

## Radio systems

### General information

#### **CAUTION!**

#### ***Before working on the electrical system:***

- ◆ ***Determine the correct coding for the anti-theft radio.***
  
- ◆ ***Disconnect the battery Ground (GND) strap.***

#### **Note:**

*After re-connecting the battery, activate the vehicle's electrical equipment (radio, clock, power windows, engine) according to the owner's manual.*

**Notes:**

- ◆ *A new generation of the radio is being used for model year 1998. The "Delta" radio will be replaced by the "Concert" radio which has On Board Diagnostic (OBD) capability.*
- ◆ *When addressing customer complaints, it is absolutely necessary to know the functions and the operation of the radio system.*
- ◆ *For additional information:*
  - ⇒ *Radio operating instructions*
  - ◆ *When retrofitting, repairing or troubleshooting:*
    - ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations*
    - ⇒ *Radio installation instructions*
    - ◆ *Repair Manual "Body Interior" contains detailed*

*installation instructions, e.g. removing and installing trim.*

- ◆ *All radio systems are equipped with anti-theft coding.*

### Retrofitting radio systems

- ◆ The connectors on the factory-installed radio wiring harness are designed for genuine Audi radios.
- ◆ Radios with different types of connectors must be installed using adapter wires.

#### **CAUTION!**

***When connecting the vehicle speed sensor signal wire (on radios with the GALA function), take particular care to avoid short circuits, which could result in vehicle malfunctions (e.g. in the engine management system).***

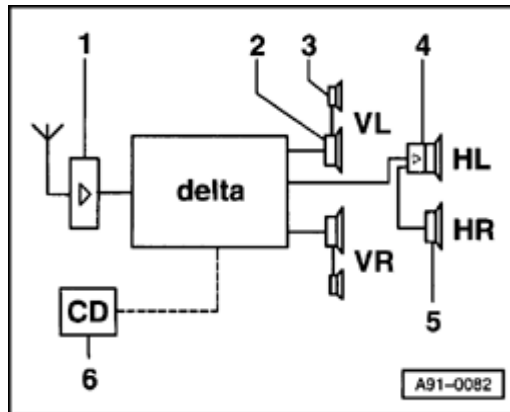
- ◆ Vehicle malfunctions may also occur if the vehicle speed sensor signal wire is connected to radios supplied by other manufacturers.
- ◆ If a non-stock radio is installed ("Concert" m.y. 1998 ➤) it can have a negative effect on the antenna amplifier. The original Audi radio units supply power to the antenna amplifier through the center wire of the HF cable.

### Retrofitting CD systems

The wiring for the CD changer is installed in the

vehicle during production. The connecting cable can only be used with original Audi CD changers.

## Radio system, overview (► m.y. 1997)



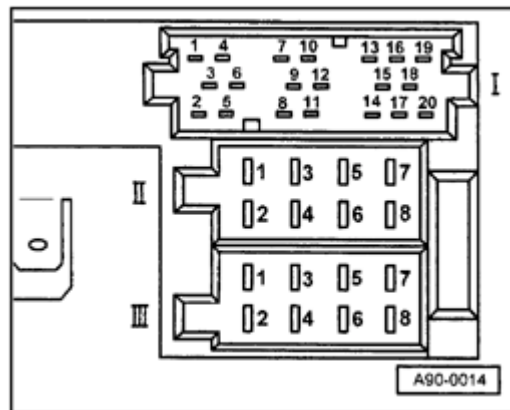
### "Delta" radio system

- 1 - Rear window antenna with antenna amplifier
- 2 - Bass speaker in front door trim (bottom)
- 3 - Mid-range/treble speaker in front door trim (top)
- 4 - Broad-band speaker (active with double amplifier) in parcel shelf (left-rear)
- 5 - Broad band speaker (passive) in parcel shelf (right-rear)
- 6 - CD changer (optional) in luggage compartment (left-rear)

### Multi-pin connectors I, II, III (on back of radio), terminal assignments

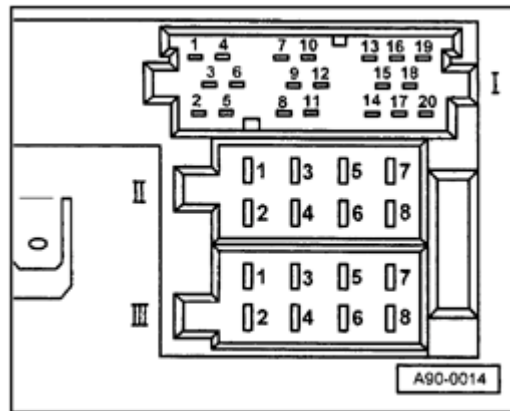
#### Note:

*Terminals which are not listed are vacant/unassigned.*



### 20-pin connector I

- 1 - Line out, left-rear
- 2 - Line out, right-rear
- 3 - Low frequency Ground (GND)

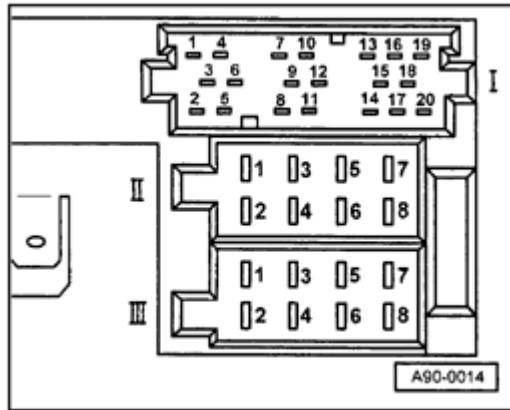


A

- 6 - Switched positive supply (B+) for active speaker
- 8 - Clock signal
- 9 - Data signal
- 10 - Enable signal
- 12 - USA coding
- 13 - CD bus data (CD changer)
- 14 - CD bus clock (CD changer)
- 15 - Ground (GND) for (CD changer)
- 16 - Power supply (B+) (continuous)
- 17 - Switched positive supply (B+) for CD changer
- 18 - Low frequency Ground (GND) for CD changer
- 19 - Signal wire for left channel (CD low frequency-L)
- 20 - Signal wire for right channel (CD low frequency-R)

#### 8-pin connector II (brown)

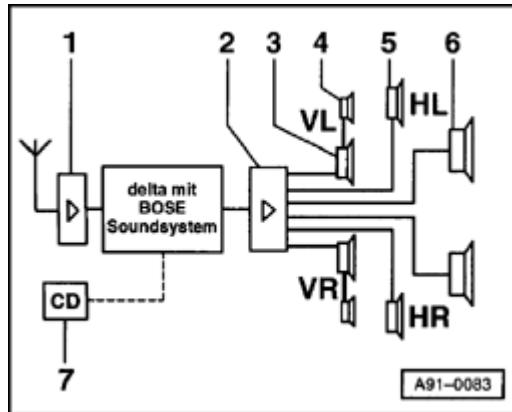
- 3 - Speaker line, right-front (+)
- 4 - Speaker line, right-front (-)
- 5 - Speaker line, left-front (+)
- 6 - Speaker line, left-front (-)



#### A 8-pin connector III (black)

- 1 - Vehicle speed sensor (Gala)
- 2 - Low frequency mute switch (telephone system)
- 3 - Terminal 30
- 4 - Terminal 86s connection for ignition key switched on and off (S-contact)
- 5 - Switched positive supply (B+) for antenna amplifier
- 6 - Illumination (terminal 58d)
- 7 - Terminal 30
- 8 - Ground (GND) (terminal 31)



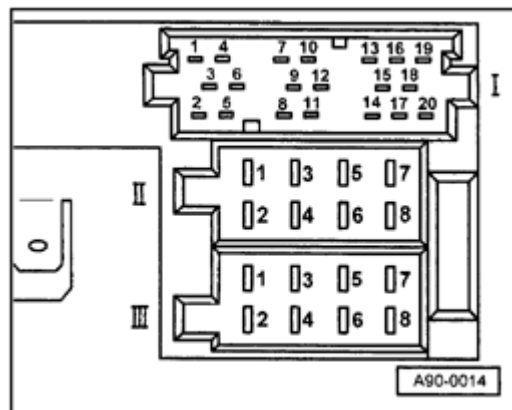
**"Delta" radio with BOSE sound system**

A

- 1 - Rear window antenna with antenna amplifier
- 2 - BOSE amplifier in luggage compartment (left-rear)
- 3 - Bass speaker in front door trim (bottom)
- 4 - Mid-range/treble speaker in front door trim (top)
- 5 - Broad band speaker in rear door trim
- 6 - Bass speaker in parcel shelf
- 7 - CD changer (optional) in luggage compartment (left-rear)

**Multi-pin connectors I, II, III (on back of radio) terminal assignments****Note:**

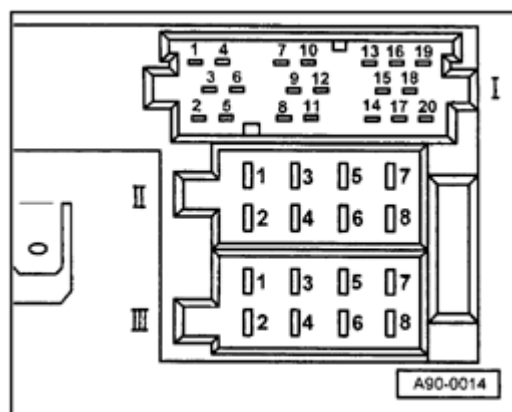
*Terminals which are not listed are vacant/unassigned.*



A

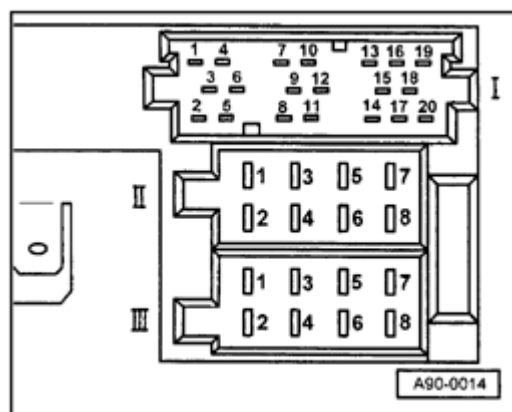
**20-pin connector I**

- 1 - Line out, left-rear
- 2 - Line out, right-rear
- 3 - Low frequency Ground (GND)



A

- 4 - Line out, left-front
- 5 - Line out, right-front
- 6 - Switched positive supply (B+) for BOSE amplifier
- 7 - BOSE coding
- 8 - Clock signal
- 9 - Data signal
- 10 - Enable signal
- 12 - USA coding
- 13 - CD bus data (CD changer)
- 14 - CD bus clock (CD changer)
- 15 - Ground (GND) (CD changer)
- 16 - Positive supply (B+) (continuous)
- 17 - Switched positive supply (B+) for CD changer
- 18 - Low frequency Ground (GND) for CD changer
- 19 - Signal wire for left channel (CD low frequency-L)
- 20 - Signal wire for right channel (CD low frequency-R)

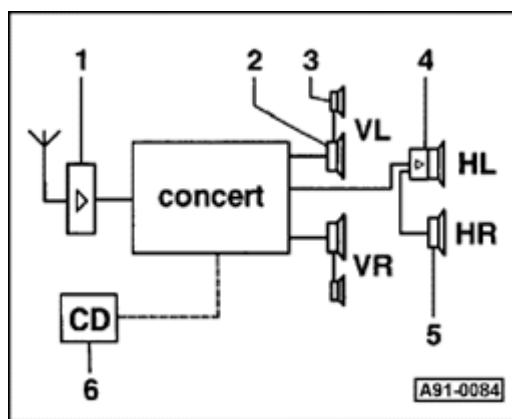


#### A 8-pin connector III (black)

- 1 - Vehicle speed sensor (Gala)
- 2 - Low frequency mute switch (telephone system)
- 3 - Terminal 30
- 4 - Terminal 86s connection for ignition key switched on and off (S-contact)
- 5 - Switched positive supply (B+) for antenna amplifier
- 6 - Illumination (terminal 58d)
- 7 - Terminal 30
- 8 - Ground (GND) (terminal 31)

## Radio system, overview (m.y. 1998 ➤)

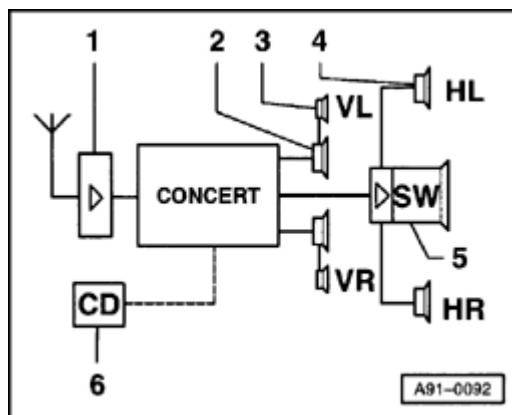
### "Concert" radio (sedan)



A

- 1 - Rear window antenna with antenna amplifier
- 2 - Bass speaker in front door trim (bottom)
- 3 - Mid-range/treble speaker in front door trim (top)
- 4 - Broad band speaker (active with double amplifier) in parcel shelf (left-rear)
- 5 - Broad band speaker (passive) in parcel shelf (right-rear)
- 6 - CD changer (optional) in luggage compartment (left-rear)

### "Concert" radio (Avant)



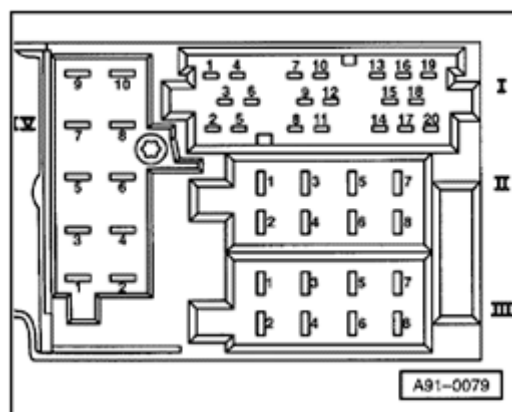
A

- 1 - Roof antenna with antenna amplifier
- 2 - Bass speaker in front door trim (bottom)
- 3 - Mid-range/treble speaker in front door trim (top)
- 4 - Broad band speaker (2-way) in rear door trim
- 5 - Bass speaker (subwoofer) in left-rear of cargo area under side trim
- 6 - CD changer (optional) in left-rear of cargo area under storage compartment

### Multi-pin connectors I, II, III, IV (on back of radio), terminal assignments

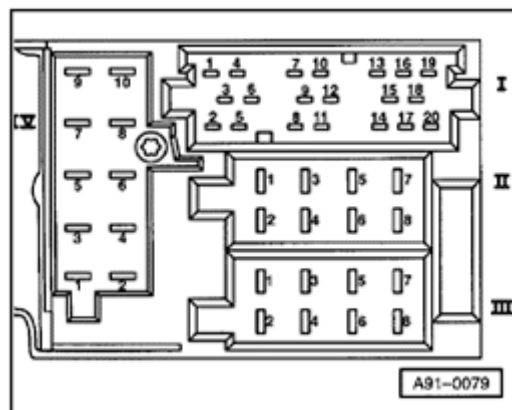
#### Note:

*Terminals which are not listed are vacant/unassigned.*



#### 20-pin connector I

- 1 - Line out, left-rear
- 2 - Line out, right-rear
- 3 - Low frequency Ground (GND)
- 6 - Switched positive supply (B+) for active speaker (sedan) and/or subwoofer (Avant)
- 8 - Clock signal
- 9 - Data signal
- 10 - Enable signal

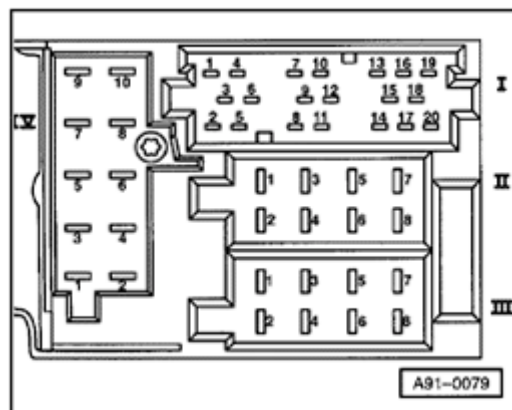


A

- 13 - Bus data in (CD changer)
- 14 - Bus data out (CD changer)
- 15 - Clock (CD changer)
- 16 - Continuous positive supply (B+)
- 17 - Switched positive supply (B+) (CD changer)
- 18 - Low frequency-Ground (GND) (CD changer)
- 19 - Signal wire for left channel (CD low frequency-L)
- 20 - Signal wire for right channel (CD low frequency-R)

#### 8-pin connector II (brown)

- 3 - Speaker line, right-front (+)
- 4 - Speaker line, right-front (-)
- 5 - Speaker line, left-front (+)
- 6 - Speaker line, left-front (-)



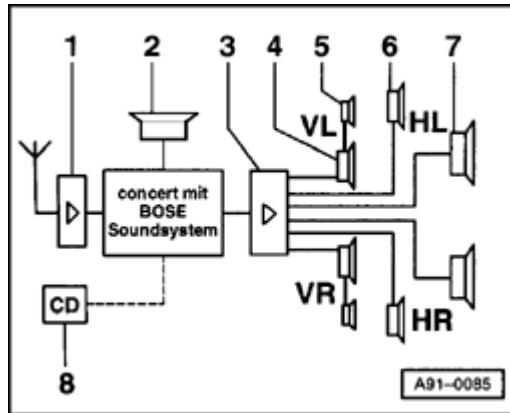
#### ▲ 8-pin connector III (black)

- 1 - Vehicle speed sensor (Gala)
- 3 - K-diagnosis
- 4 - Terminal 86s connection for ignition key switched on and off (S-contact)
- 6 - Illumination (terminal 58d)
- 7 - Terminal 30
- 8 - Ground (GND) (terminal 31)

#### 10-pin connector IV (red)

- 1 - Telephone low frequency mute switch
- 3 - Telephone (low frequency +)
- 4 - Telephone (low frequency -)
- 5 - Navigation (low frequency +) (not applicable US/Canada)
- 6 - Navigation (low frequency -) (not applicable US/Canada)
- 7 - Navigation control line not (not applicable US/Canada)
- 9 - Display illumination (terminal 58d)
- 10 - CD Ground (GND)

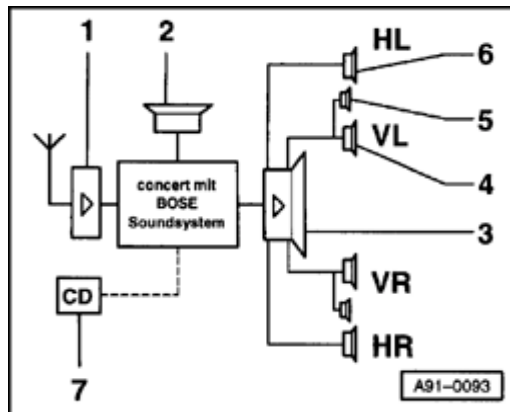
### "Concert" radio with BOSE sound system (sedan)



A

- 1 - Rear window antenna with antenna amplifier
- 2 - Telephone speaker
- 3 - BOSE amplifier in luggage compartment (left-rear)
- 4 - Bass speaker in front door trim (bottom)
- 5 - Mid-range/treble speaker in front door trim (top)
- 6 - Broad band speaker in rear door trim
- 7 - Bass speaker in parcel shelf
- 8 - CD changer (optional) in luggage compartment (left-rear)

### "Concert" radio with BOSE sound system (Avant)



A

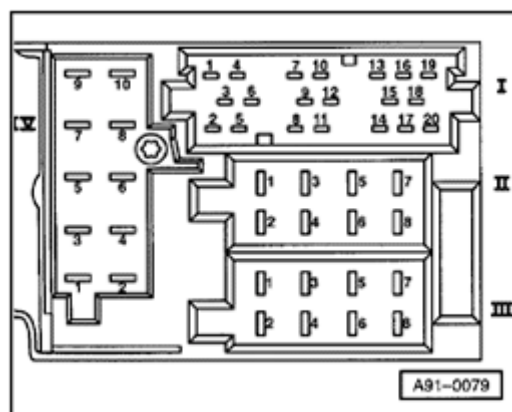
- 1 - Roof antenna with antenna amplifier
- 2 - Telephone speaker
- 3 - BOSE amplifier combined with bass speaker (subwoofer) in cargo area (left-rear) under side trim
- 4 - Bass speaker in front door trim (bottom)
- 5 - Mid-range/treble speaker in front door trim (top)
- 6 - Broad band speaker in rear door trim
- 7 - CD changer (optional) in cargo area (left-rear) under storage compartment



### Multi-pin connectors I, II, III, IV (on back of radio), terminal assignments

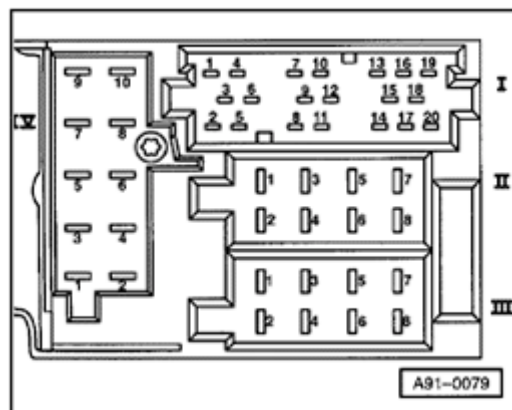
#### Note:

*Terminals which are not listed are vacant/unassigned.*



#### 20-pin connector I

- 1 - Line out, left-rear
- 2 - Line out, right-rear
- 3 - Low frequency Ground (GND)
- 4 - Line out, left-front
- 5 - Line out, right-front
- 6 - Switched positive supply (B+) for BOSE amplifier



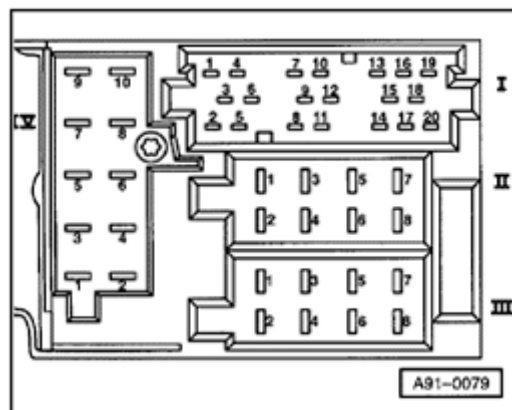
A

- 8 - Clock signal
- 9 - Data signal
- 10 - Enable signal
- 13 - Bus data in (CD changer)
- 14 - Bus data out (CD changer)
- 15 - Clock (CD changer)
- 16 - Continuous positive supply (B+)
- 17 - Switched positive supply (B+) (CD changer)
- 18 - Low frequency-Ground (GND) (CD changer)
- 19 - Signal wire left channel (CD low frequency-L)
- 20 - Signal wire right channel (CD low frequency-R)

#### 8-pin connector II (brown)

- 5 - Hands-free speaker (+)
- 6 - Hands-free speaker (-)

91-17

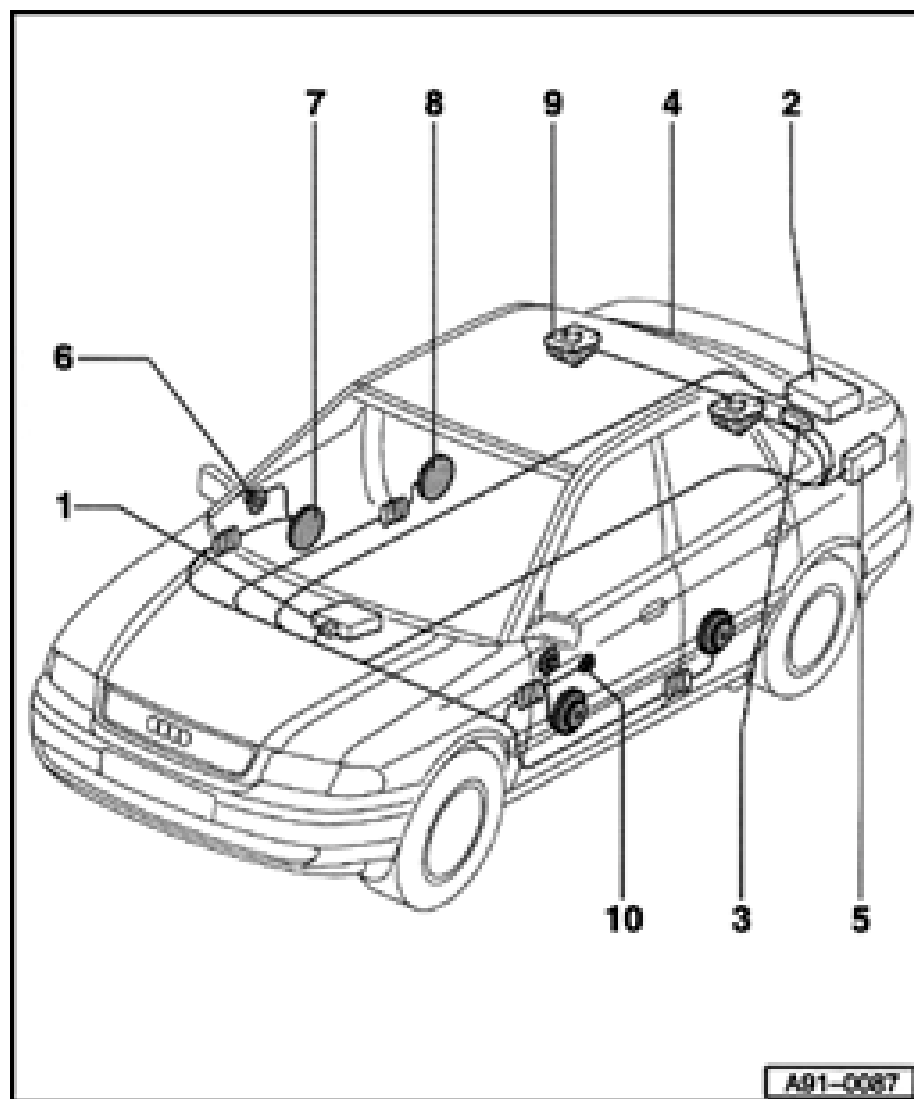


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- 7 - Navigation control line not (not applicable US/Canada)
- 9 - Display illumination (terminal 58d)
- 10 - CD Ground (GND)



## Radio system, overview (sedan)

### 1 - Radio

- ◆ In center console
- ◆ Removing and installing ⇒ [page 91-23](#)

### 2 - BOSE amplifier

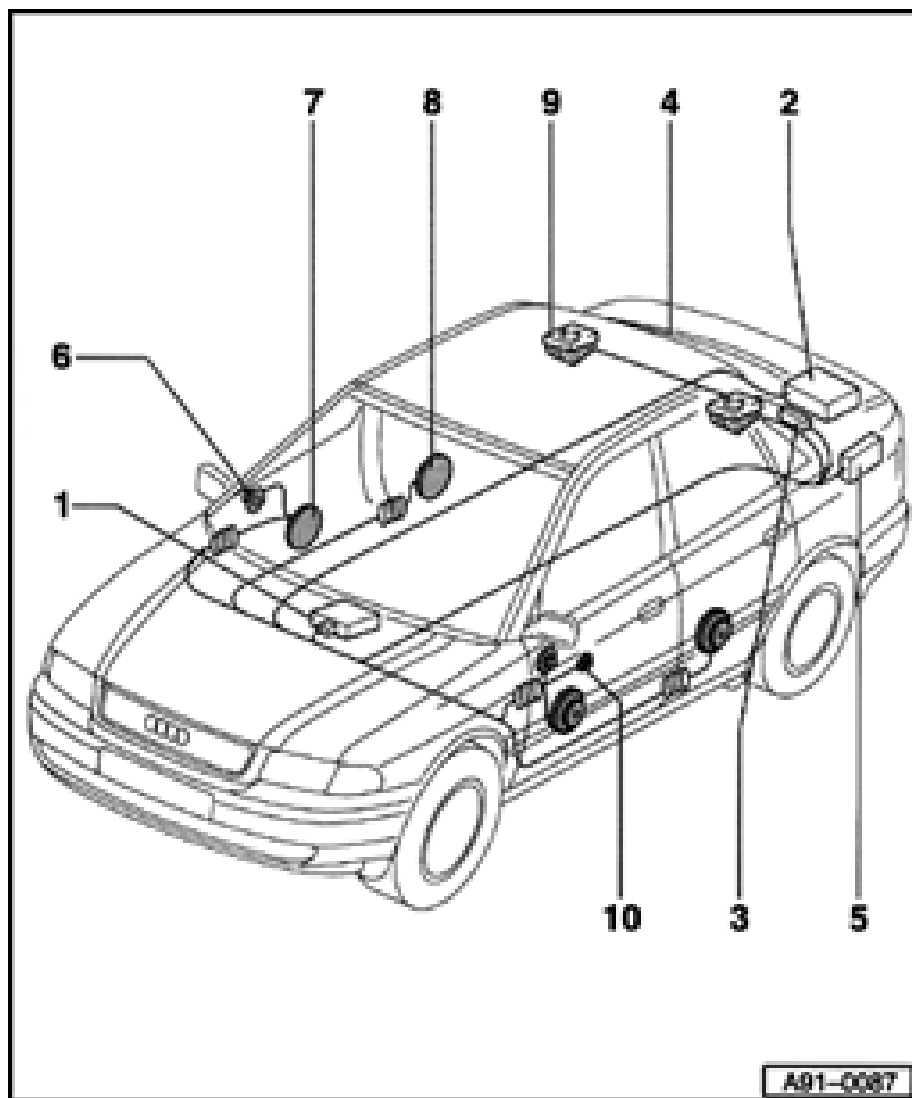
- ◆ In luggage compartment (left-rear) under parcel shelf
- ◆ Removing and installing ⇒ [page 91-35](#)

### 3 - Antenna amplifier

- ◆ In left D-pillar trim
- ◆ Removing and installing ⇒ [page 91-39](#)

### 4 - Rear window antenna

- ◆ Upper 3 wires are AM antenna (non-heated)
- ◆ Remaining wires are FM antenna (heated)
- ◆ Removing and installing ⇒ [Repair Manual, Body Exterior, Repair Group 64](#)



### 5 - CD changer

- ◆ In luggage compartment (lower-left)
- ◆ Removing and installing ⇒ [page 91-31](#)
- ◆ Checking cable ⇒ [page 91-34](#)

### 6 - Mid-range/treble speaker

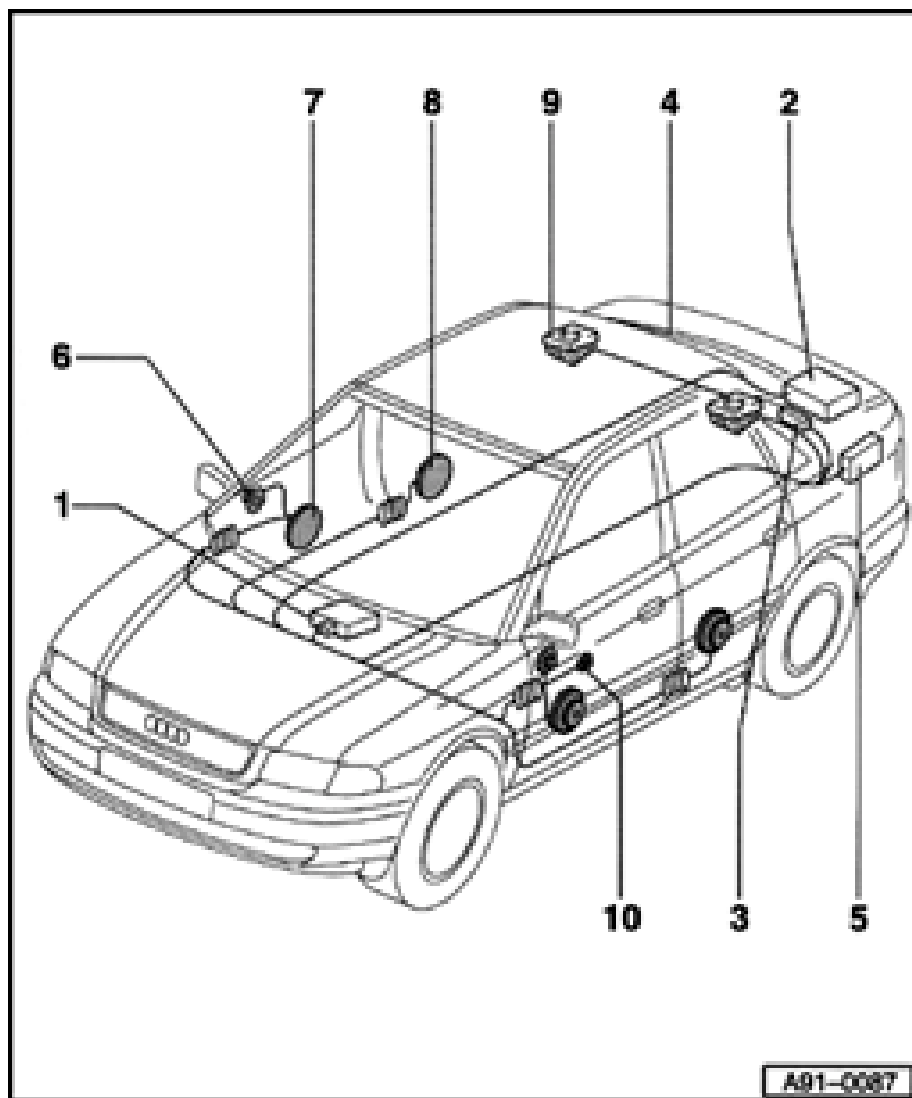
- ◆ In front door trim (top)
- ◆ Removing and installing ⇒ [page 91-28](#)

### 7 - Bass speaker

- ◆ In front door trim (bottom)
- ◆ Removing and installing ⇒ [page 91-27](#)

### 8 - Broad band speaker

- ◆ In rear door trim (only with BOSE sound system)
- ◆ Removing and installing ⇒ [page 91-30](#)

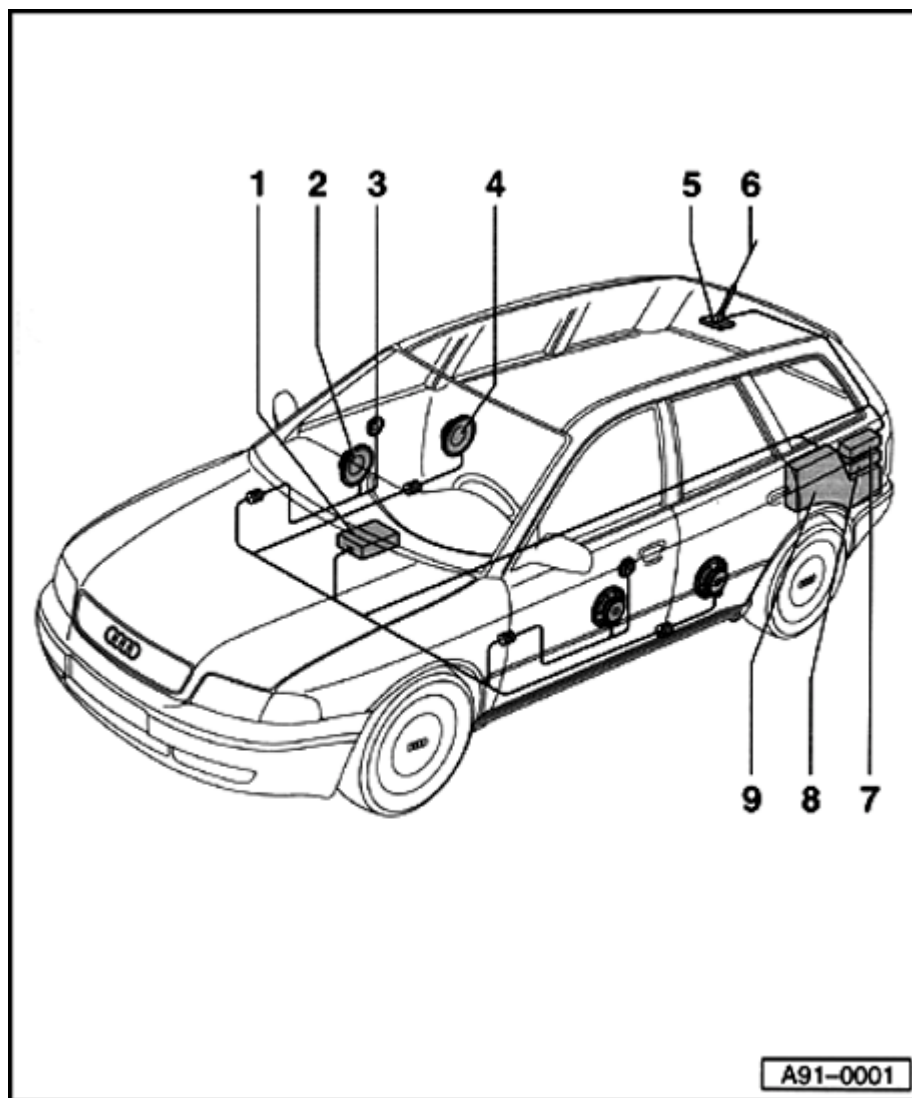


### 9 - Speaker in parcel shelf

- ◆ Broad band speaker
- ◆ Removing and installing ⇒ [page 91-29](#)
- ◆ Bass speaker (only with BOSE sound system)
- ◆ Removing and installing ⇒ [page 91-29](#)

### 10 - Telephone speaker

- ◆ With standard radio equipment, speakers in front door trim are also used as telephone speakers
- ◆ For radios with BOSE sound system, telephone speaker is in front door trim on driver's side



## Radio system, overview (Avant)

### 1 - Radio

- ◆ In center console
- ◆ Removing and installing ⇒ [page 91-23](#)

### 2 - Bass speaker

- ◆ In front door trim (bottom)
- ◆ Removing and installing ⇒ [page 91-27](#)

### 3 - Mid-range/treble speaker

- ◆ In front door trim (top)
- ◆ Removing and installing ⇒ [page 91-28](#)

### 4 - Broad band speaker

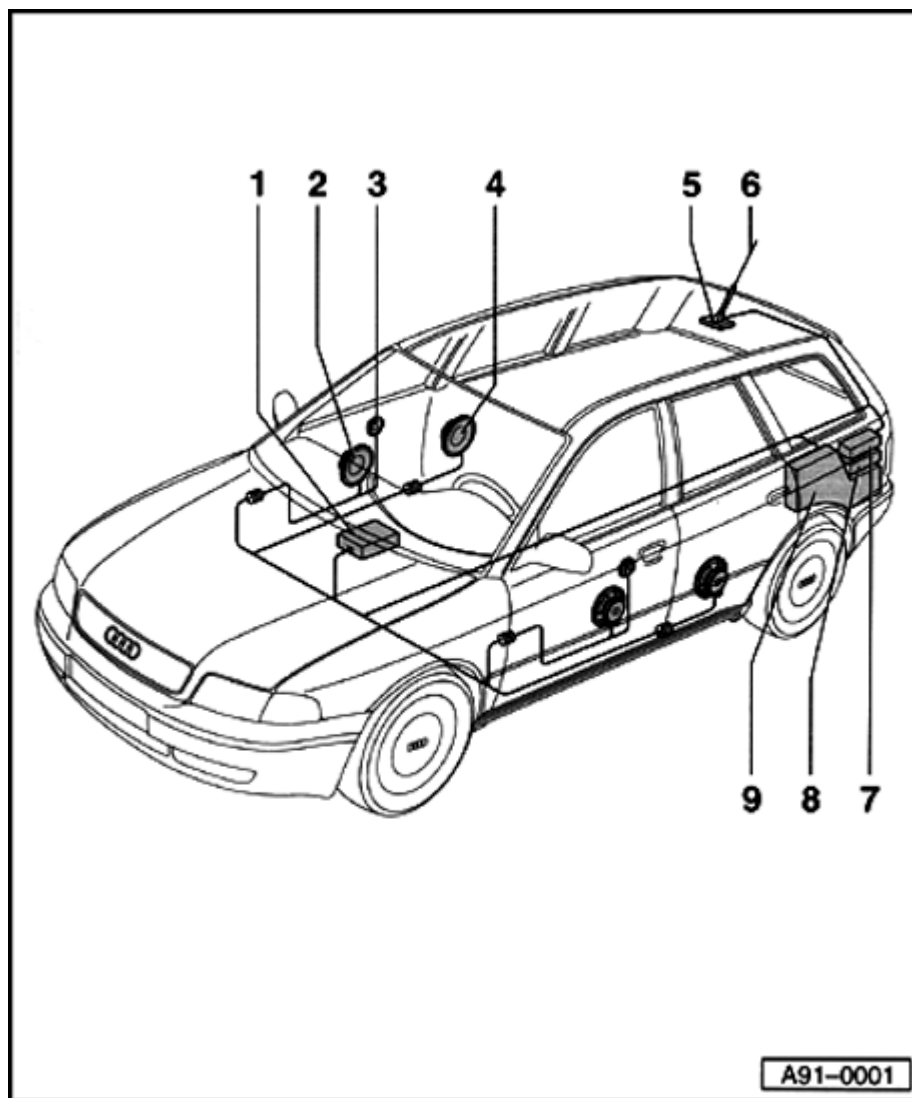
- ◆ In rear door trim
- ◆ Removing and installing ⇒ [page 91-30](#)

### 5 - Antenna base

- ◆ With integrated amplifier

### 6 - Roof antenna

- ◆ With radio and telephone system, combination antenna is used
- ◆ Removing and installing ⇒ [page 91-40](#)



### 7 - CD changer

- ◆ In luggage compartment (left-rear) under cargo area storage bin
- ◆ Removing and installing ⇒ [page 91-32](#)
- ◆ Checking cable between radio and CD changer ⇒ [page 91-34](#)

### 8 - BOSE amplifier combined with bass speaker (subwoofer) only with "Concert with BOSE sound system"

- ◆ In cargo area (left-rear) under side trim
- ◆ Removing and installing ⇒ [page 91-37](#)

### 9 - Bass speaker (subwoofer) only with "Concert" radio

- ◆ In cargo area (left-rear) under side trim
- ◆ Removing and installing ⇒ [page 91-37](#)



## Radio, removing and installing (Concert)

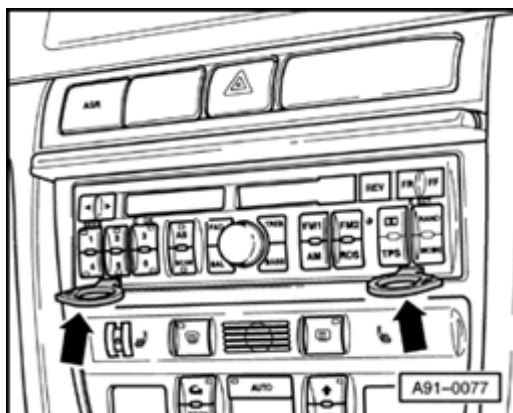
### **CAUTION!**

**Obtain the anti-theft radio code before disconnecting the radio.**

### Special tools and equipment

T10057 radio removal tool

### Removing



A

- Insert T10057 radio removal tool into front panel of radio as shown.
  - ◆ Top L: upper left
  - ◆ Top R: upper right
- Remove radio out of instrument panel together with T10057.
- Disconnect harness connectors and antenna wire.

### Installing

- Remove T10057 radio removal tool before installing radio.
  
- Connect harness connectors and antenna wire.
  
- Carefully slide radio into instrument panel until radio is fully engaged in frame.
  
- Enter anti-theft radio code and check operation  
⇒ radio owners manual.

## Radio, removing and installing (Symphony)

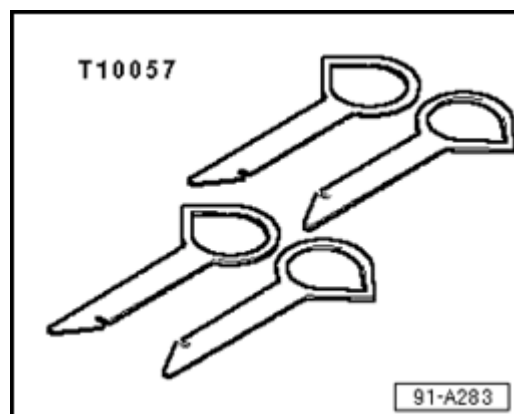
### **CAUTION!**

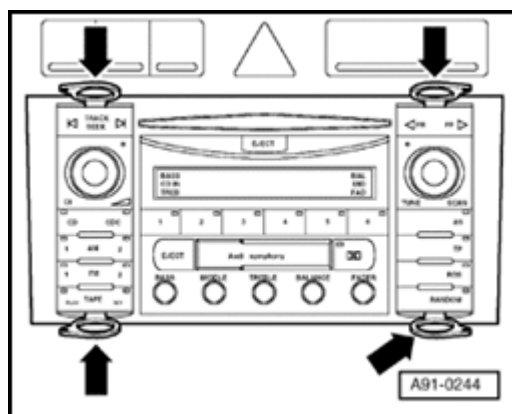
***Obtain the anti-theft radio code before disconnecting the radio.***



### Required special tools and equipment

- ◆ T10057 radio removal tool





A

## Removing

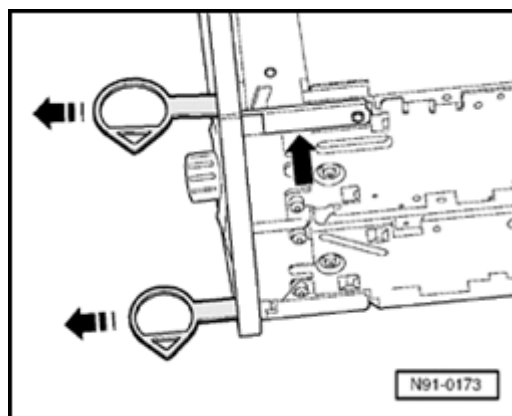
Perform the following work sequence:

- Insert T10057 radio removal tools into release slots (arrows) as shown until they engage.
  - ◆ Top L - top and bottom left
  - ◆ Top R - top and bottom right
- Pull radio out of instrument panel using grip rings on release tool.
- Unlock and disconnect harness connectors

Remove radio release tools:

A

- Press locking latch arrow- and remove radio release tools toward front.



## Installing

- Connect harness connectors to radio.
- Slide radio evenly into instrument panel, until it engages in assembly frame.

## Speakers, removing and installing

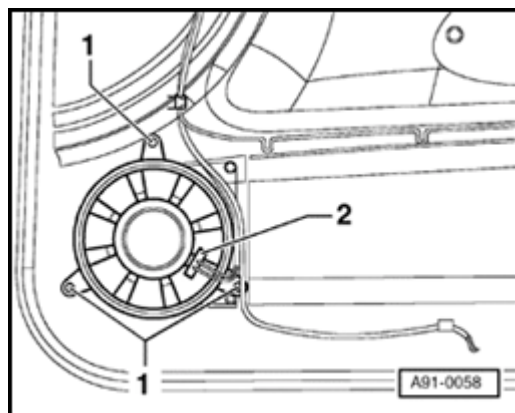
### Removing and installing bass speakers in front door trim

#### Removing

Remove front door trim.

⇒ [Repair Manual, Body Interior, Repair Group 70](#).

Carefully loosen insulation in area of bass speaker on back side of door trim.



A

- Disconnect harness connector -2- from speaker.
- Remove screws -1- on speaker and remove speaker from door trim.

#### Installing

- Install in reverse order of removal.

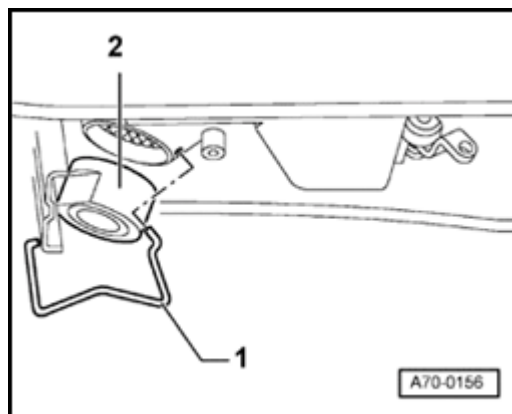
## Removing and installing mid-range/treble speakers in front door trim

### Removing

Remove front door trim.

⇒ [Repair Manual, Body Interior, Repair Group 70](#).

- Carefully loosen insulation in area of treble speaker on back side of door trim.



- Using screwdriver, disconnect clip -1-.
- Remove speaker -2- from door trim.

### Installing

- Install in reverse order of removal.

## Removing and installing speakers in parcel shelf

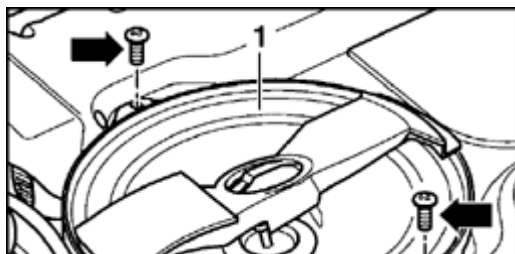
### Notes:

- ◆ *Broad band speakers are installed in the parcel shelf for ➤ m.y. 1997 vehicles with the "Delta" radio and ➤ m.y. 1998 vehicles with the "Concert" radio.*
- ◆ *Bass speakers are installed in the parcel shelf for ➤ m.y. 1997 with the "Delta" radio with the BOSE sound system and/or m.y. 1998 ➤ vehicles with the "Concert" radio with the BOSE sound system.*

### Removing

Remove parcel shelf.

⇒ [Repair Manual, Body Interior, Repair Group 70](#).



A

- Remove two mounting screws (arrows) from broad band speaker and/or treble speaker -1- and remove speaker upward out of sheet metal cut-out under parcel shelf.
- Disconnect harness connector.

## **Installing**

- Install in reverse order of removal.

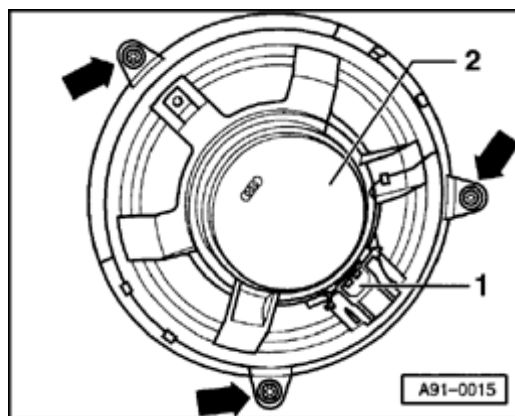


## Removing and installing broad band speakers in rear door trim

### Removing

Remove rear door trim.

⇒ [Repair Manual, Body Interior, Repair Group 70](#).



A

- Carefully loosen insulation from door trim in area of broad band speaker on back of door trim.
- Disconnect harness connector -1-.
- Remove mounting screws (arrows) from broad band speaker -2- and remove speaker from door trim.

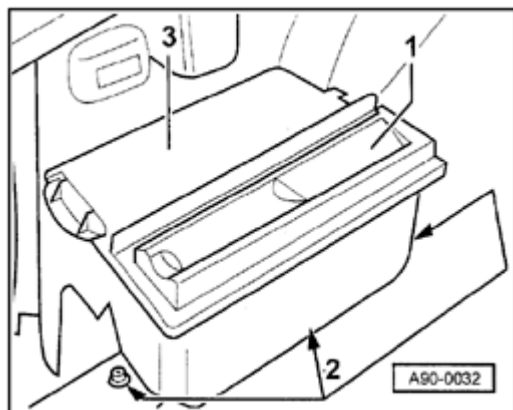
### Installing

- Install in reverse order of removal.

## CD changer, removing and installing (sedan)

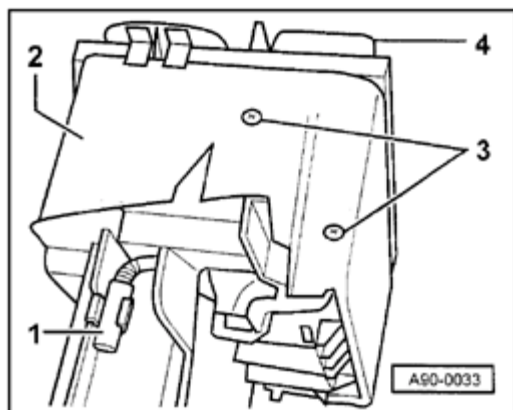
### Removing

The CD changer is located in the luggage compartment on the left side wall in a holding box. A compartment with the on board tool kit is also integrated here.



- A** The CD changer -1- is located in a holding box -3- in the left side of the luggage compartment behind the wheel housing.

- Remove three Phillips-head screws -2- and remove holding box -3-.

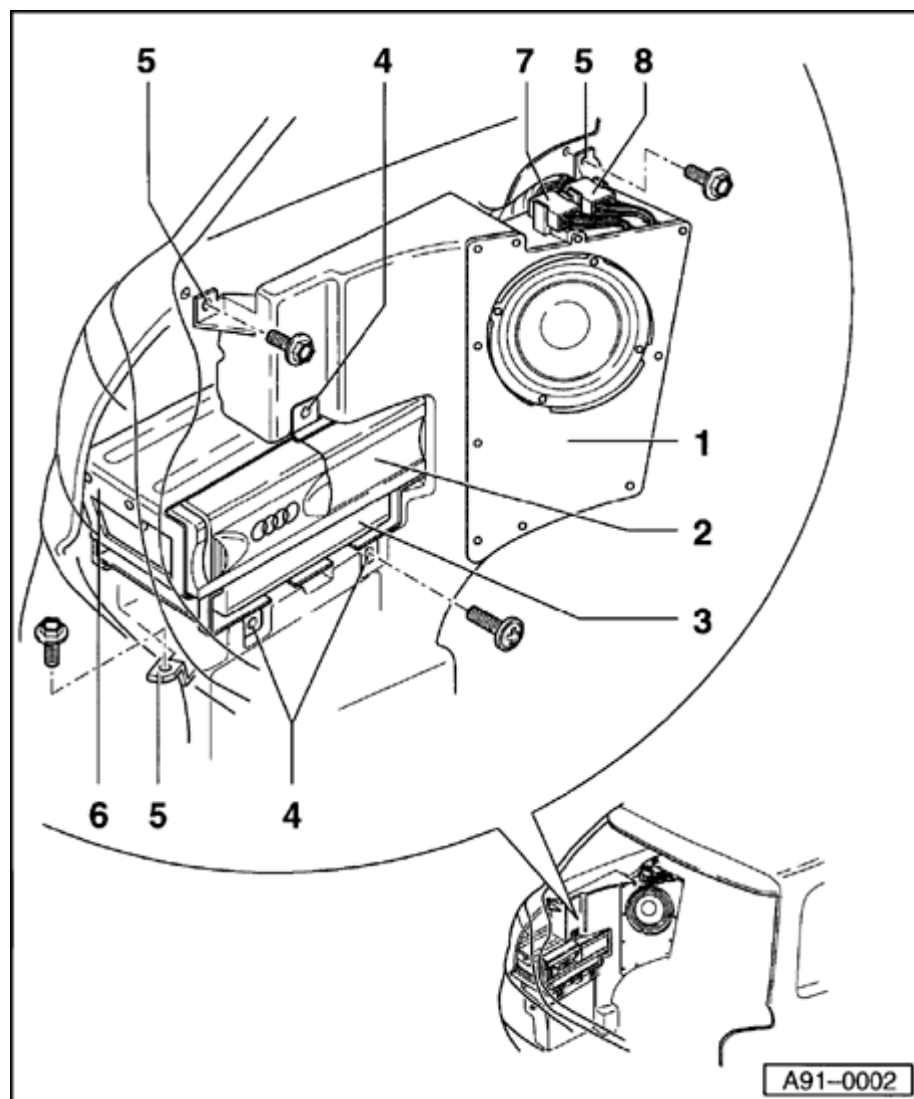


- A**
- Disconnect harness connector -1- under holding box -2- and remove holding box from luggage compartment.
  - Remove four Phillips-head screws -3- on both sides of holding box -2- and remove CD changer from holding box.

### Installing

- Install in reverse order of removal.

- After installing CD changer, cable between radio and CD changer must be checked ⇒ [page 91-34](#) .



## CD changer, removing and installing (Avant)

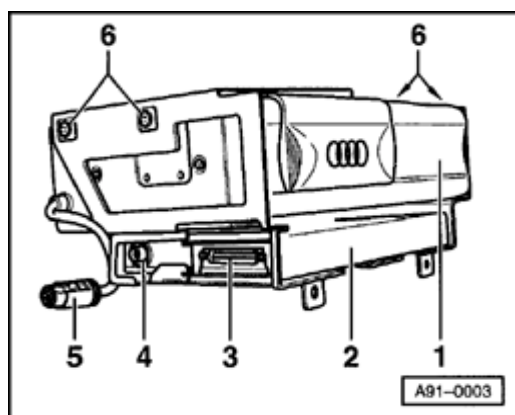
### Overview

- 1 - Bass speaker (subwoofer)
- 2 - CD changer
- 3 - Telephone sending/receiving unit (not applicable for USA/Canada)
- 4 - Phillips-head screws (3x)
  - ◆ For mounting frame for CD/telephone
- 5 - Mounting screws for bass speaker (subwoofer)
- 6 - Frame for CD changer/telephone
- 7 - Harness connector for BOSE amplifier
- 8 - Harness connector for bass speaker (subwoofer)

## Removing

The CD changer is in the left rear of the cargo area under the storage bin.

- Open left side cargo area storage bin.
- Remove mounting screws and remove frame from storage bin.
- Disconnect harness connector -5- on CD changer -1-.
- Disconnect harness connector -3-.
- To remove CD changer, remove from side four Phillips-head screws -6- and remove CD changer from frame.



## Installing

- Install in reverse order of removal.
- After installing CD changer, cable between radio and CD changer must be checked ⇒ [page 91-34](#) .

### **Checking cable between radio and CD changer**

- Switch radio off.
- Press MODE button on radio while turning radio on.

Do not press the MODE button again.

#### **If the cable connection is OK:**

The radio display indicates: "CONNECT" and "CD"

#### **If the cable connection is NOT OK:**

The radio display indicates: "NO CDC"

- Check electrical connections on CD changer.
- Repeat check as described above.

If not OK:

- Check wiring connections ⇒ Electrical Wiring Diagrams Troubleshooting & Component Locations

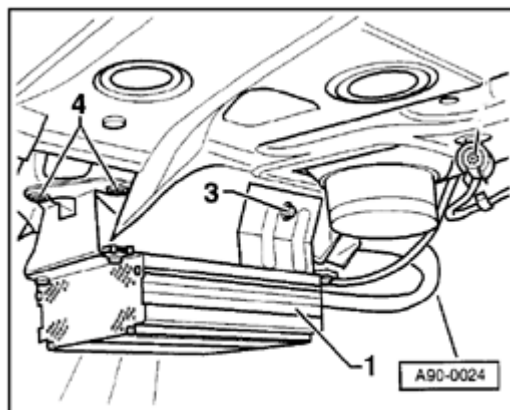
## BOSE amplifier, removing and installing (sedan)

### Note:

*In vehicles from VIN 200000, the Bose amplifier is mounted in the same area as shown below, but in a vertical orientation.*

### Removing

The BOSE amplifier is located in the luggage compartment on the left side over the wheel housing.



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- Remove Phillips-head screws -3- (1x) and -4- (2x) and remove frame for BOSE amplifier -1-.
- Disconnect harness connector on back of amplifier.

### Installing

- Install in reverse order of removal.

### **BOSE amplifier with bass speaker (subwoofer), removing and installing (Avant)**

The BOSE amplifier is located in the left side of the cargo area under the cargo area side trim.

#### **Notes:**

- ◆ *If the vehicle is equipped with a CD changer, it must be removed ⇒ [page 91-32](#) .*
- ◆ *Bass speaker (subwoofer), removing and installing ⇒ [page 91-37](#) .*

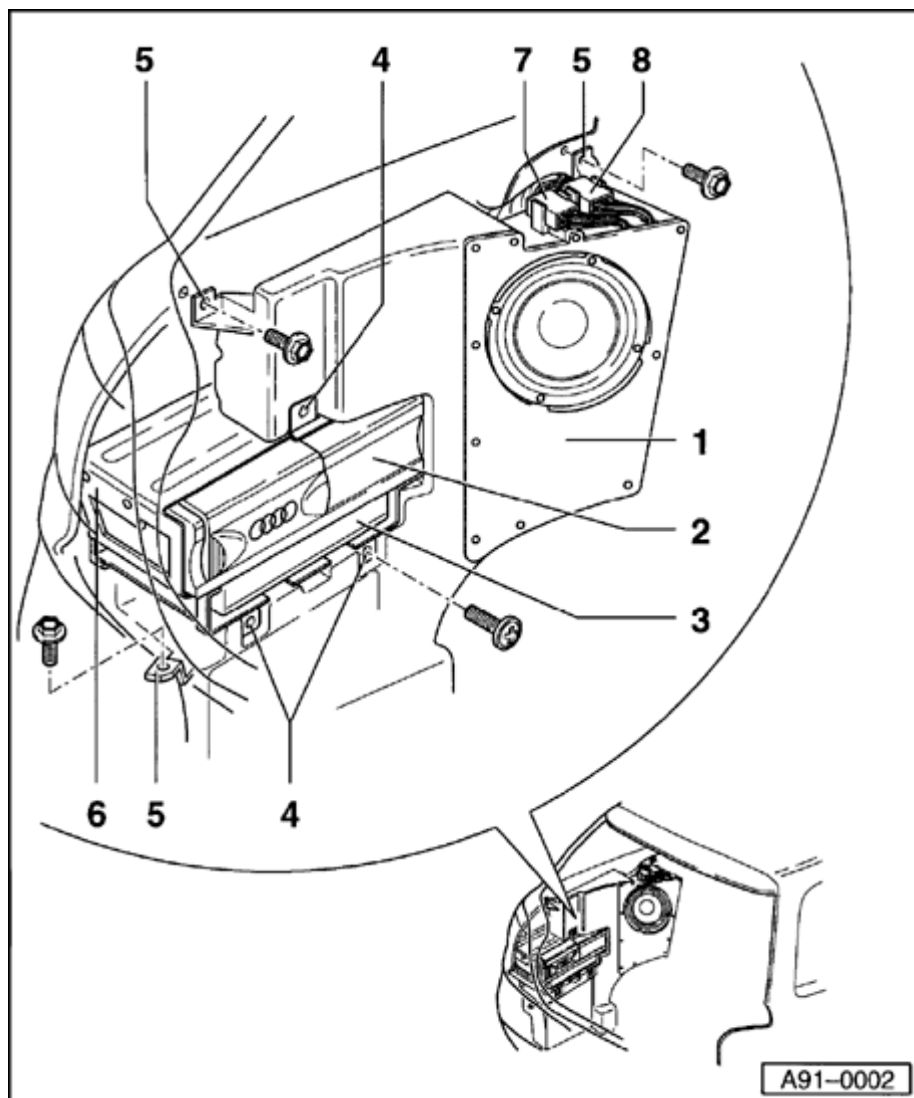


## Bass speaker (subwoofer), removing and installing (Avant)

### **Note:**

*If the vehicle is equipped with a CD changer, it must be removed ⇒ [page 91-32](#) .*

The bass speaker (subwoofer) is located on the left side of the cargo area under the cargo area side trim.



### Removing

- Open storage bin at left side of cargo area.
- Remove left side cargo area side trim ⇒ [Repair Manual, Body Interior, Repair Group 70](#) .
- Disconnect harness connector -8- for bass speaker (if equipped with BOSE sound system, also disconnect harness connector -7-).
- Remove bass speaker (subwoofer) from side part -1-.

### Installing

- Install in reverse order of removal.

## Antenna amplifier, removing and installing (sedan)

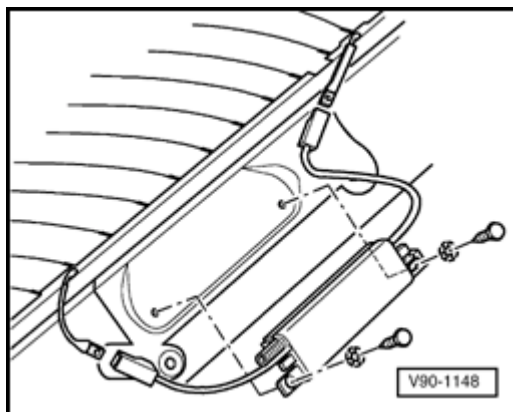
### Removing

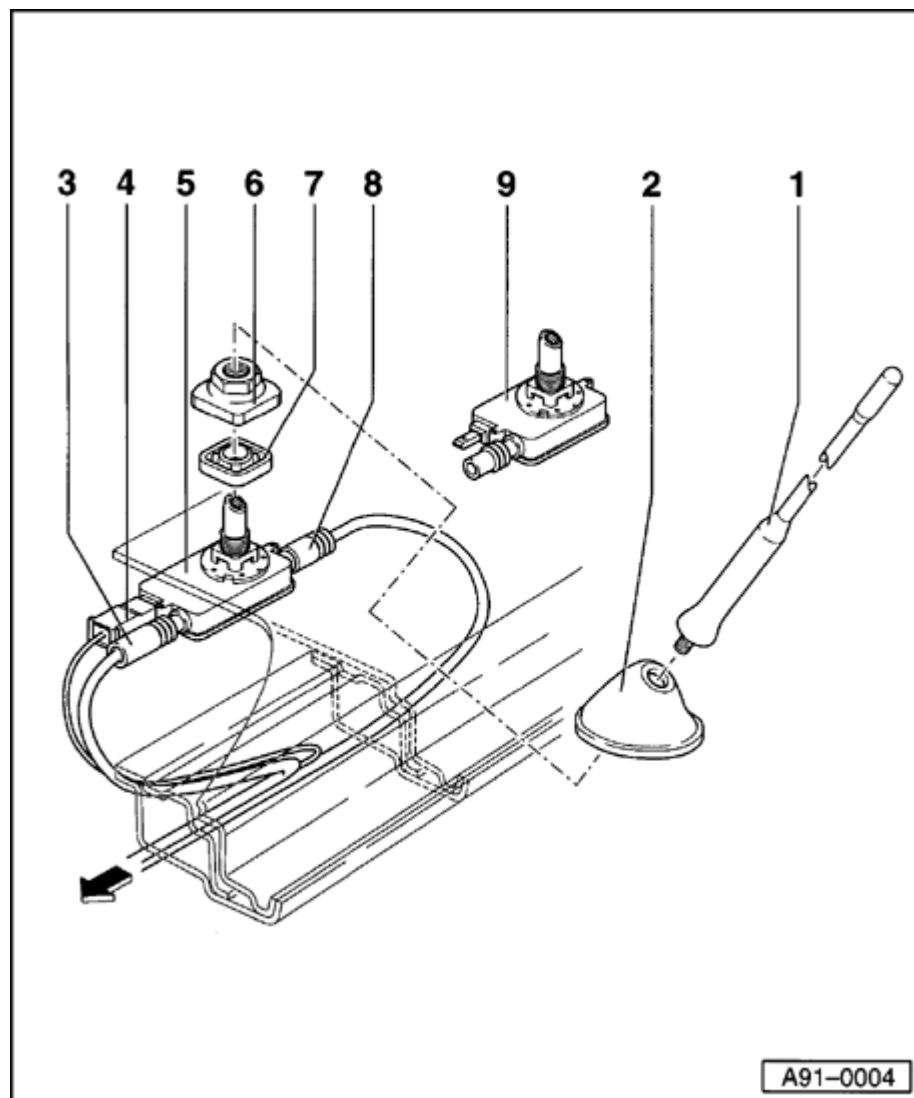
**A**

- Remove D-pillar trim ⇒ [Repair Manual, Body Interior, Repair Group 70](#).
- Disconnect antenna wire and disconnect all harness connectors.
- Remove hex screws and remove antenna amplifier.

### Installing

- Install in reverse order of removal.



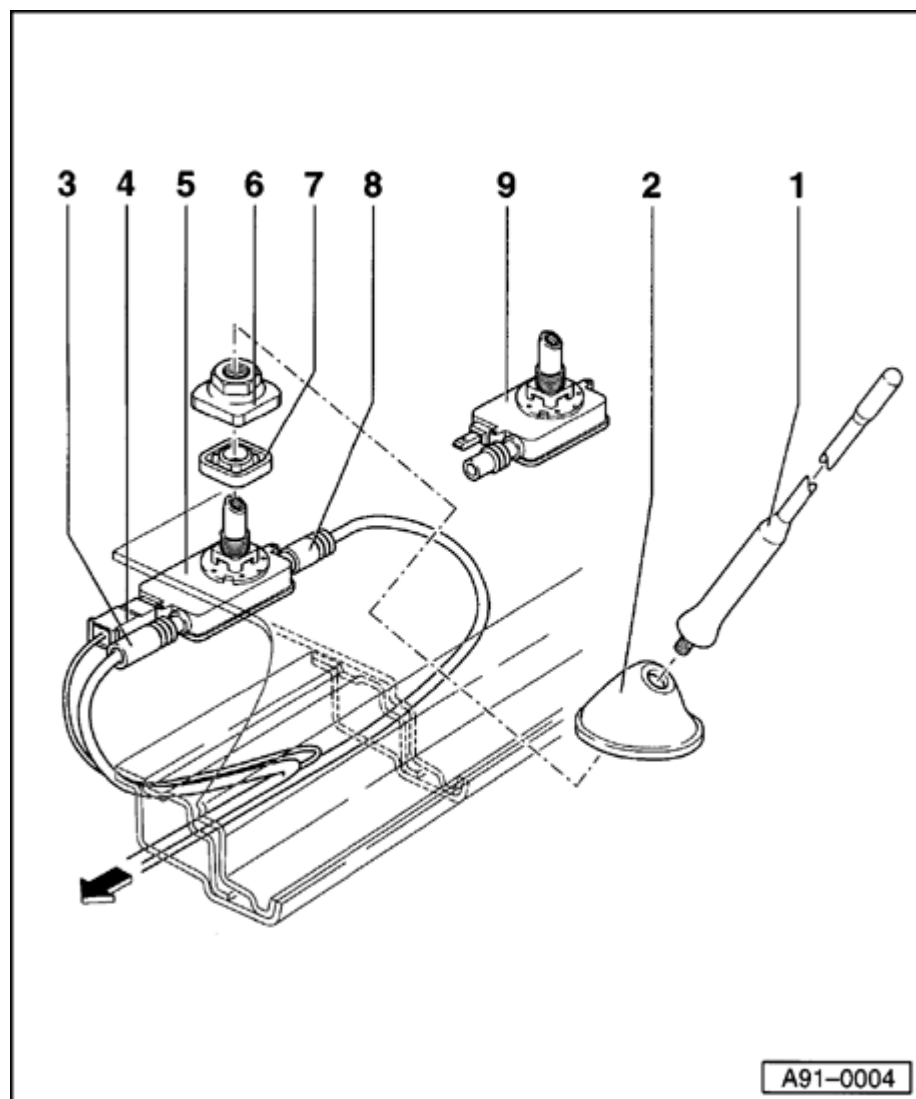


## Roof antenna, removing and installing (Avant)

### Overview

- 1 - Antenna
- 2 - Antenna base cover
- 3 - Harness connector for radio antenna wire
- 4 - Harness connector for switched positive supply (B+) (► m.y. 1997 only)
- 5 - Antenna base for radio/telephone combination antenna
- 6 - Mounting nut
- 7 - Gasket for antenna base
- 8 - Harness connector for telephone wire
- 9 - Antenna base for radio antenna

91-41



### Removing

- Using screwdriver, carefully pry cargo area dome light off of headliner.
- Disconnect antenna - 1 -.
- Pull cover - 2 - upward.
- Remove mounting nut - 6 -.
- Remove antenna base - 5 - or - 9 - toward inside of vehicle through headliner opening.
- Disconnect harness connectors - 3 -, - 4 - and if necessary - 8 -. Push back sliding sleeves - 3 - and - 8 - during disassembly.

### Installing

- Install in reverse order of removal.