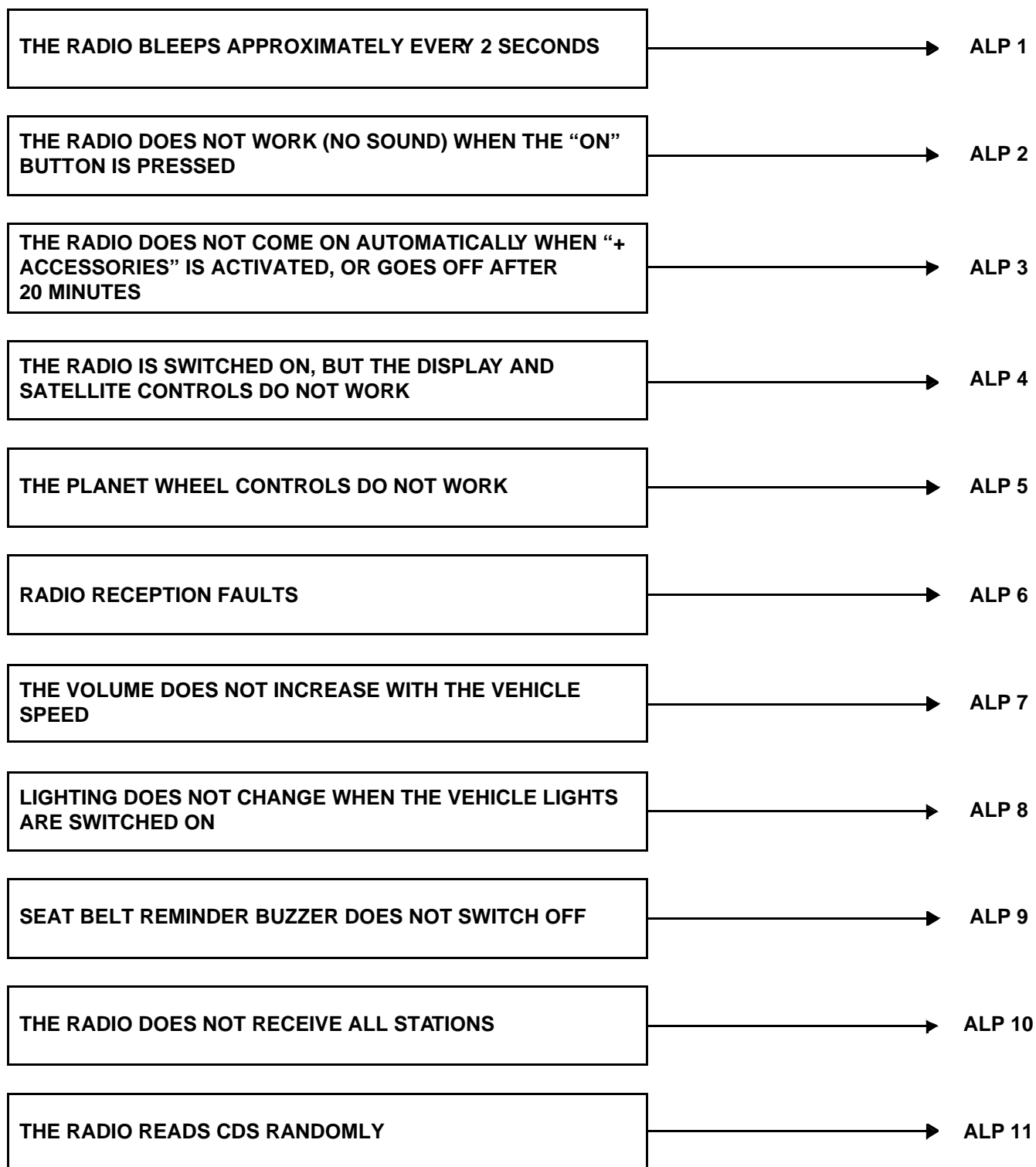
Note:

The source usage times in 1/6ths of an hour is also displayed (Tuner (H09)/CD (H10)/cassette (H11)/CD changer (H12)/auxiliary (13)/MP (H14)/Total (H15)).

RADIO

Radio fault finding: Customer complaints

86A

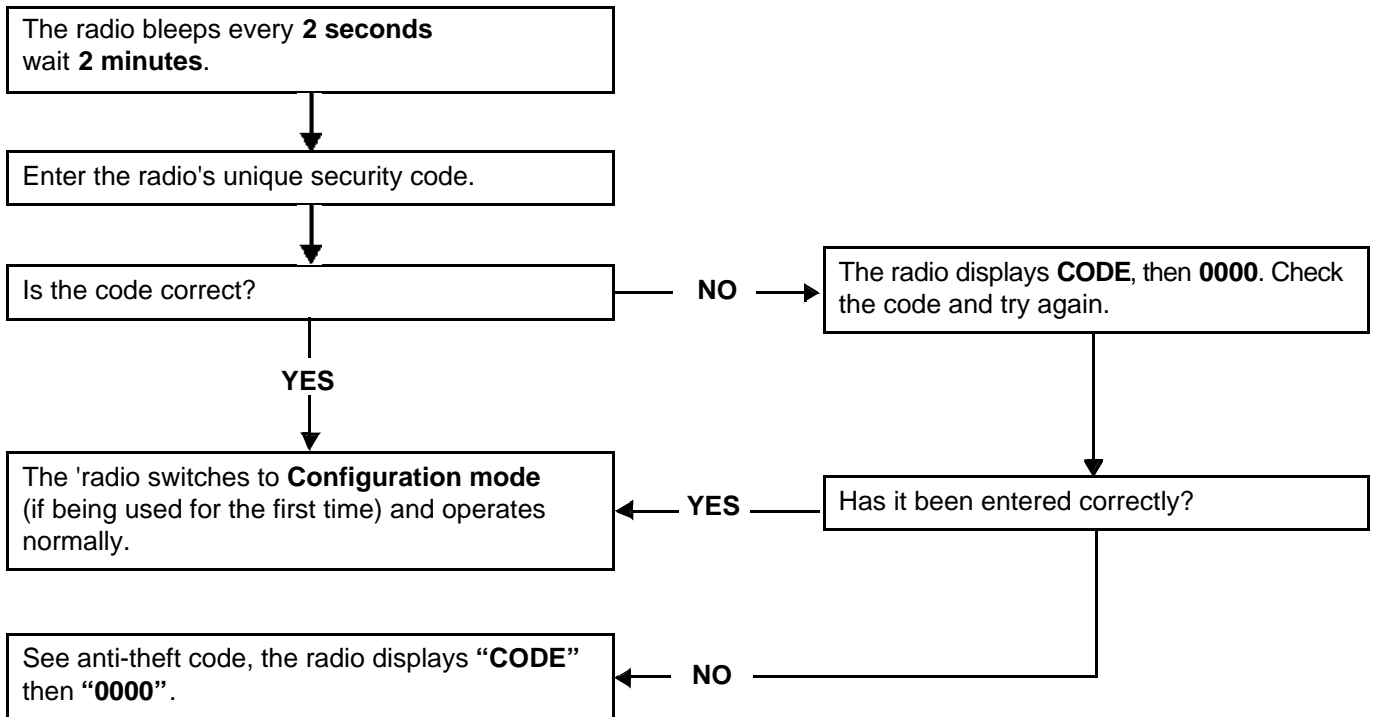


RADIO

Fault finding chart

86A

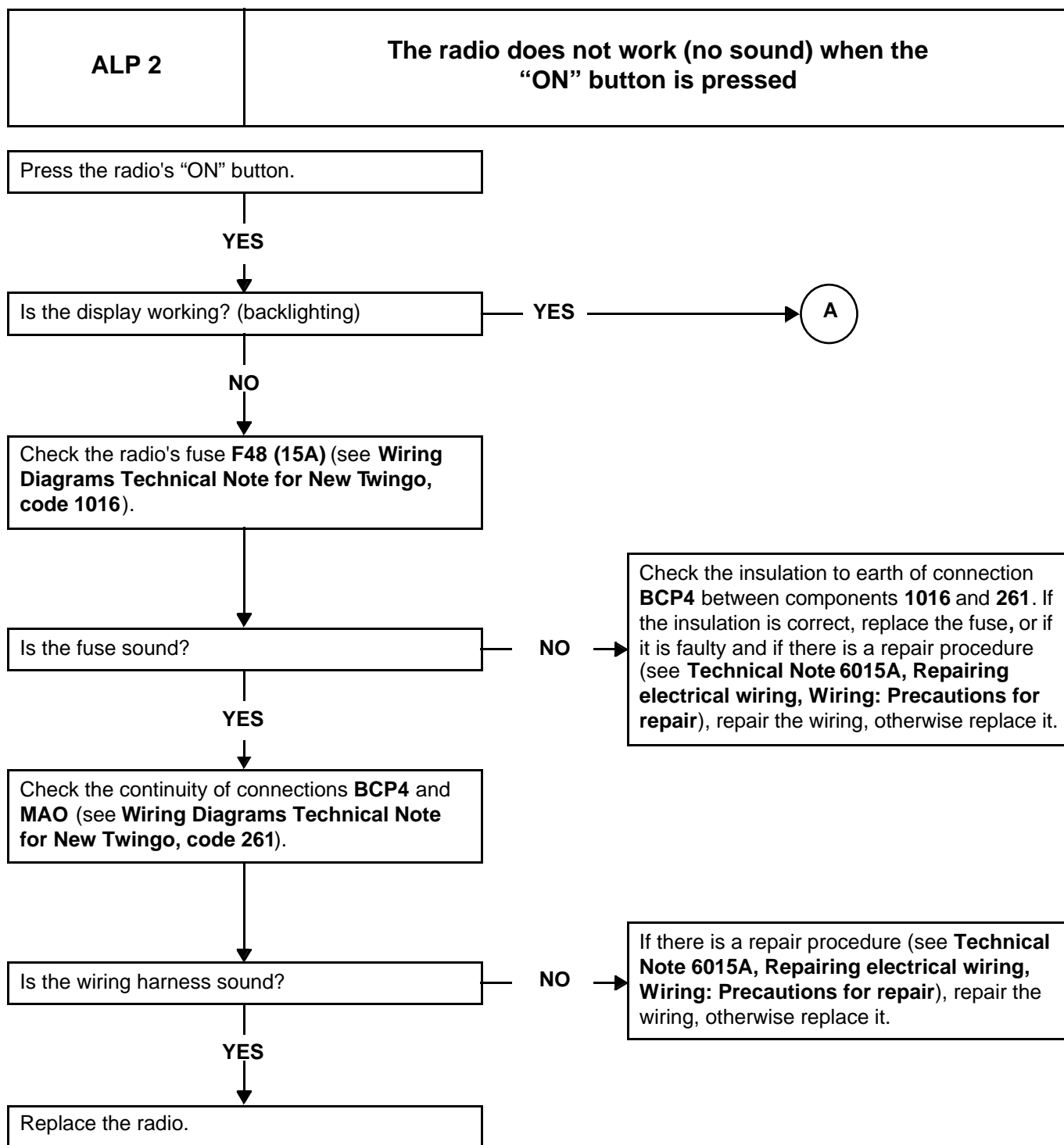
ALP 1	The radio bleeps approximately every 2 seconds
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RADIO

Fault finding chart

86A

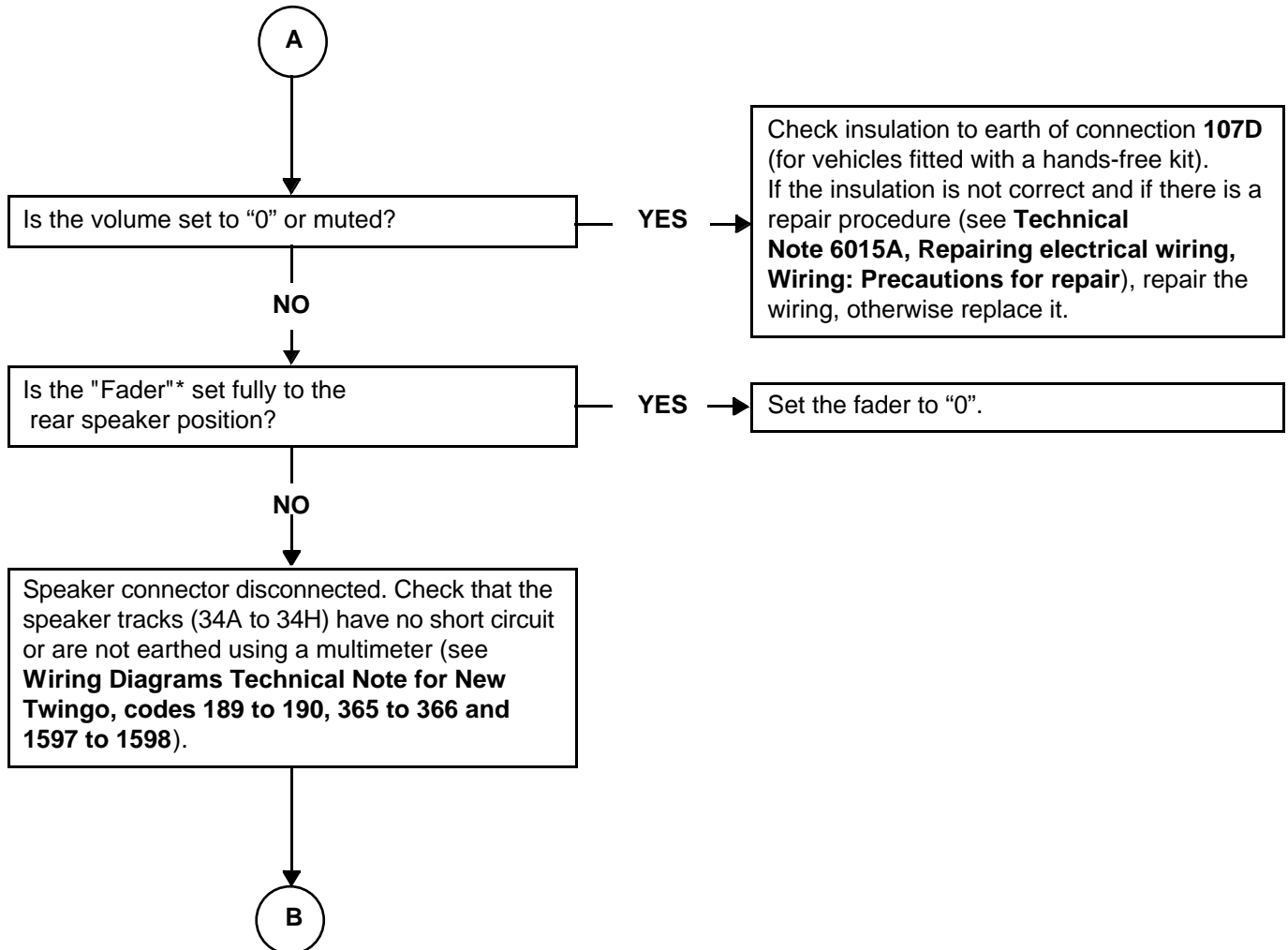


RADIO

Fault finding chart

86A

ALP 2 CONTINUED 1	
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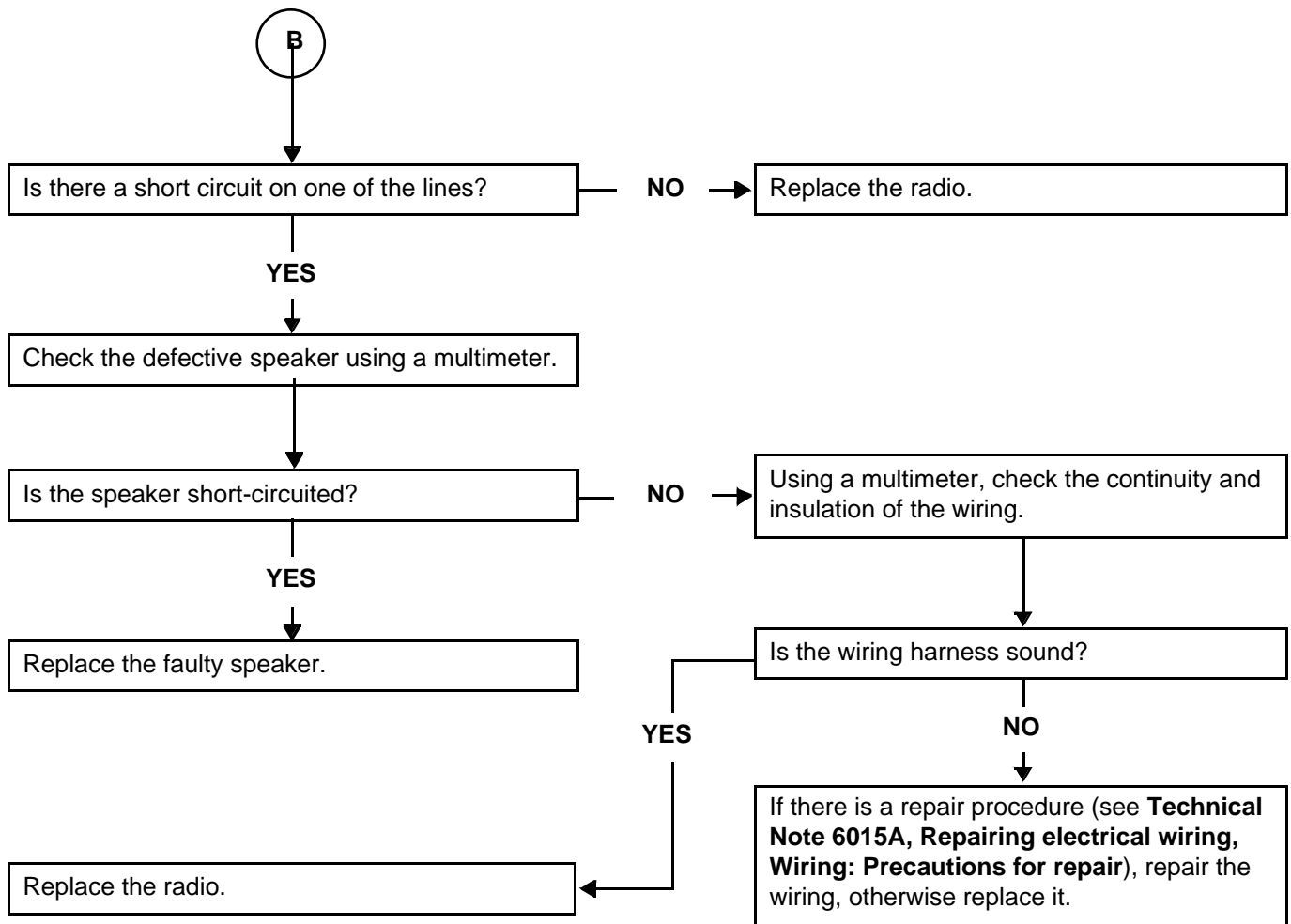
*FADER: control used to distribute the sound between the front and rear of the vehicle.

RADIO

Fault finding chart

86A

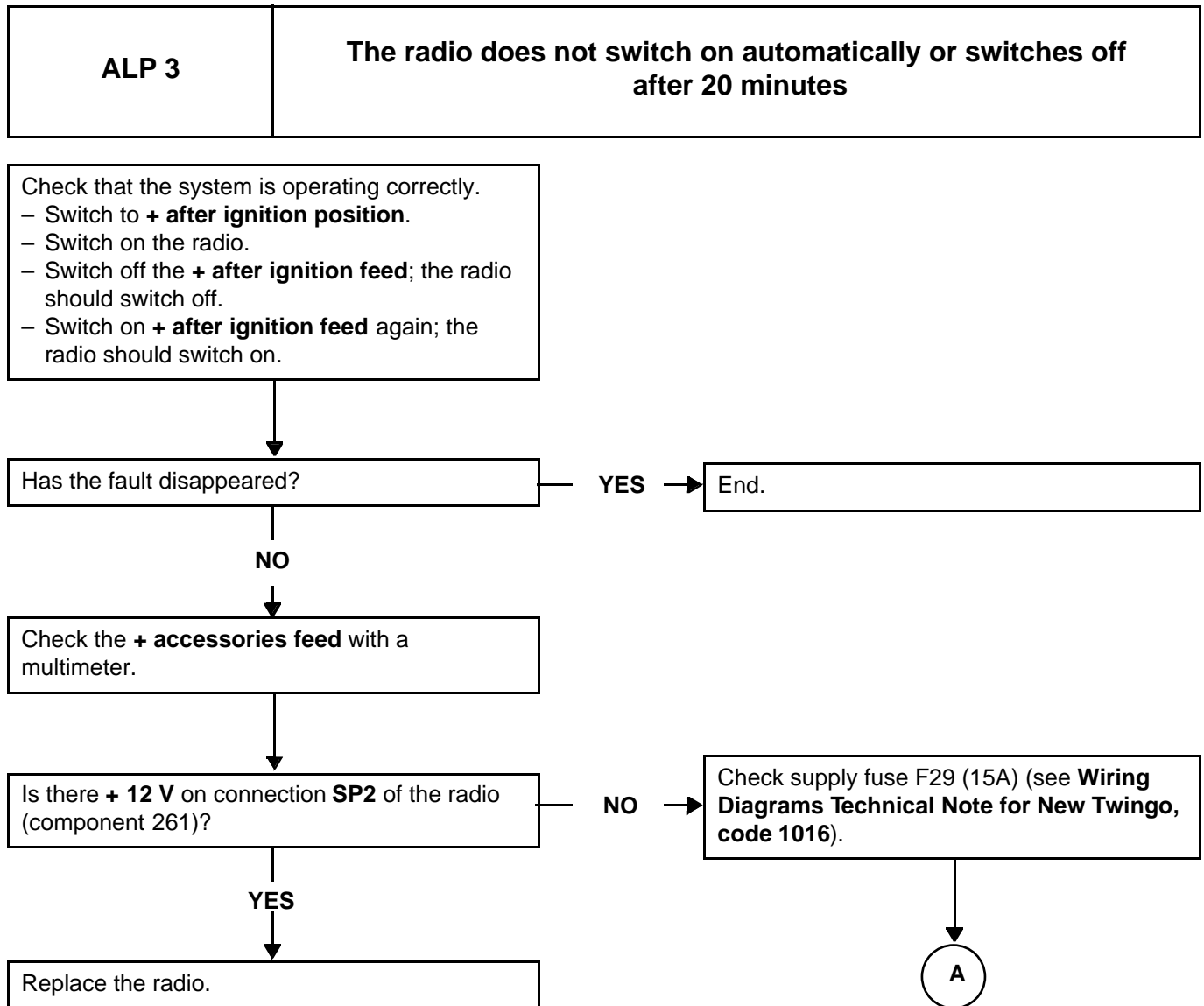
ALP 2 CONTINUED 2	
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RADIO

Fault finding chart

86A

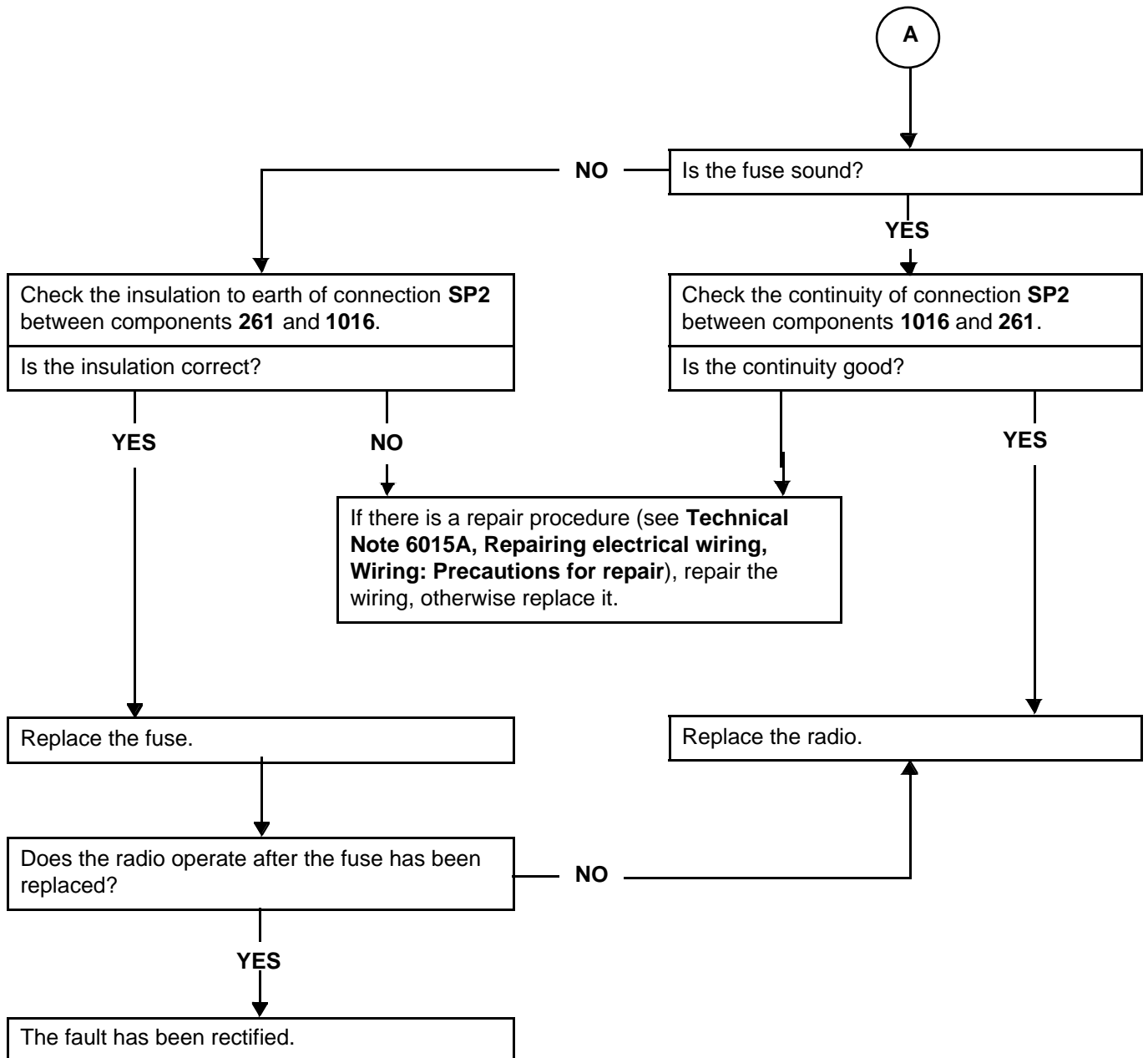


RADIO

Fault finding chart

86A

ALP 3 CONTINUED	
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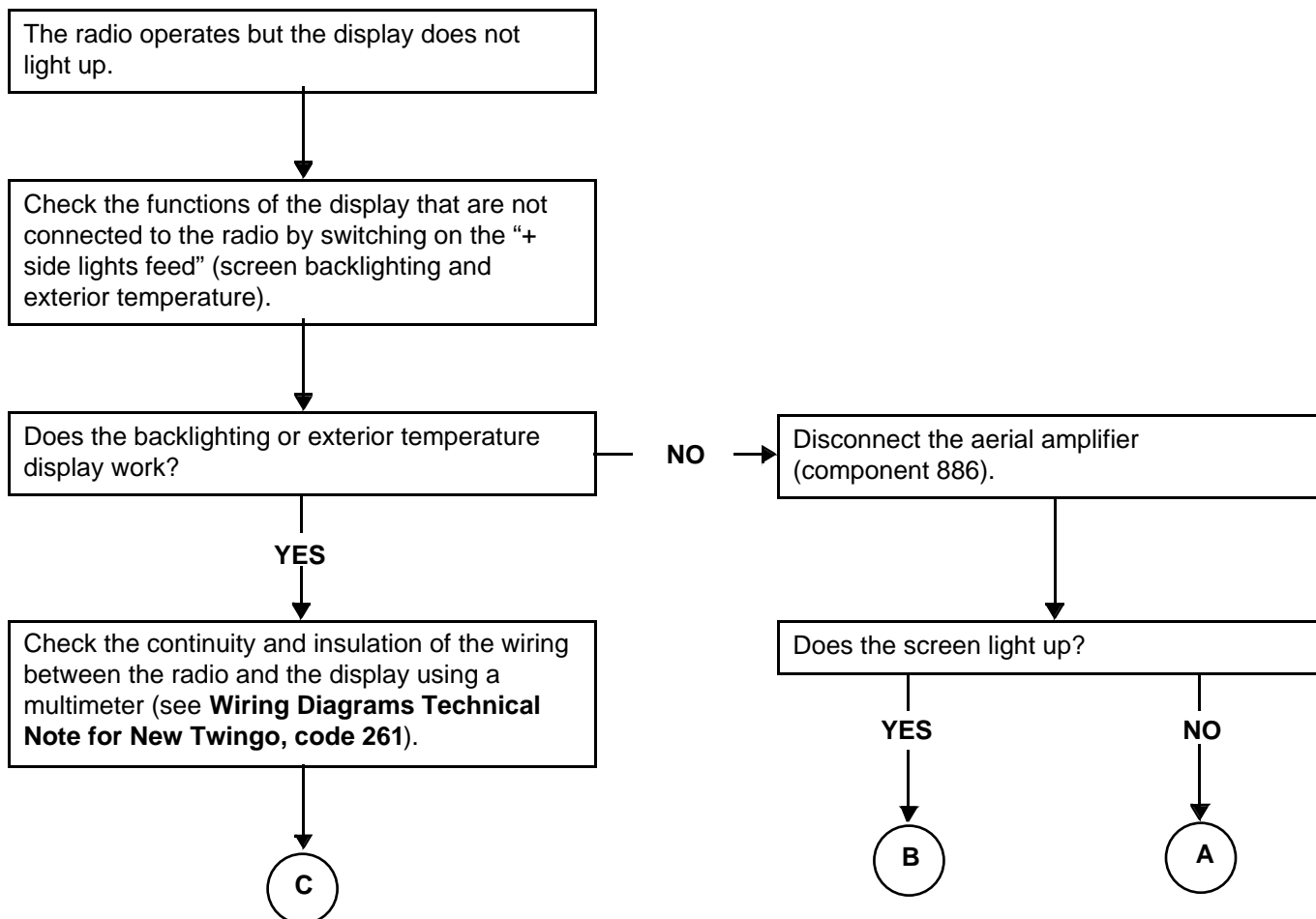
RADIO

Fault finding chart

86A

ALP 4	The radio is switched on, but the display and control satellite do not operate
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NOTES	For radio versions with remote display.
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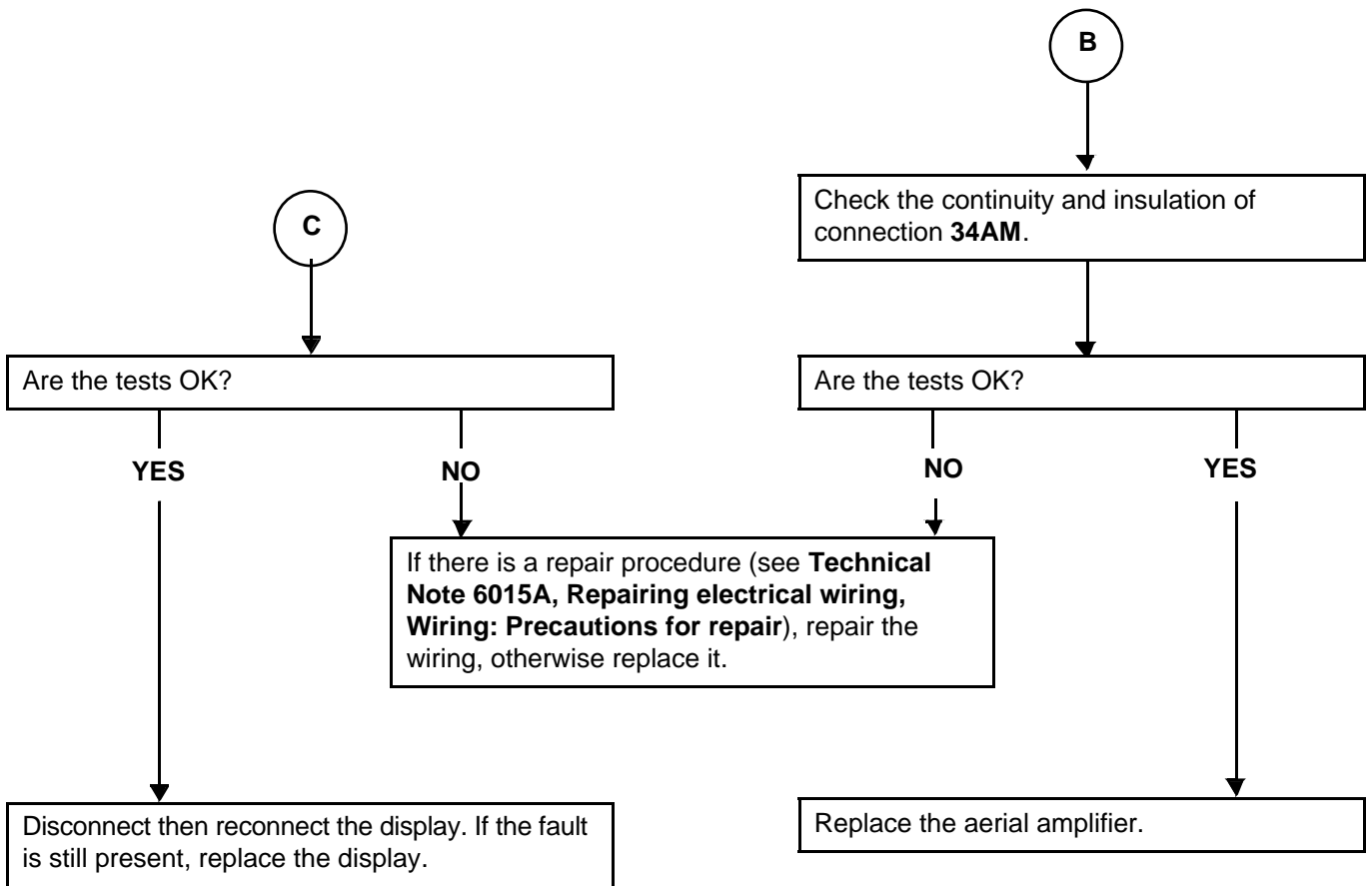


RADIO

Fault finding chart

86A

ALP 4 CONTINUED 1	
NOTES	For radio versions with remote display.

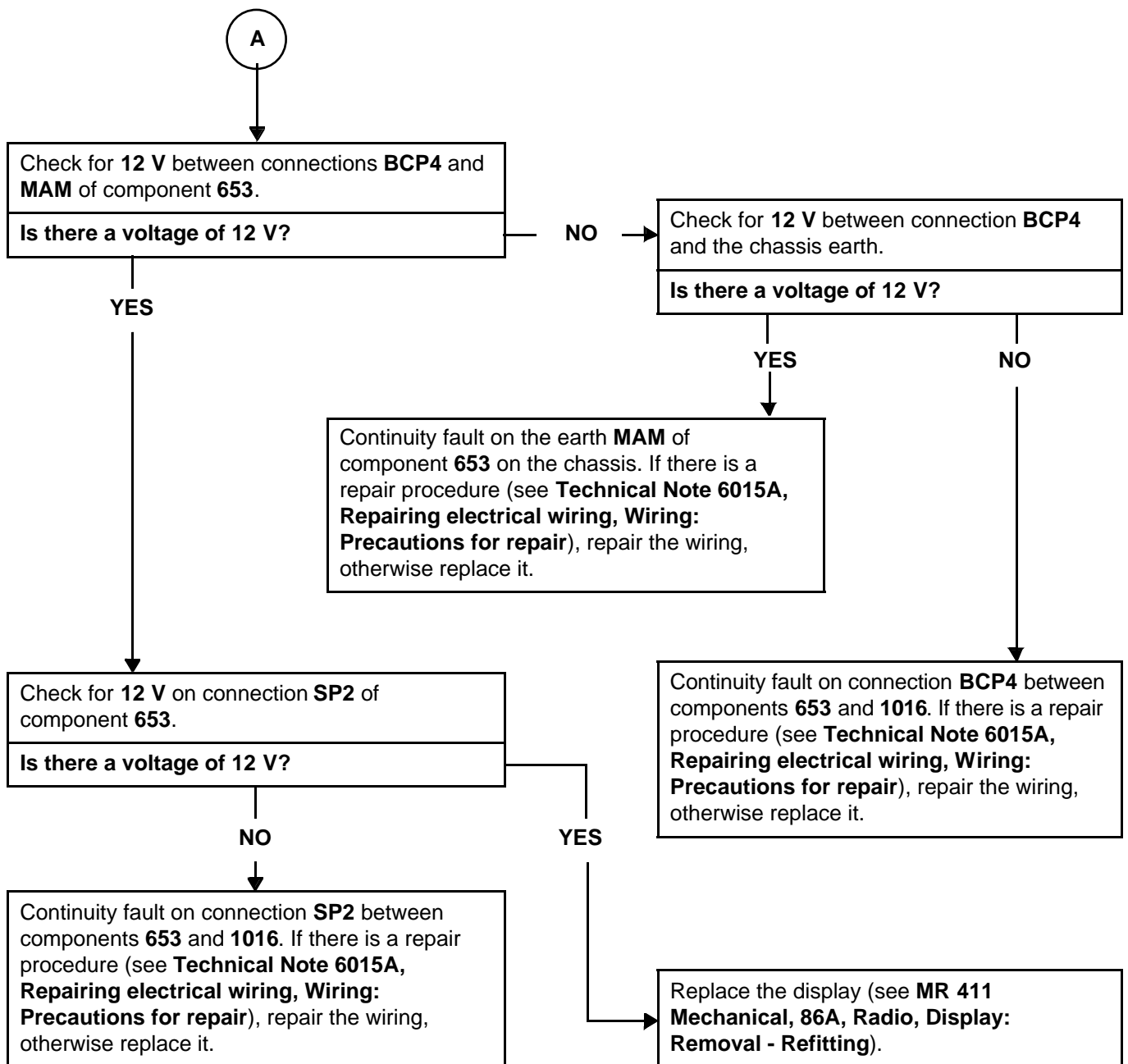


RADIO

Fault finding chart

86A

ALP 4 CONTINUED 2	
NOTES	For radio versions with remote display.



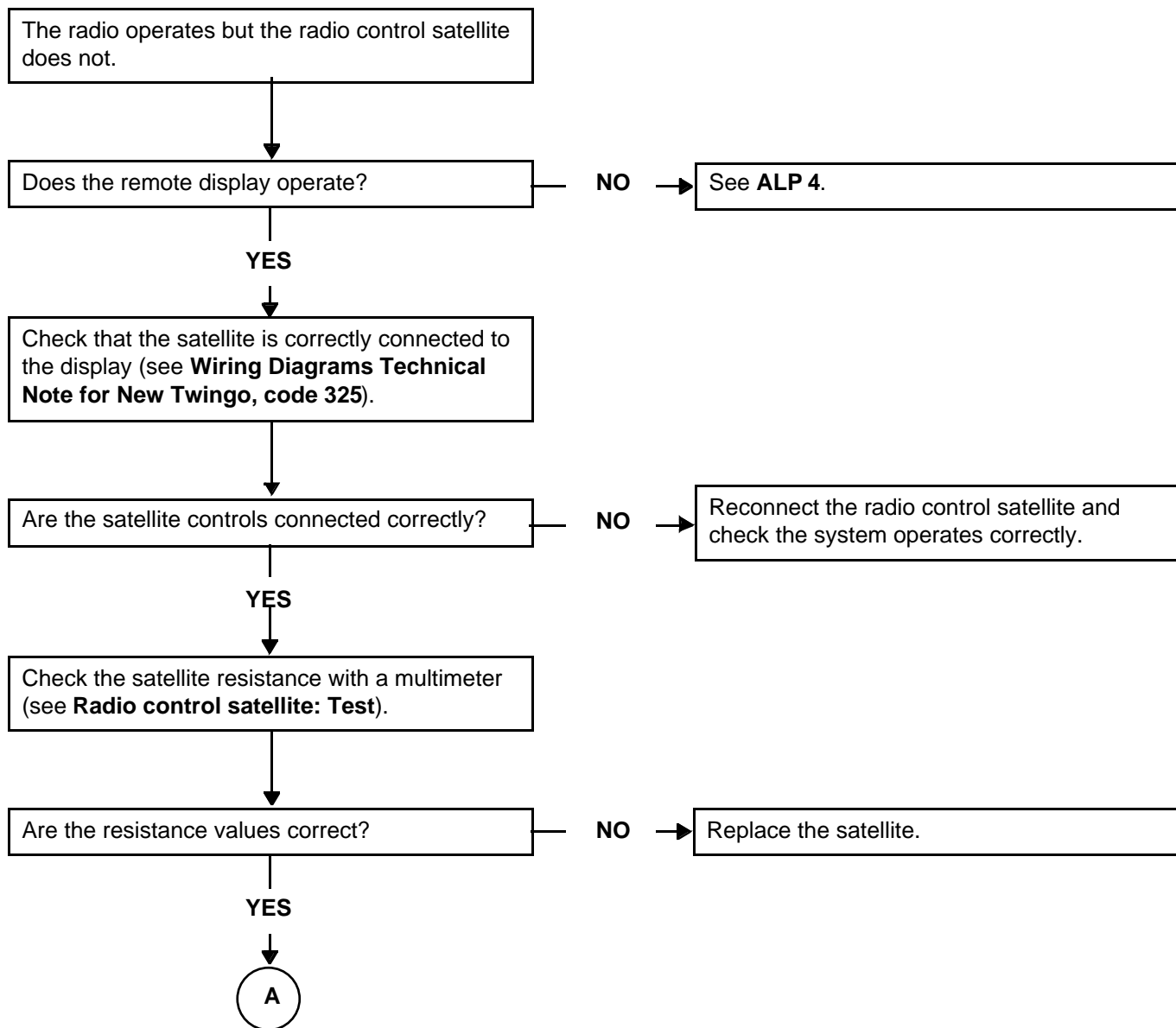
RADIO

Fault finding chart

86A

ALP 5	The satellite controls do not work
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NOTES	For radio versions with remote display.
--------------	------------------------------------------------

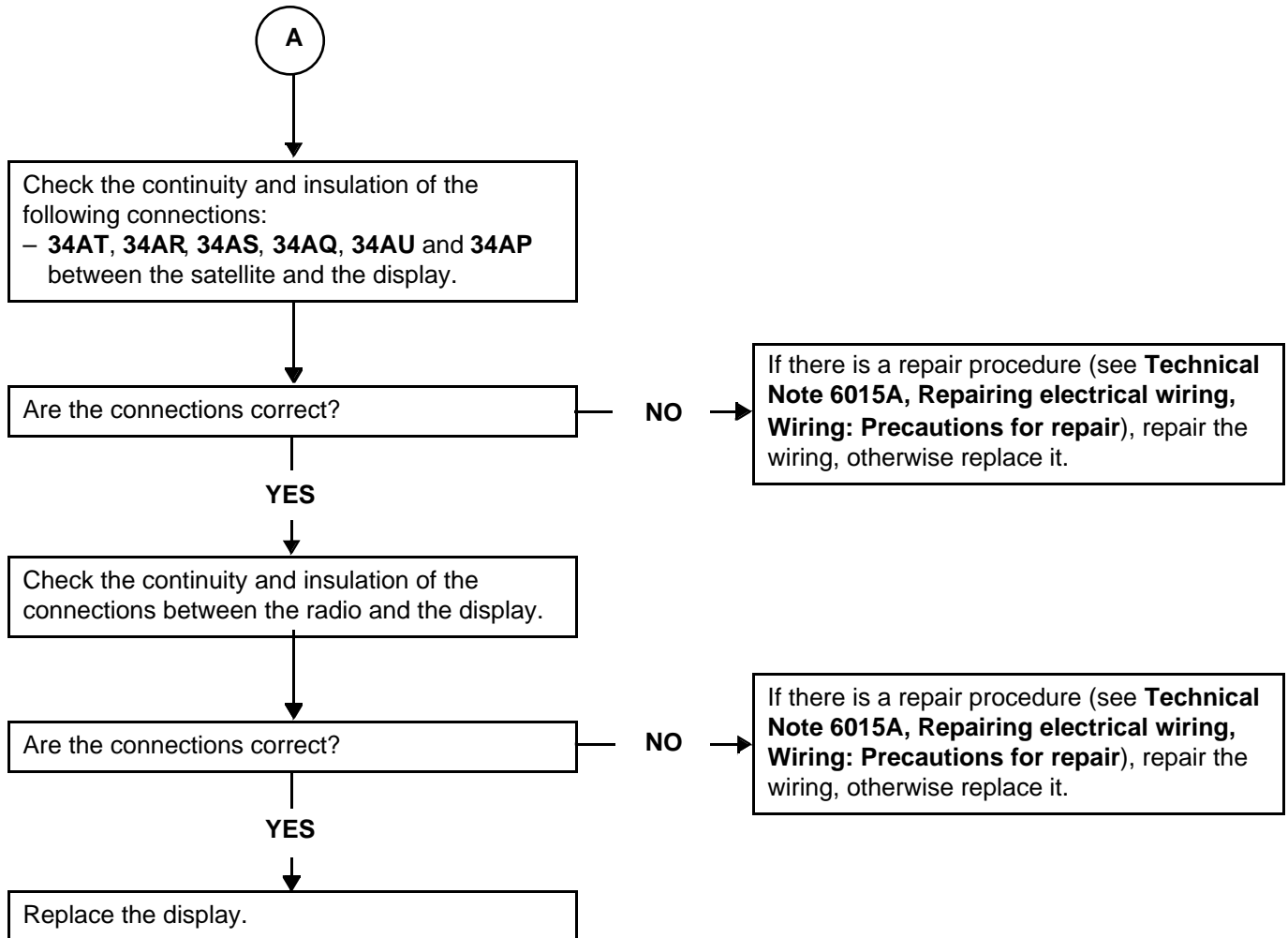


RADIO

Fault finding chart

86A

ALP 5 CONTINUED	
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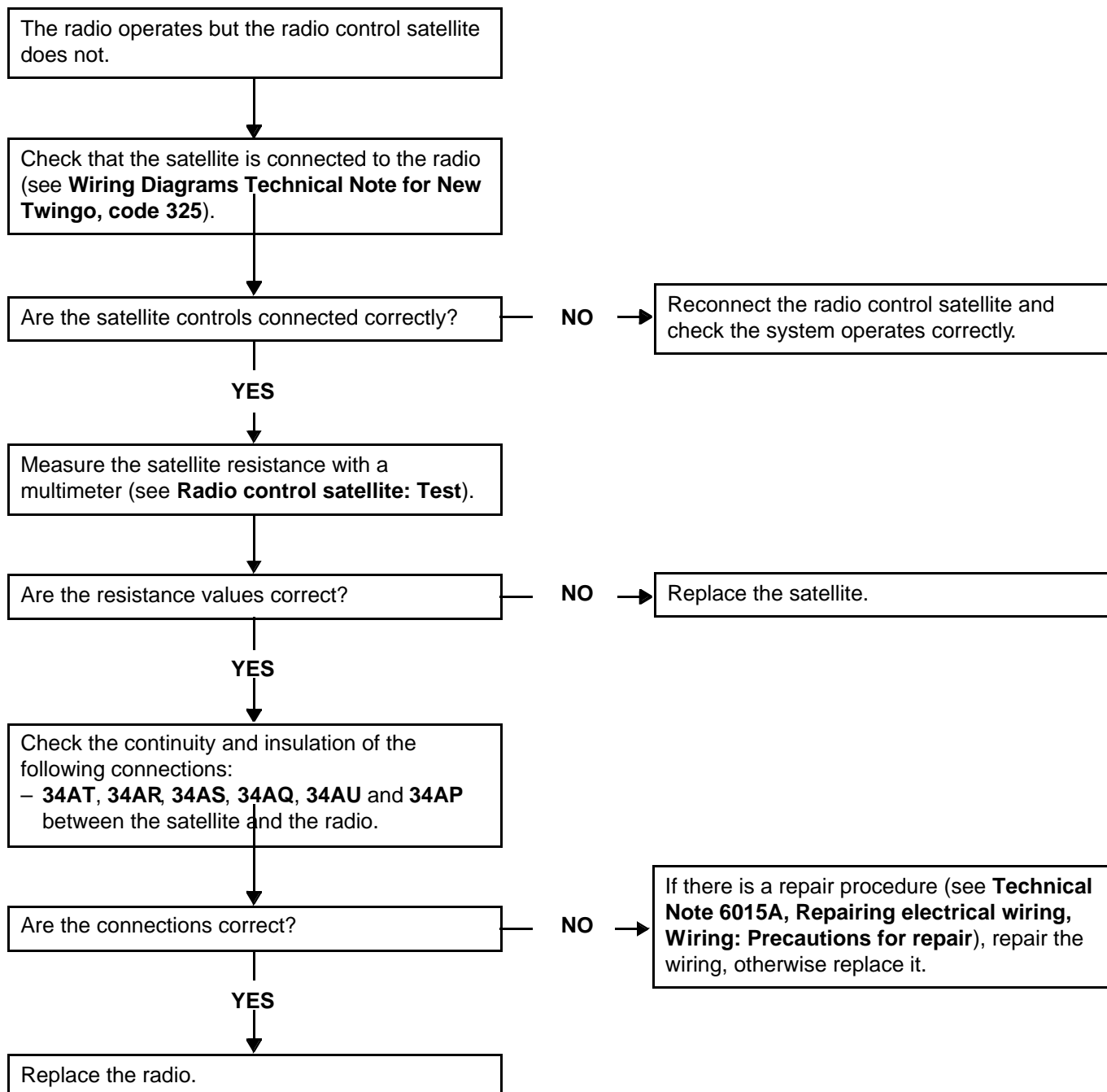
RADIO

Fault finding chart

86A

ALP 5	The satellite controls do not work
--------------	-------------------------------------------

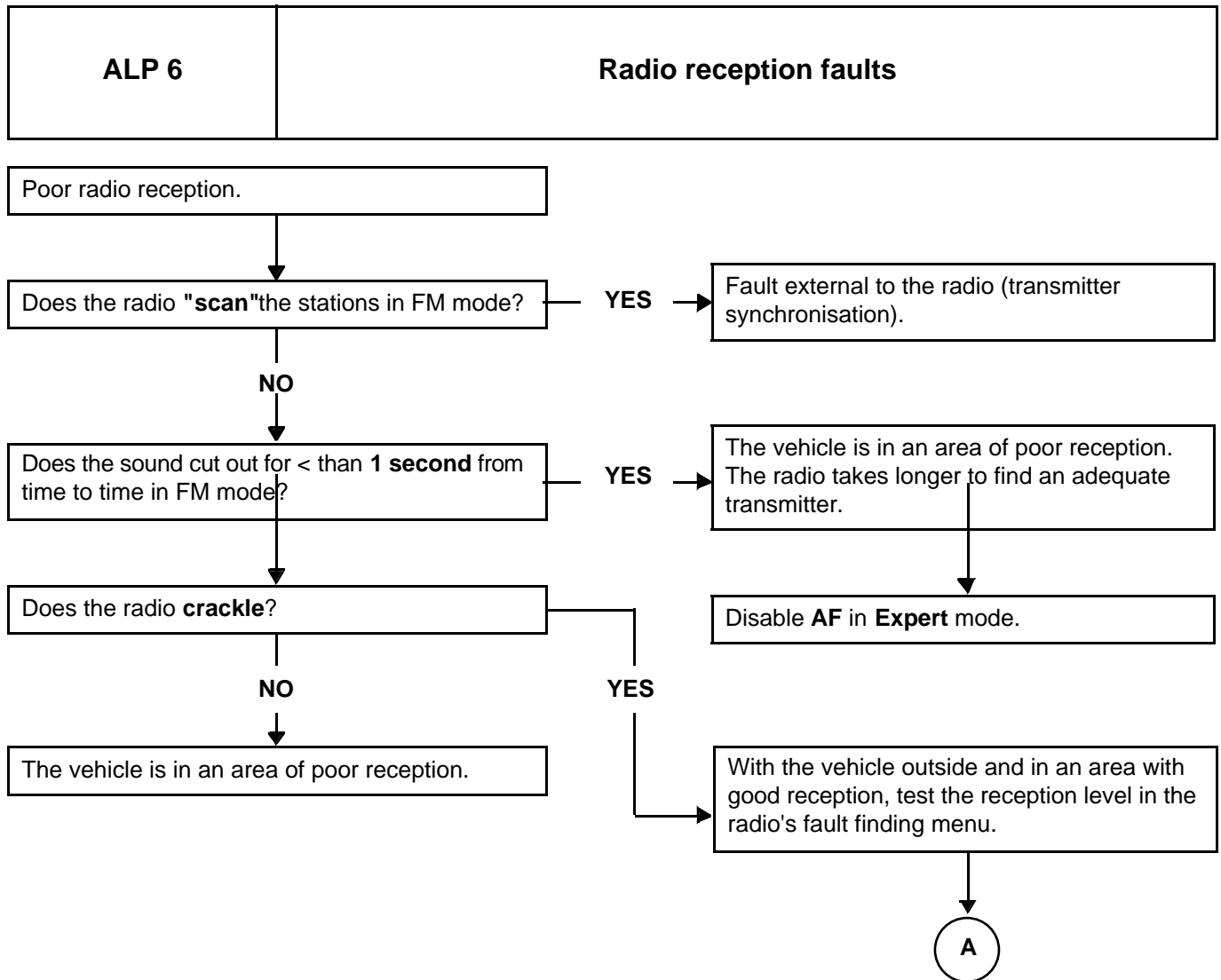
NOTES	For radio versions without remote display.
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RADIO

Fault finding chart

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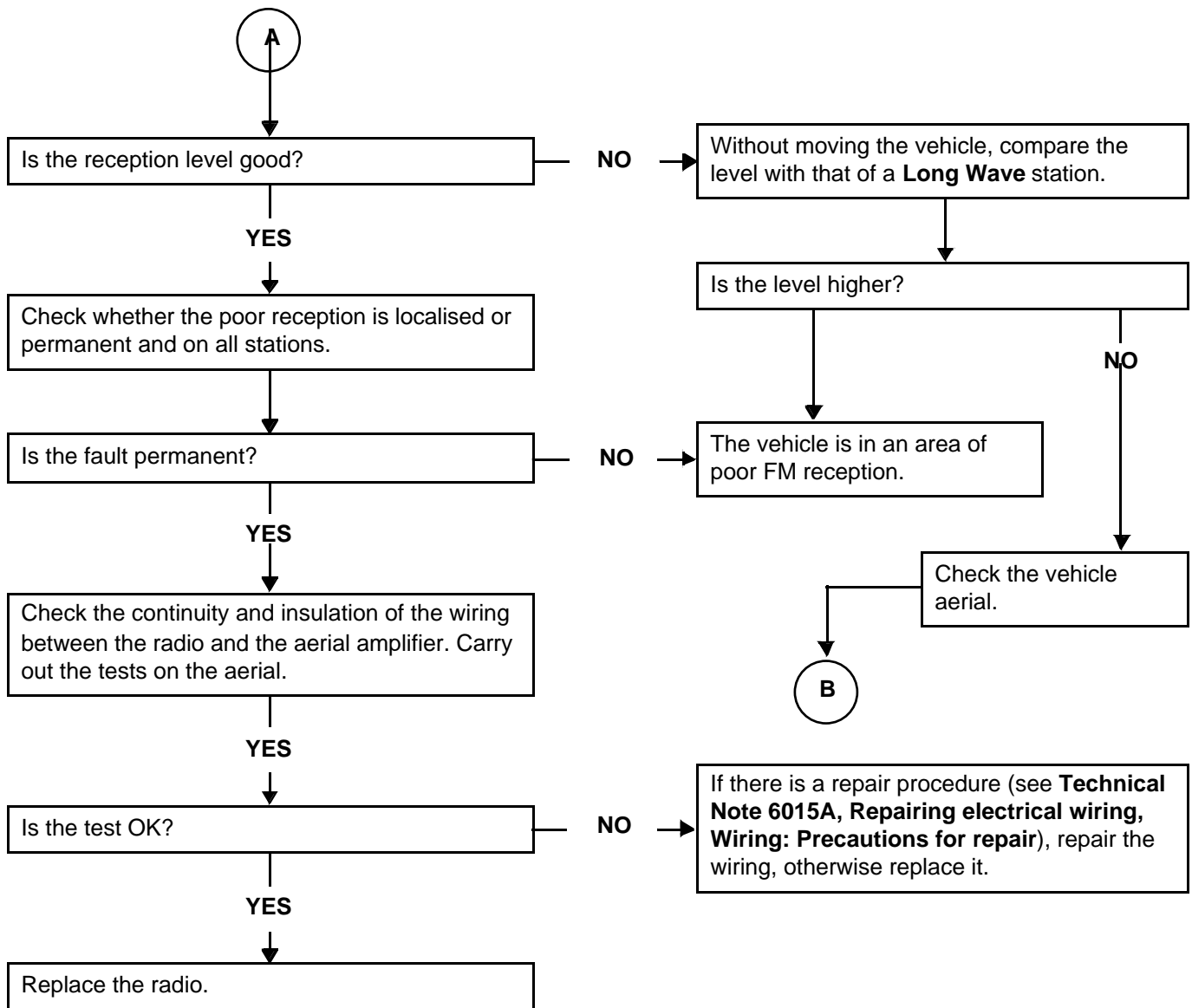


RADIO

Fault finding chart

86A

ALP 6 CONTINUED 1	
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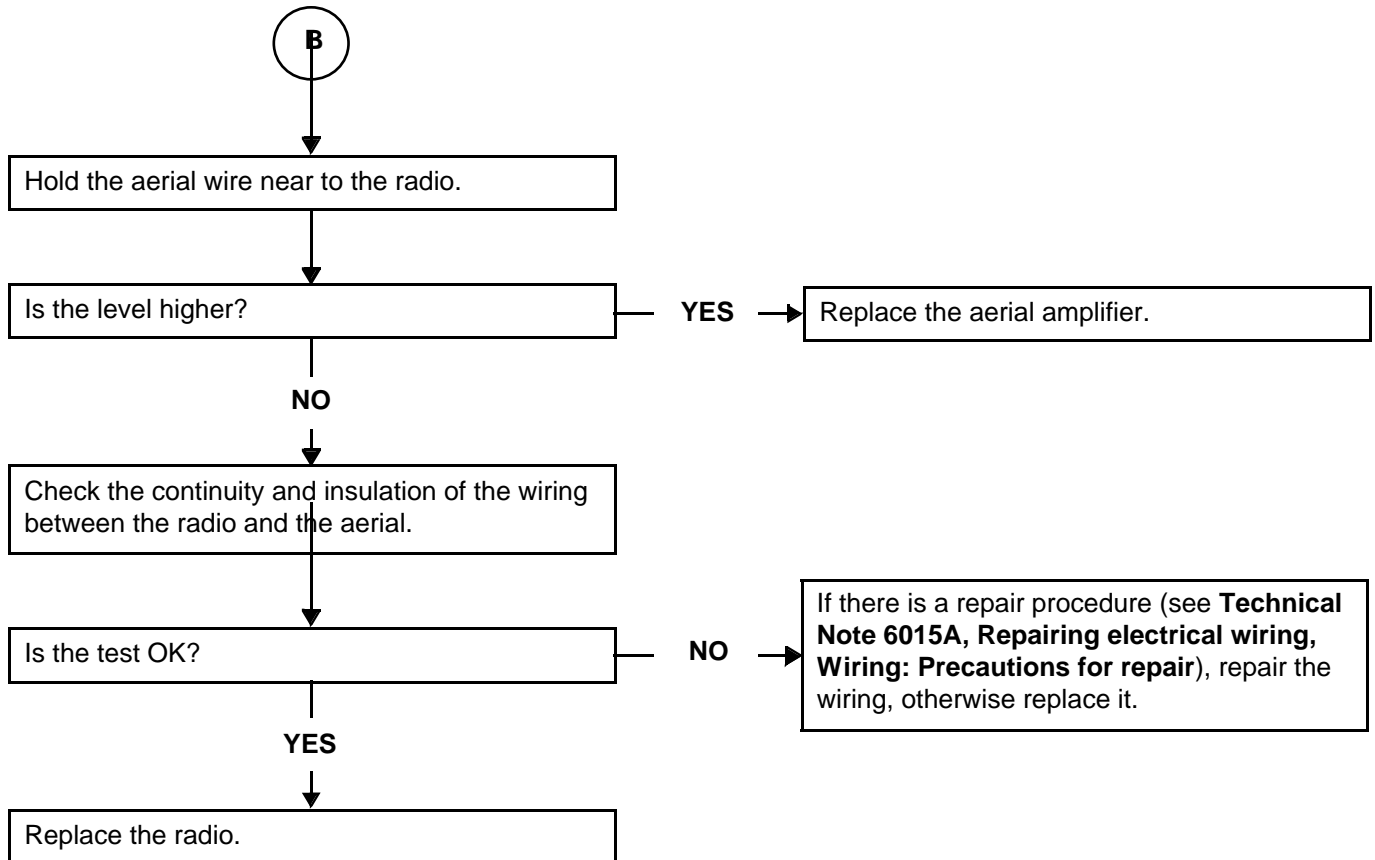


RADIO

Fault finding chart

86A

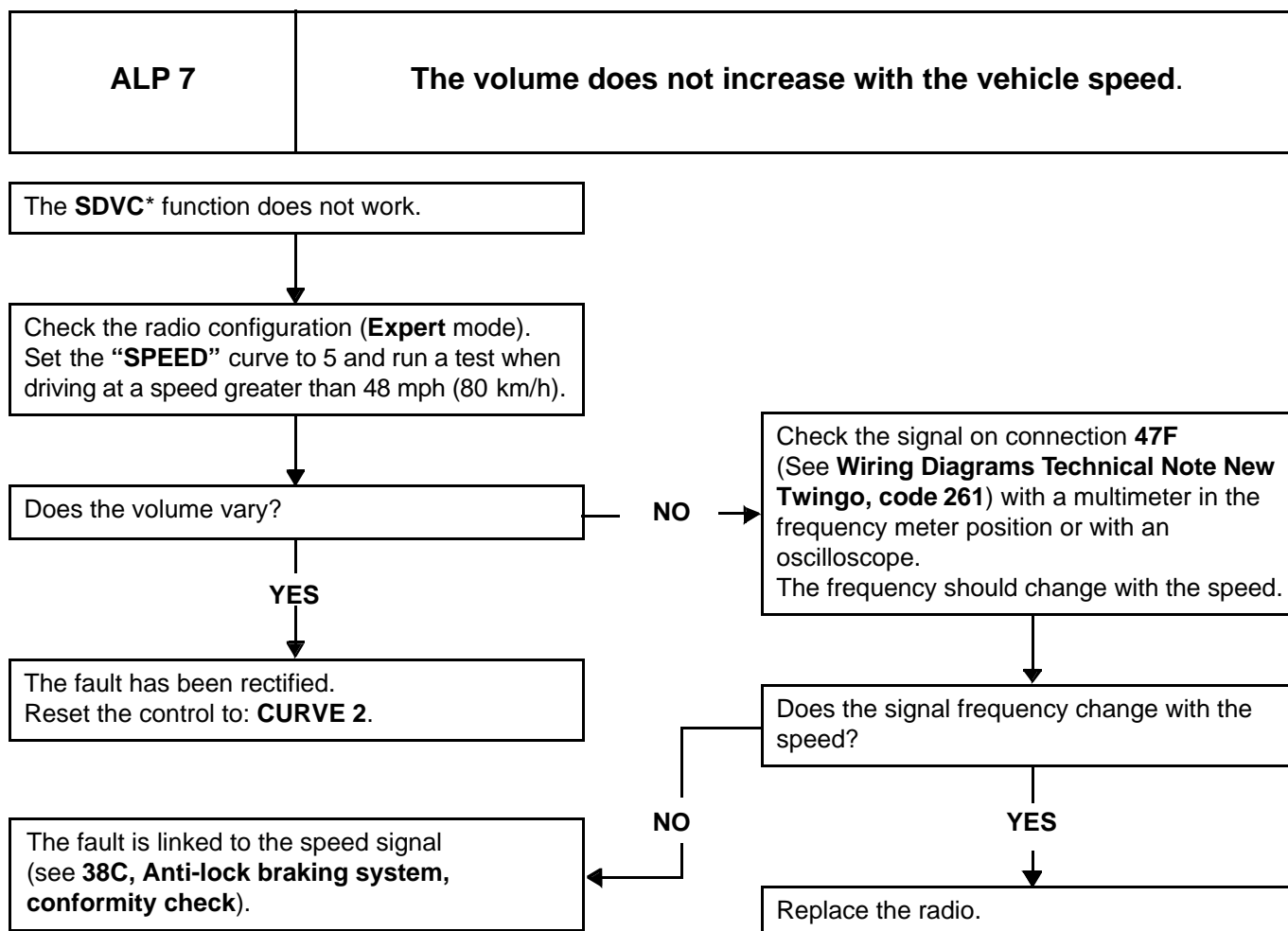
ALP 6 CONTINUED 2	
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RADIO

Fault finding chart

86A

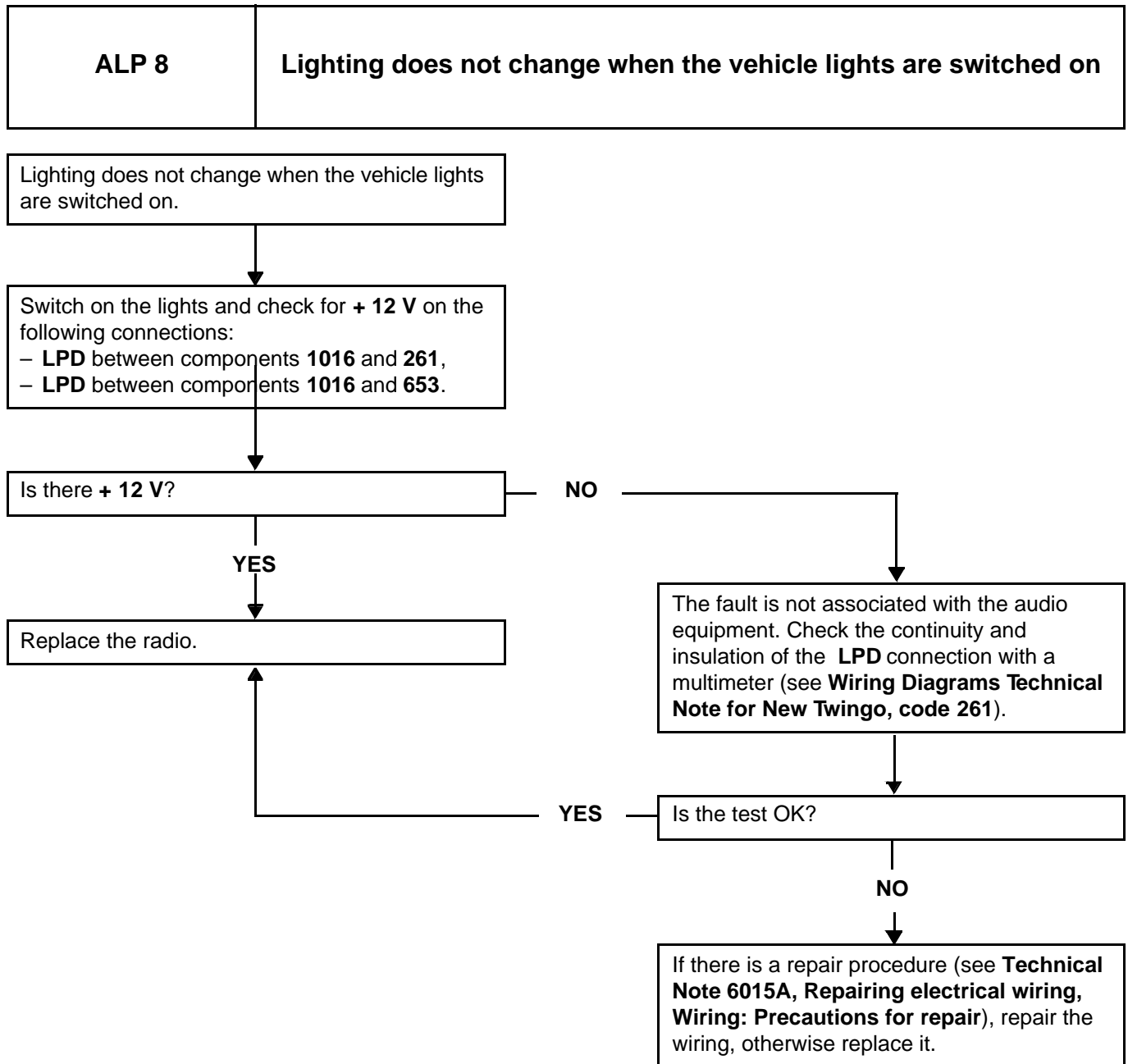


*SDVC: Speed-dependent volume control.

RADIO

Fault finding chart

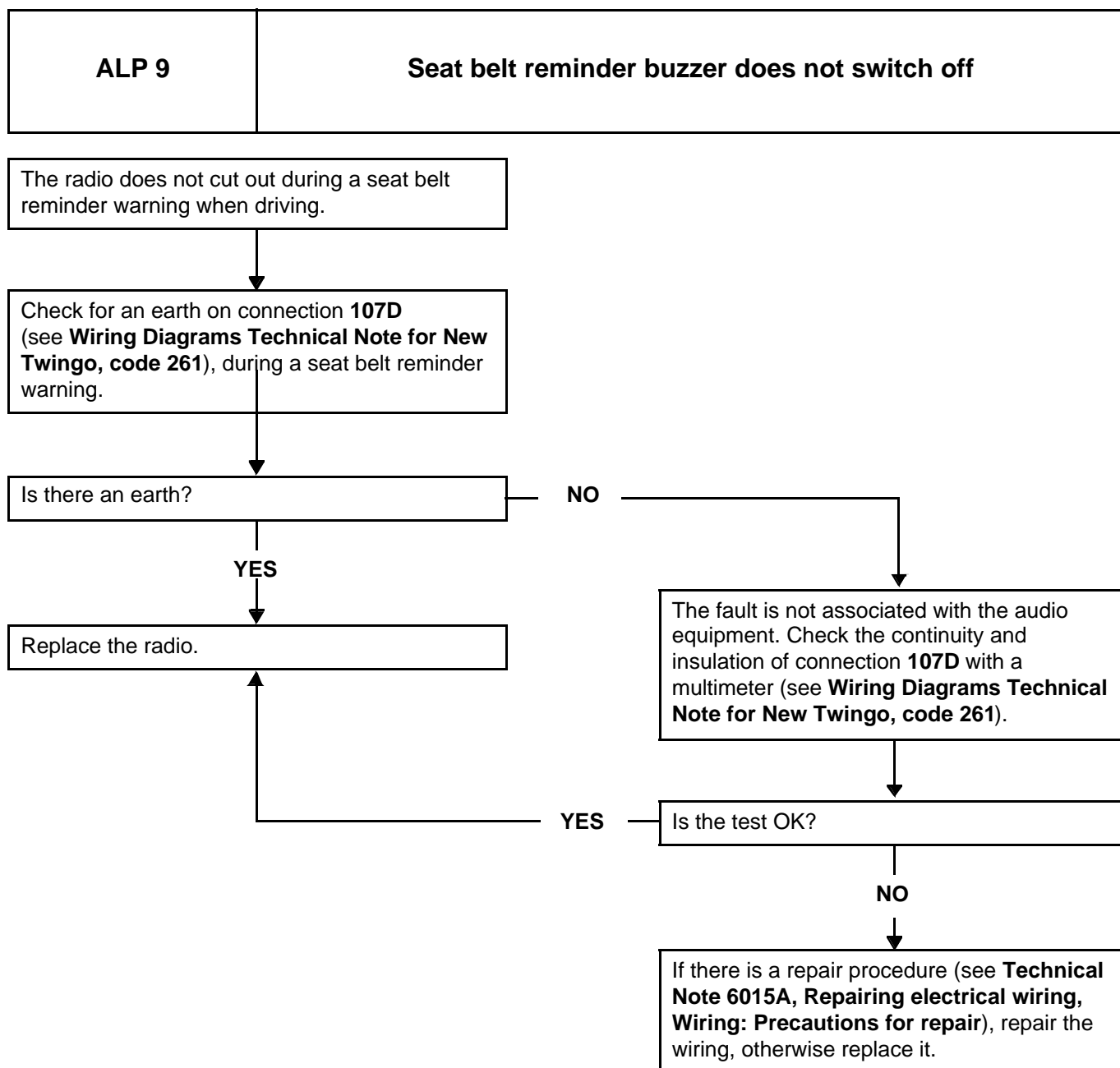
86A



RADIO

Fault finding chart

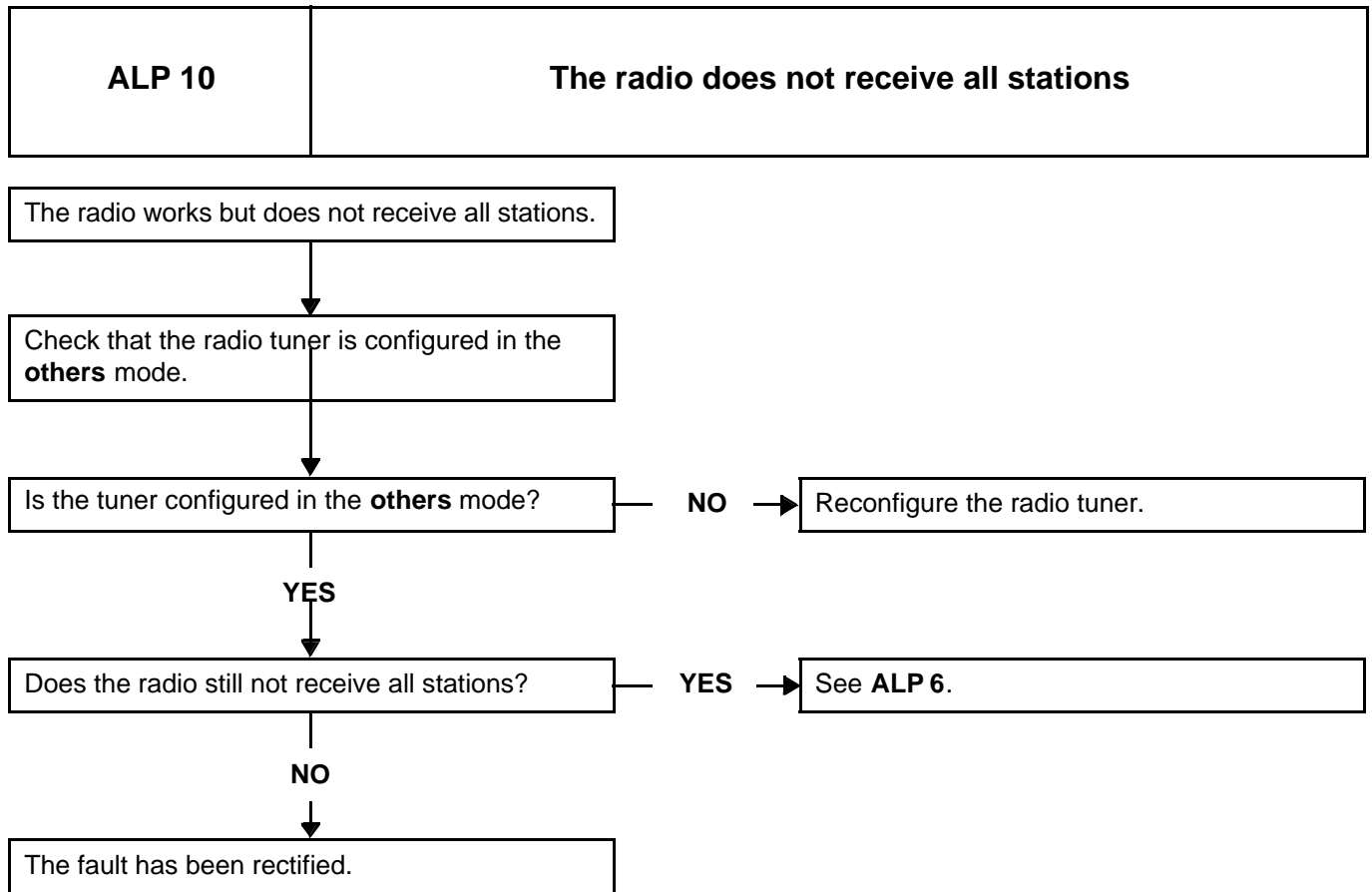
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RADIO

Fault finding chart

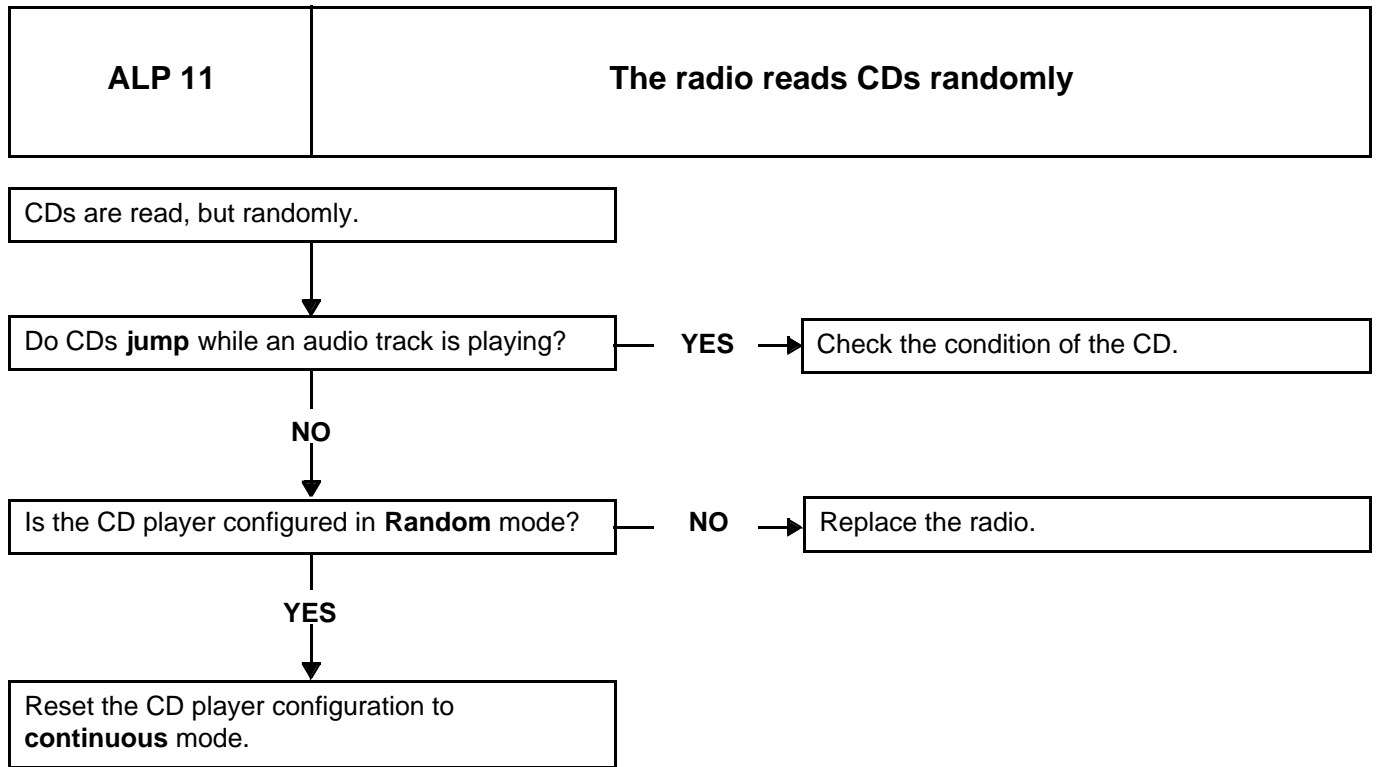
86A



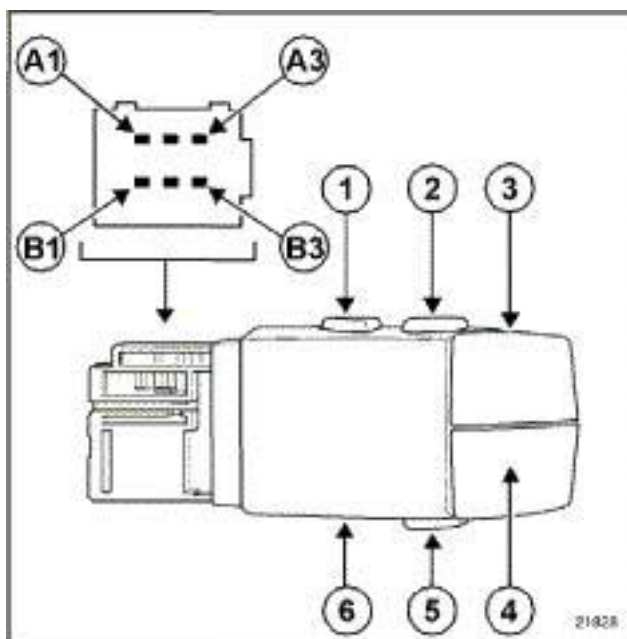
RADIO

Fault finding chart

86A



Check* the radio control satellite resistance:



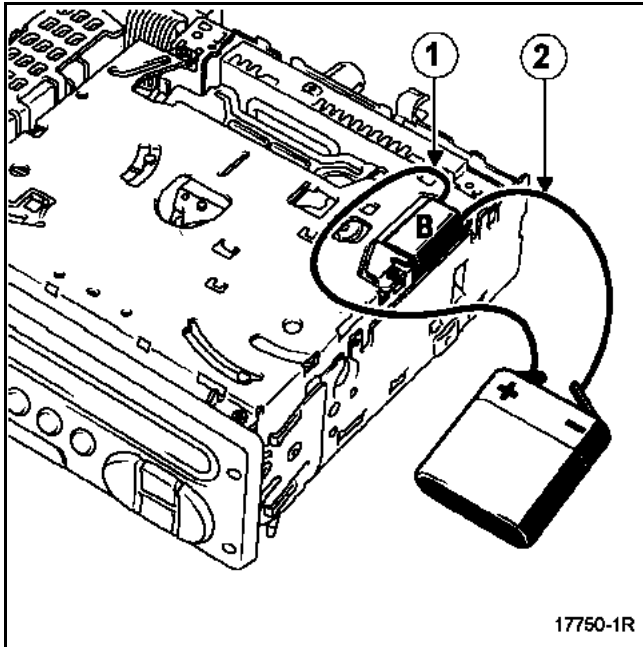
Radio control satellite in use	Connector tracks	Resistance (Ω)
Lower button (5)	between A3 and B1	28
Decrease volume (4)	between B3 and B1	0.5
Increase volume (3)	between A1 and B1	0.5
Upper right button (2)	between A3 and B2	28
Upper left button (1)	between B3 and B2	28
Wheel 1 st position (6)	between A3 and A2	0.5
Wheel 2 nd position (6)	between B3 and A2	0.5
Wheel 3 rd position (6)	between A1 and A2	0.5

* the check is carried out using a multimeter in the ohmmeter position between the tracks of the radio control satellite connector (see table above).

RADIO

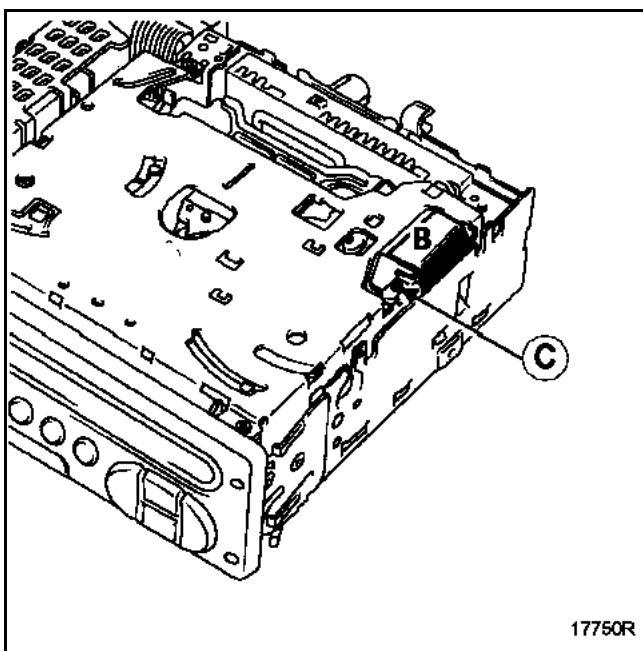
First solution

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).

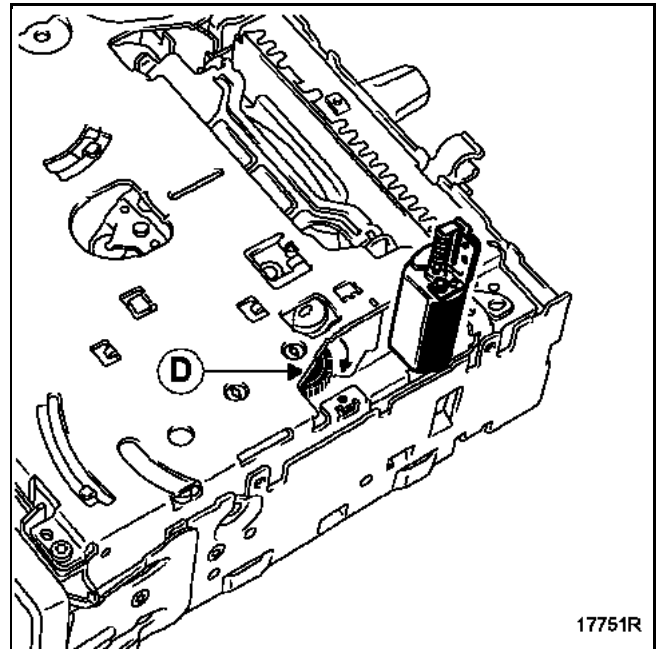


Second solution

If the electric ejector motor is not operational, remove the screw (**C**) and release the electric motor (**B**) from the radio.



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

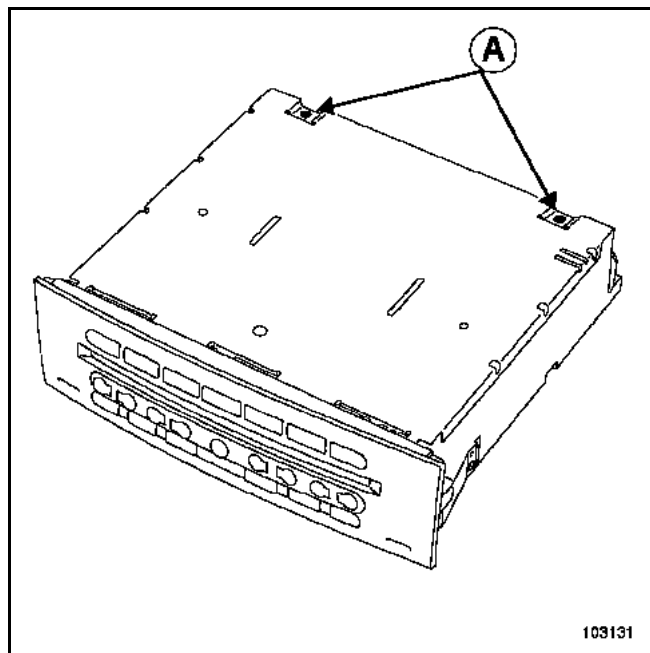
Recovering a jammed CD

86A

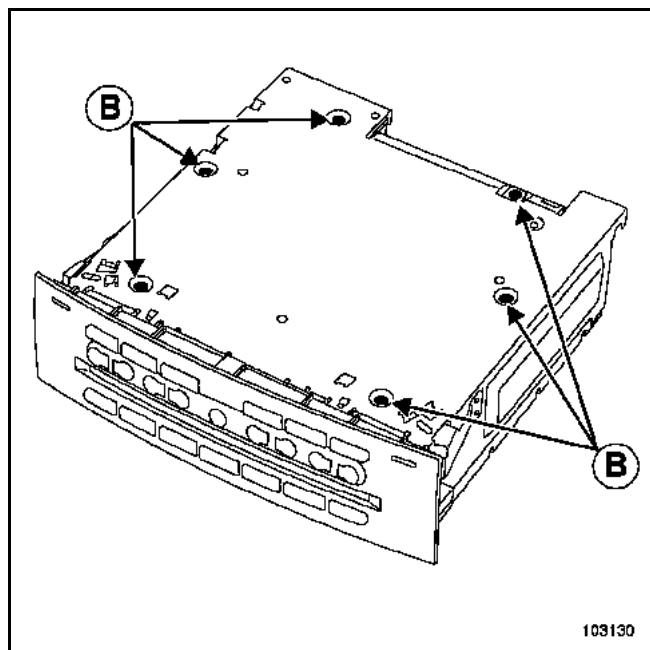
CHANGER IN THE DASHBOARD

REMOVAL

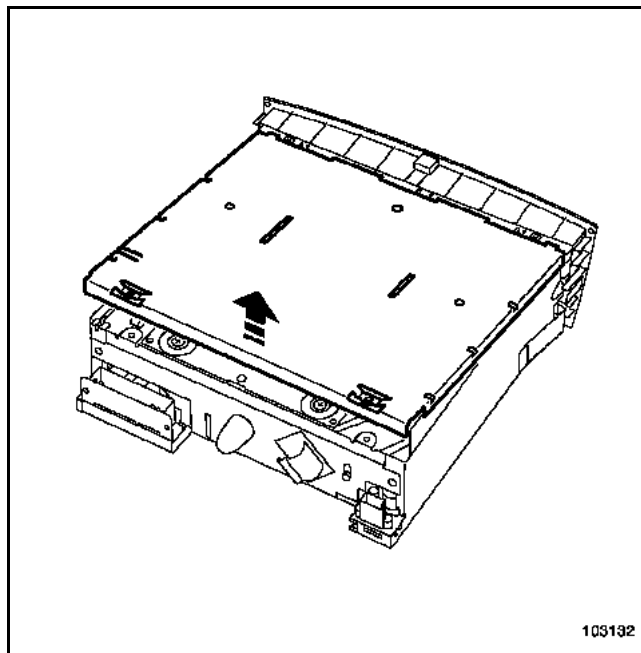
Remove the two bolts (A).



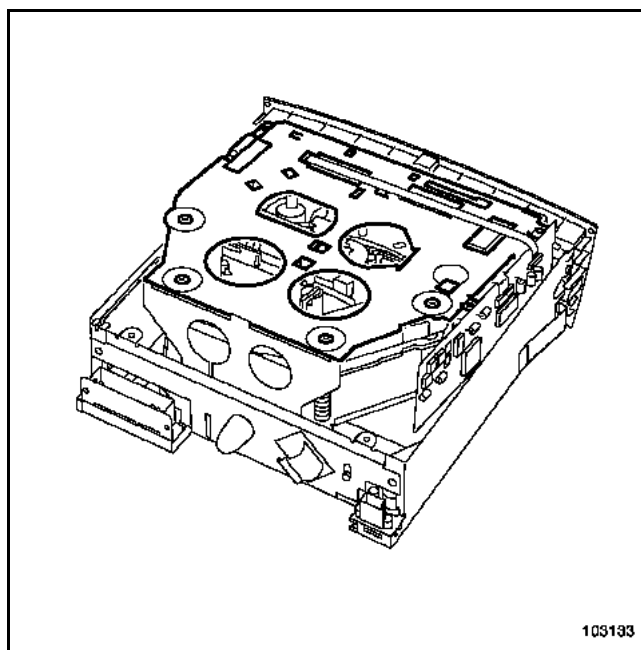
Turn the CD changer over and remove the 6 screws (B).



Turn the CD changer over and remove the cover.



Remove the mechanism from its housing.



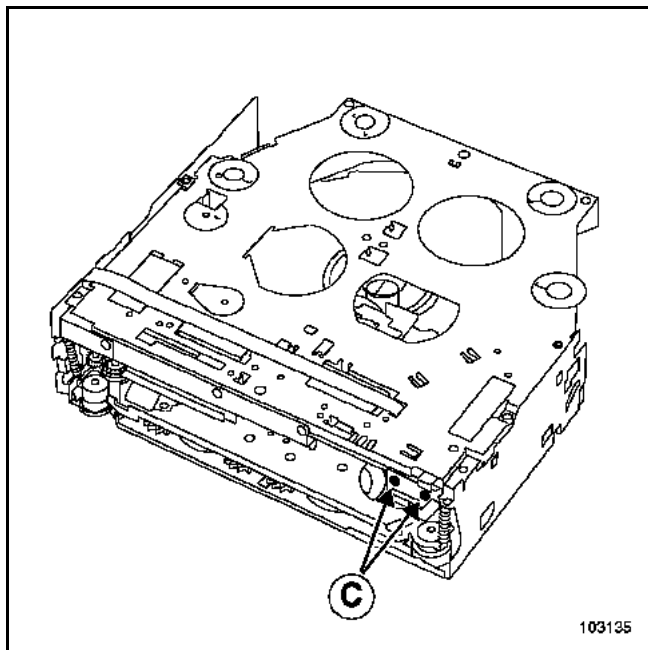
RADIO

Recovering a jammed CD

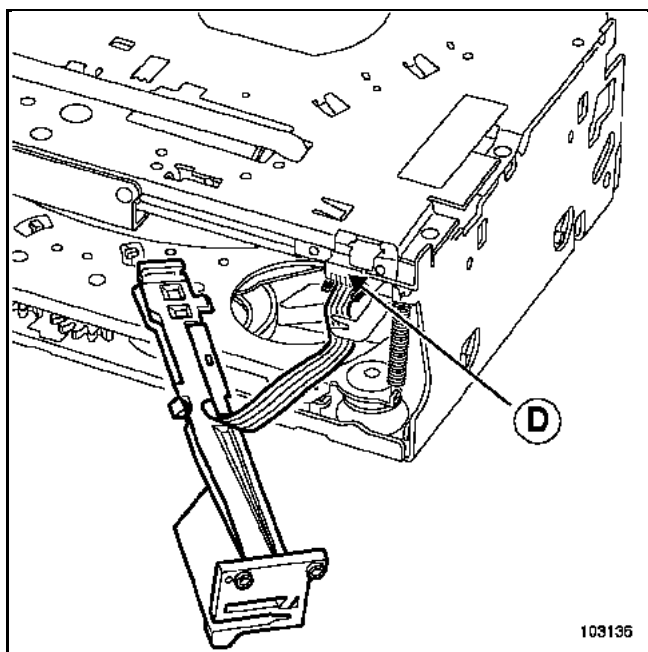
86A

CHANGER IN THE DASHBOARD

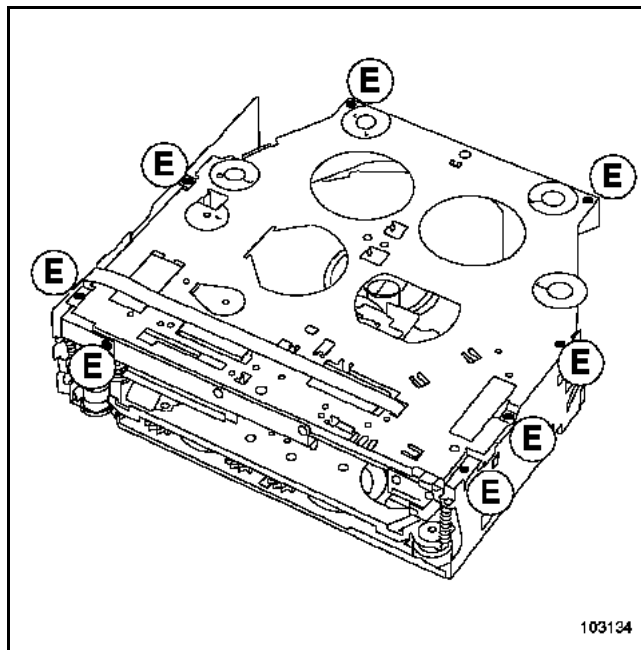
Remove the two bolts (C).



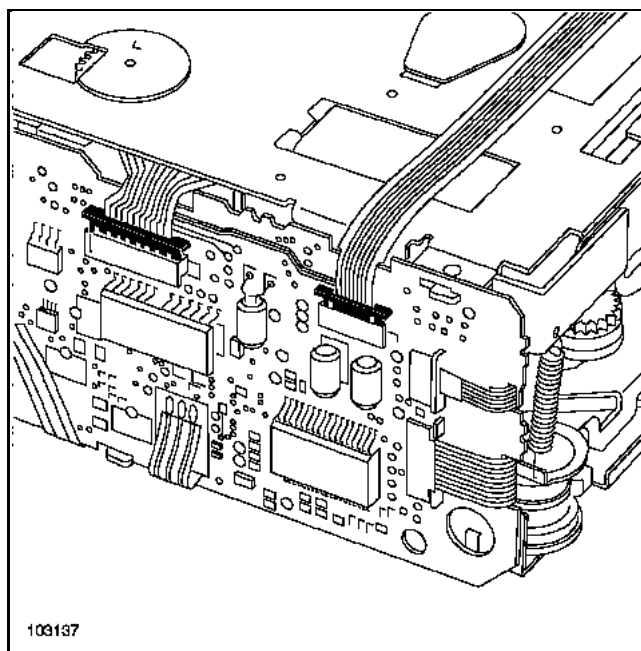
Take out the CD guide arm and disconnect the connector (D).



Remove the eight bolts (E),

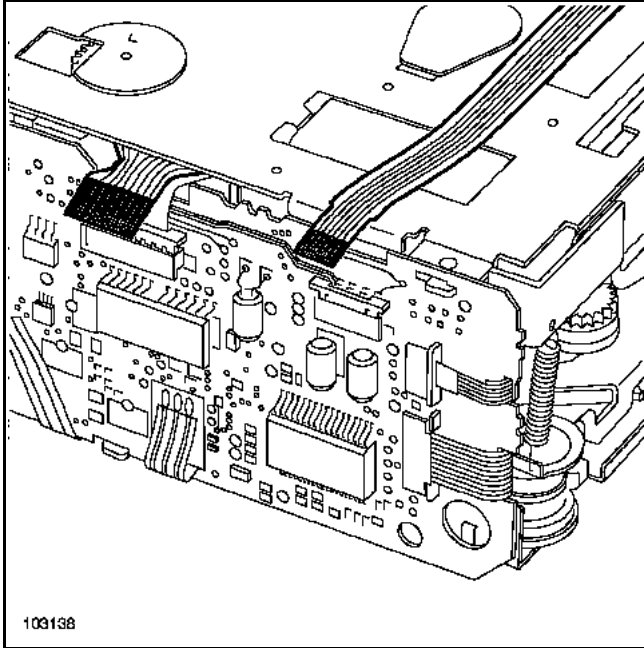


Remove both clips from the two connectors.

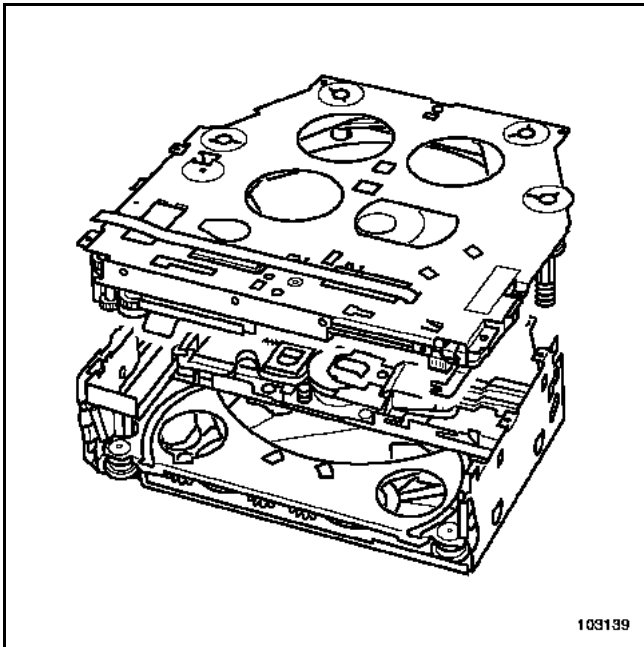


CHANGER IN THE DASHBOARD

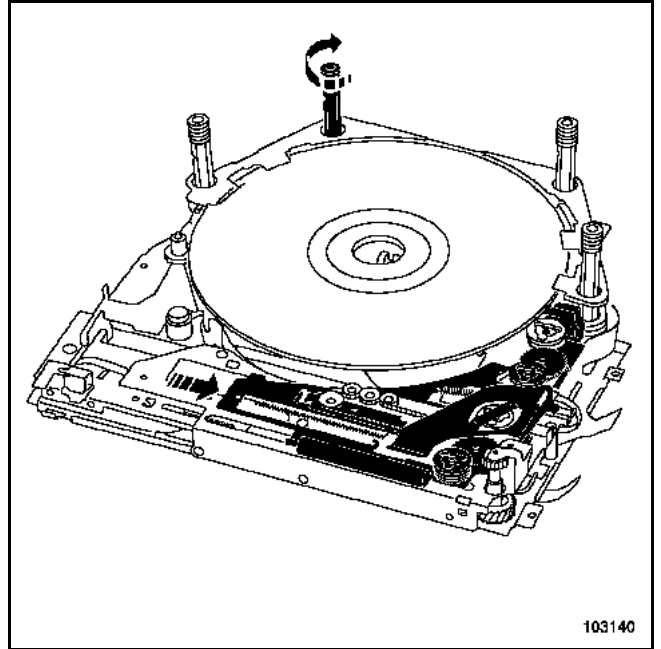
Remove both ribbon cables.



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.

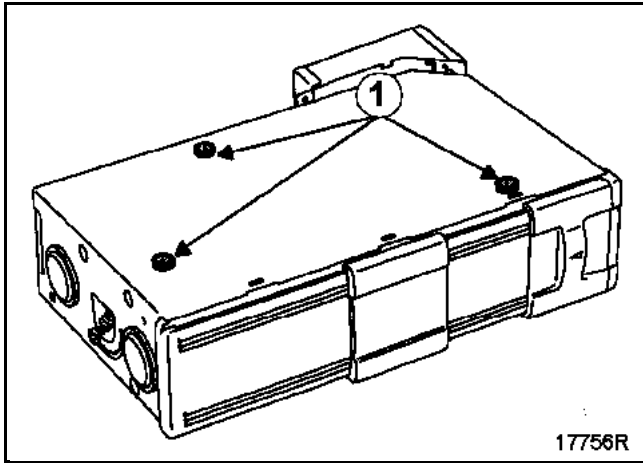
IMPORTANT

Never refit the changer mechanism once it has been removed.

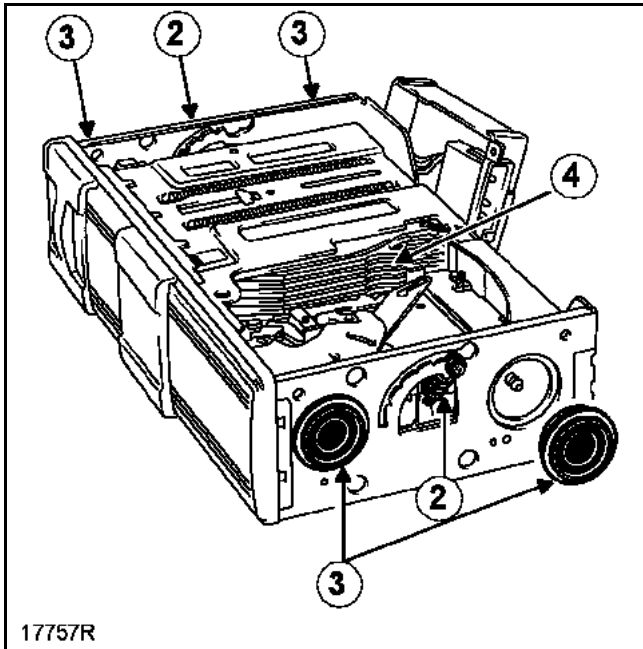
CHANGER IN THE BOOT

Remove:

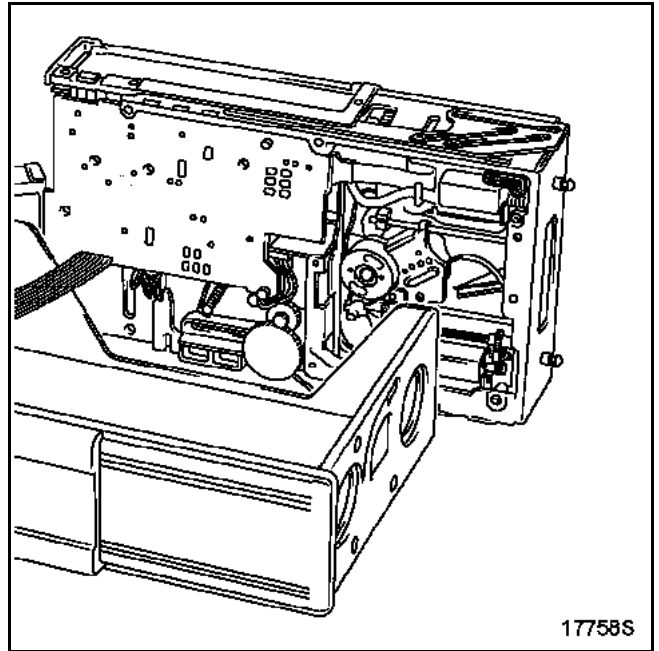
- the three bolts (1) located underneath the unit,



- the two springs (2) after moving them to the top position.



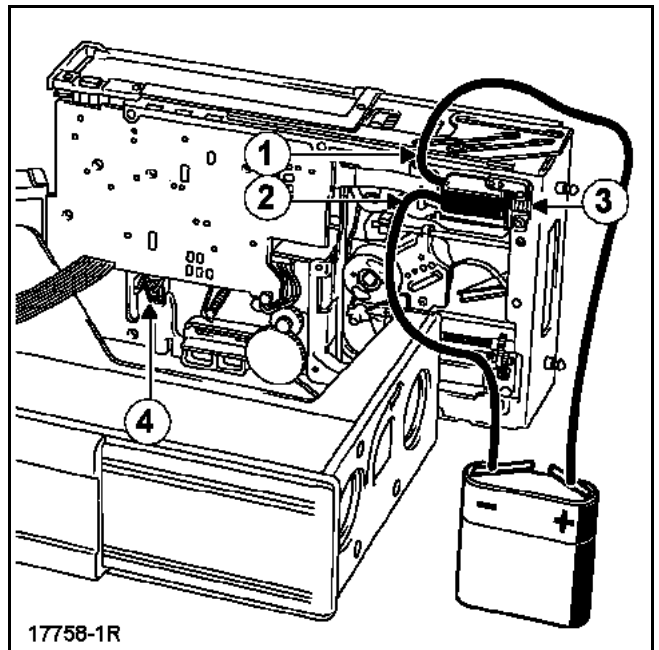
Remove the electronic module from the support and fit it to the side.



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).

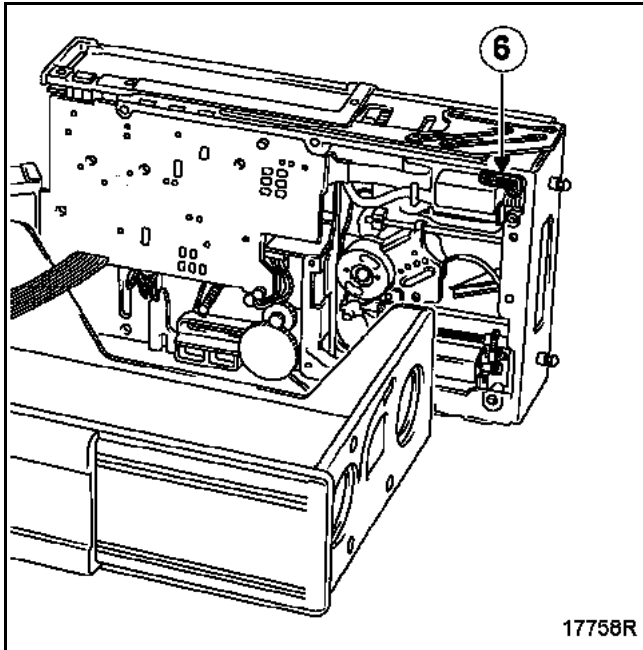


CHANGER IN THE BOOT

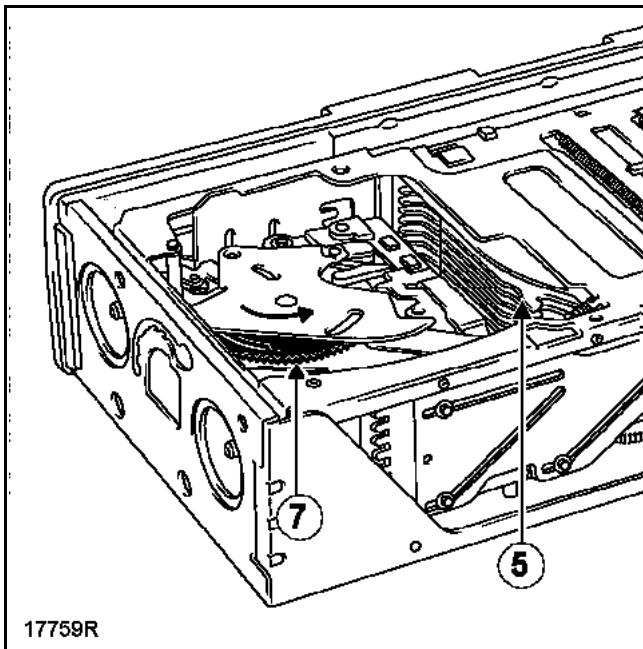
Second solution

If the electric motors are not operational:

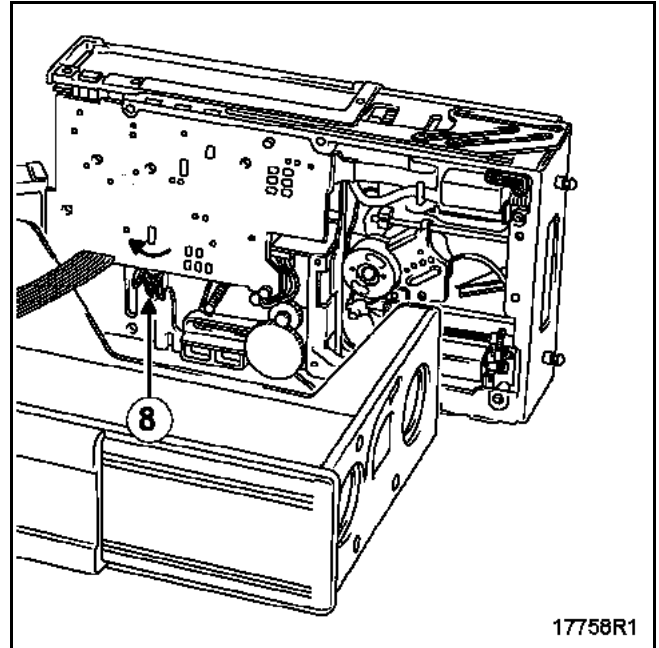
1. To reinsert the CD and its drawer into changer (5), remove the pinion mounting (6) using its bolt.



Turn the toothed wheel (7) anti-clockwise by hand 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,
- close the changer, reattach its cover and refit the rear section.