

Radio system

General information

CAUTION!

Before beginning repairs on the electrical system:

- ◆ ***Obtain anti-theft radio security code if necessary.***
- ◆ ***Switch the ignition off.***
- ◆ ***Disconnect battery Ground (GND) strap.***
- ◆ ***On vehicles equipped with Audi Telematics by OnStar[®], switch-off the emergency (back-up) battery for the Telematic/Telephone Control Module prior to disconnecting vehicle battery. Use VAS 5051 Vehicle Diagnostic, Testing and Information System in mode "Guided Fault Finding" ⇒ [Page 91-119](#).***
- ◆ ***After reconnecting vehicle battery, re-code anti-theft radio if necessary and check operation. Also check operation of clock and power windows according to Repair Manual***

and/or Owner's Manual.

- ◆ *After reconnecting vehicle battery on vehicles equipped with Audi Telematics by OnStar[®], switch-on the emergency (back-up) battery for the Telematic/Telephone Control Module. Use VAS 5051 Vehicle Diagnostic, Testing and Information System in mode "Guided Fault Finding" ⇒ [Page 91-119](#).*

Note:

Further measures after reconnecting the voltage supply:

⇒ Repair Manual, Fuel Injection & Ignition, Repair Group 24

Before troubleshooting or servicing, technicians must be familiar with the functions and operation specifics of the applicable standard or optional radio system. Always read the radio owner's manual and review all radio, tape player and CD player/changer functions.

Notes:

- ◆ *When retrofitting, repairing or troubleshooting:*

⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations*

⇒ *Radio installation instructions*

- ◆ *For detailed instructions (e.g. removing and installing trim panels):*

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

- ◆ *Wherever possible, only genuine Audi parts should be used. Only then can trouble-free installation and optimal reception be guaranteed.*

- ◆ *All radio systems have anti-theft coding.*

- ◆ *All Audi radio systems are encoded for the instrument cluster in the convenience coding. It is not necessary to enter the code when disconnecting and reconnecting the power supply, removing and installing the same radio or removing and installing the same instrument cluster.*

Contact Corrosion

To minimize contact corrosion, only use approved fasteners (screws, nuts, bolts, washers etc.)

Where applicable, fasteners may have a special surface coating recognizable by a greenish color.

Coated fasteners must also be stored separately.

On Board Diagnostic (OBD)

Radio systems have extensive On Board Diagnostic (OBD) capabilities.

The radio unit has a Diagnostic Trouble Code (DTC) memory. If a malfunction occurs in one of the components or wires which is monitored by the system, a record of the type of malfunction is stored in DTC memory. Use VAS 5051 Vehicle Diagnostic, Testing and Information System in mode "Guided Fault Finding".

Retrofitting of radio systems

- ◆ The electrical connections on the factory-installed radio wiring harness are designed for genuine Audi radios.
- ◆ Radios with different types of electrical connections must be installed using adapter wires.
- ◆ 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.
- ◆ When other radio units are installed it can have an effect on the antenna amplifier, since the original Audi radio units have a remotely driven antenna (the voltage supply of the antenna amplifier is driven via a center wire of the high frequency cable). Use a remotely driven adaptor ⇒ parts catalog (vendor: Votex).



CD equipment, retrofitting

The wiring set for the CD changer unit is in the vehicle during production. The connecting cable can only be used with original Audi CD changers.



Transport mode, deactivating

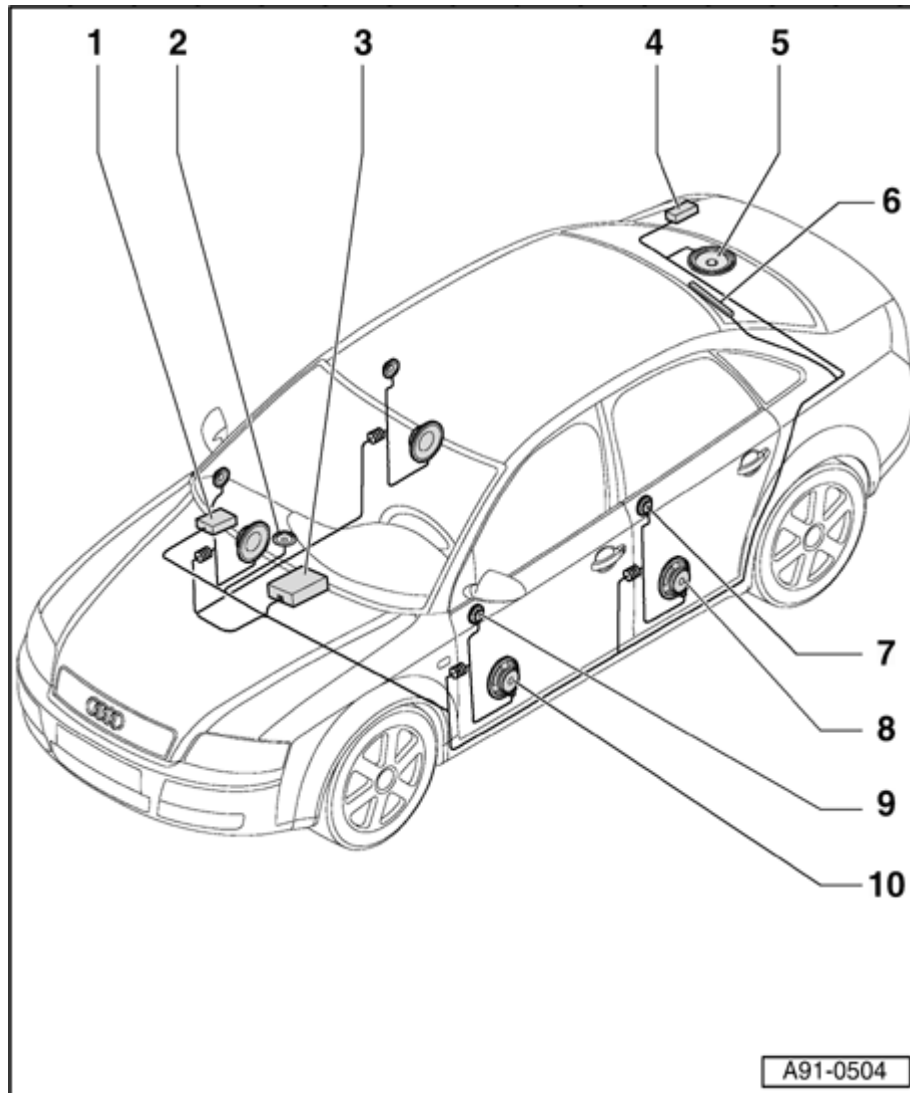
"Symphony" radio systems are disabled (switched-off) when Transport Mode is activated. This is necessary when vehicles are transported over long distances or stored for longer periods of time.

Audi A4 vehicles from 2002 are initially delivered to dealerships with radio system in Transport Mode, and must be deactivated before delivery to the customer.

Use VAS 5051 Vehicle Diagnostic, Testing and Information System in mode "Guided Fault Finding".

Further information

⇒ [Repair Manual, Maintenance, "Description of Work"](#)



"Concert II" and "Symphony II" radio systems (Sedan), component overview

1 - CD Changer Unit -R41-

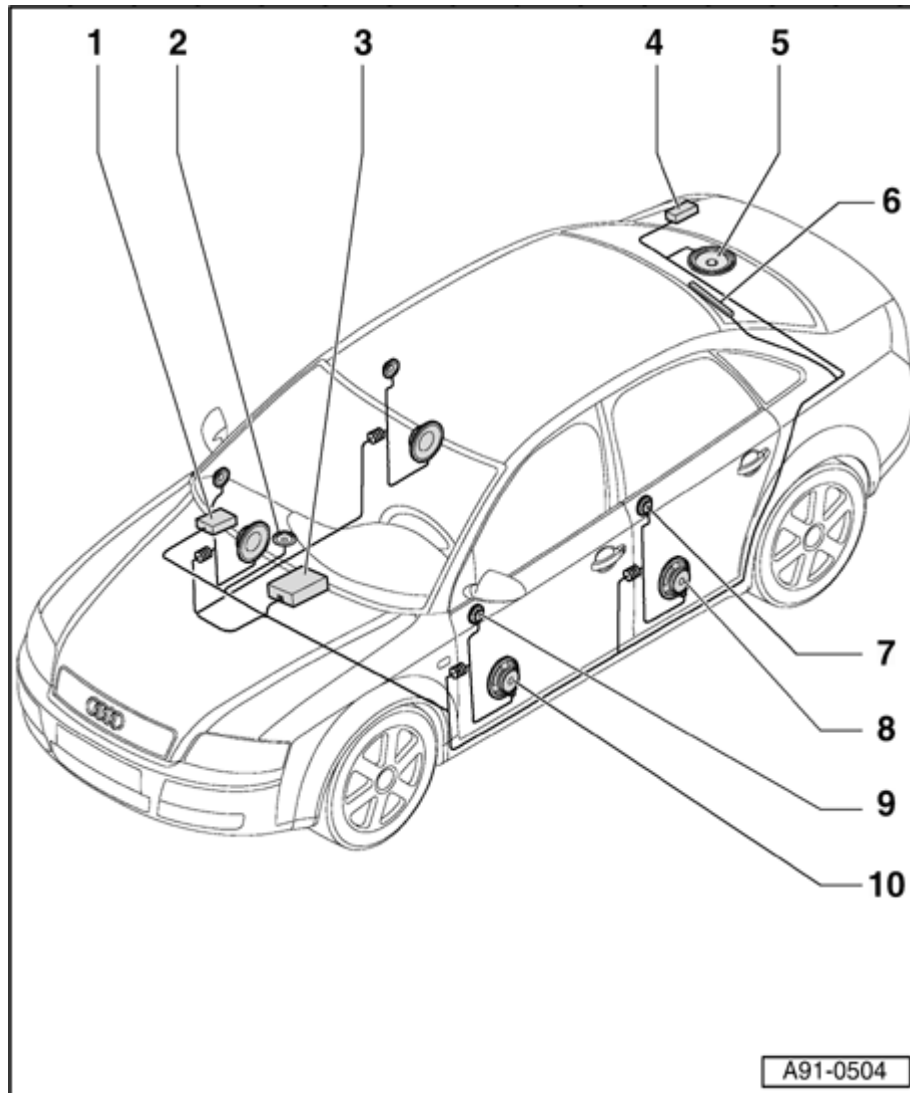
- ◆ Optional
- ◆ In glove compartment
- ◆ Removing and installing ⇒ [Page 91-48](#)
- ◆ Check wiring ⇒ [Page 91-50](#)

2 - Center Mid/High Range Loudspeaker - R158-

- ◆ In instrument panel
- ◆ Removing and installing ⇒ [Page 91-59](#)

3 - Radio -R-

- ◆ In instrument panel, center
- ◆ Removing and installing "Concert II" radio ⇒ [Page 91-44](#)
- ◆ Removing and installing "Symphony II" radio ⇒ [Page 91-46](#)



4 - Amplifier -R12- (for rear loudspeakers or BOSE® power amplifier with "BOSE® sound system")

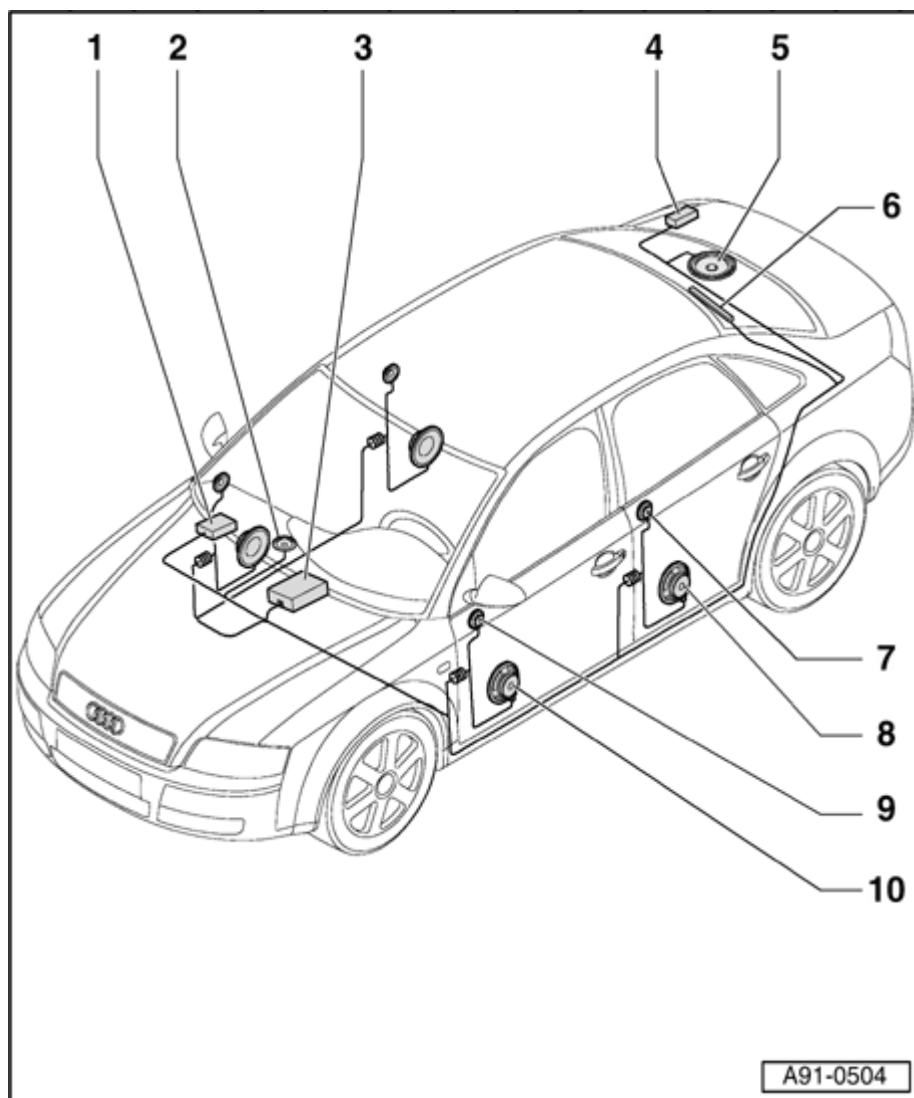
- ◆ In right rear luggage compartment behind side trim
- ◆ Removing and installing amplifier for rear loudspeakers ⇒ [Page 91-63](#)
- ◆ Removing and installing BOSE® power amplifier ⇒ [Page 91-65](#)

5 - Bass Loudspeaker -R100-

- ◆ Below rear shelf
- ◆ Removing and installing ⇒ [Page 91-61](#)

6 - Antenna Selection Control Module -J515-

- ◆ Under rear headliner trim
- ◆ Removing and installing ⇒ [Page 91-67](#)



7 - Rear Midrange Speakers -R34- &-R35-

- ◆ In upper rear door trim
- ◆ Removing and installing ⇒ [Page 91-58](#)

8 - Rear Bass Speakers - R15- &-R17-

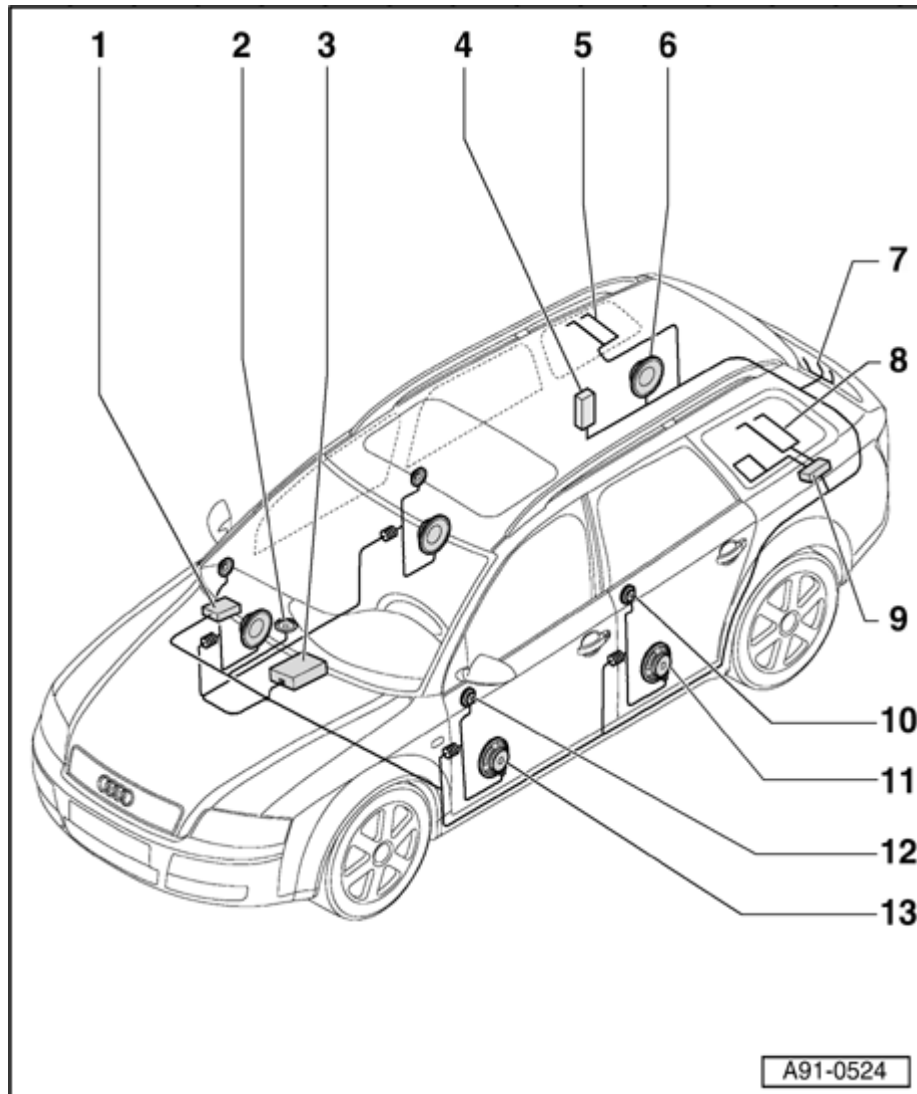
- ◆ In lower rear door trim
- ◆ Removing and installing ⇒ [Page 91-57](#)

9 - Front Midrange Speakers -R26- & -R27-

- ◆ In upper front door trim
- ◆ Removing and installing ⇒ [Page 91-55](#)

10 - Front Bass Speakers -R21- &-R23-

- ◆ In lower front door trim
- ◆ Removing and installing ⇒ [Page 91-54](#)



"Concert II" and "Symphony II" radio systems (Avant), component overview

1 - CD Changer Unit -R41-

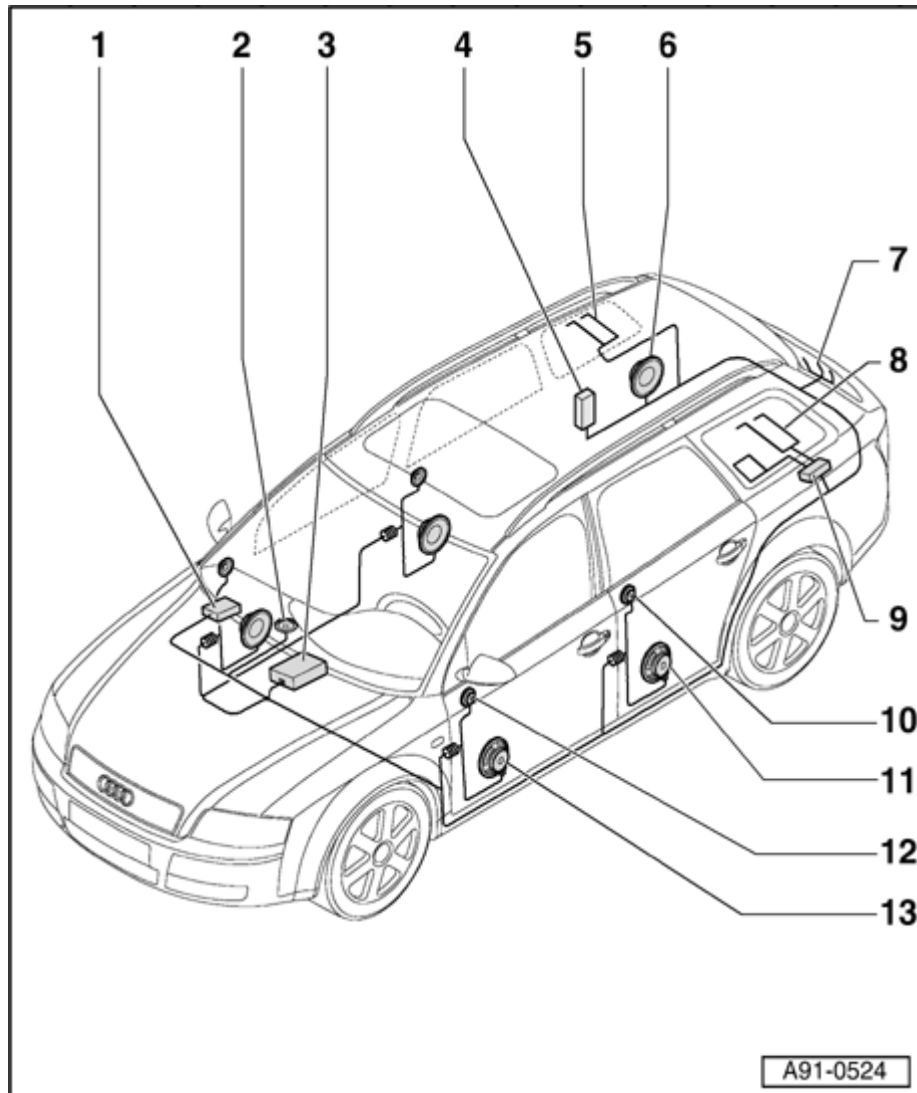
- ◆ Optional
- ◆ In glove compartment
- ◆ Removing and installing ⇒ [Page 91-48](#)
- ◆ Check wiring ⇒ [Page 91-50](#)

2 - Center Mid/High Range Loudspeaker - R158-

- ◆ In instrument panel
- ◆ Removing and installing ⇒ [Page 91-59](#)

3 - Radio -R-

- ◆ In instrument panel, center
- ◆ Removing and installing "Concert II" radio ⇒ [Page 91-44](#)
- ◆ Removing and installing "Symphony II" radio ⇒ [Page 91-46](#)



4 - Amplifier -R12- (for rear loudspeakers or BOSE[®] power amplifier only with "BOSE[®] sound system")

- ◆ In right rear luggage compartment behind side trim
- ◆ Removing and installing amplifier for rear loudspeakers ⇒ [Page 91-64](#)
- ◆ Removing and installing BOSE[®] power amplifier ⇒ [Page 91-66](#)

5 - Right rear window antenna

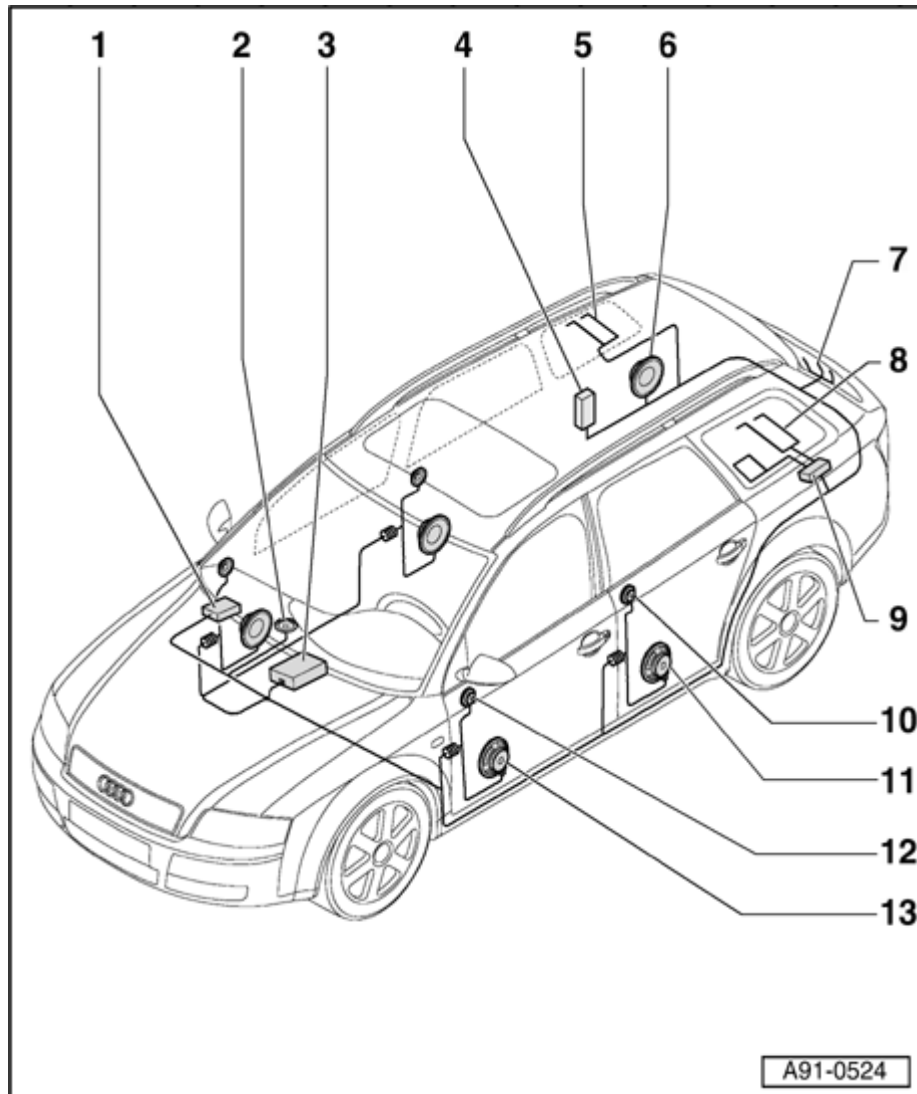
- ◆ With FM antenna 3

6 - Bass Loudspeaker -R100-

- ◆ In right rear luggage compartment behind side trim
- ◆ Removing and installing ⇒ [Page 91-62](#)

7 - Rear window antenna

- ◆ With FM antenna 2



8 - Left rear window antenna

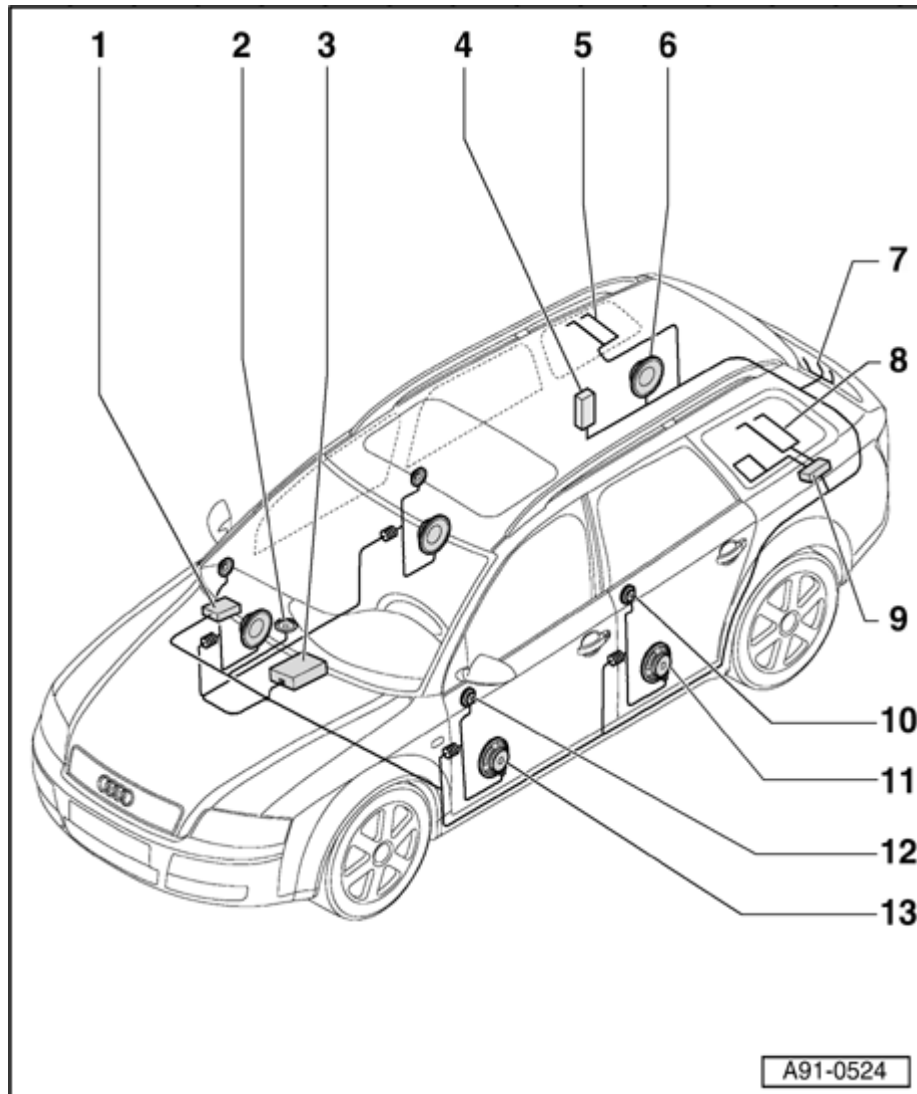
- ◆ With AM antenna and FM antenna 1

9 - Left Antenna Module -R-108-

- ◆ In left rear luggage compartment behind side trim
- ◆ Removing and installing ⇒ [Page 91-68](#)

10 - Rear Midrange Speakers -R34- &-R35-

- ◆ In upper rear door trim
- ◆ Removing and installing ⇒ [Page 91-58](#)



11 - Rear Bass Speakers -R15- &-R17-

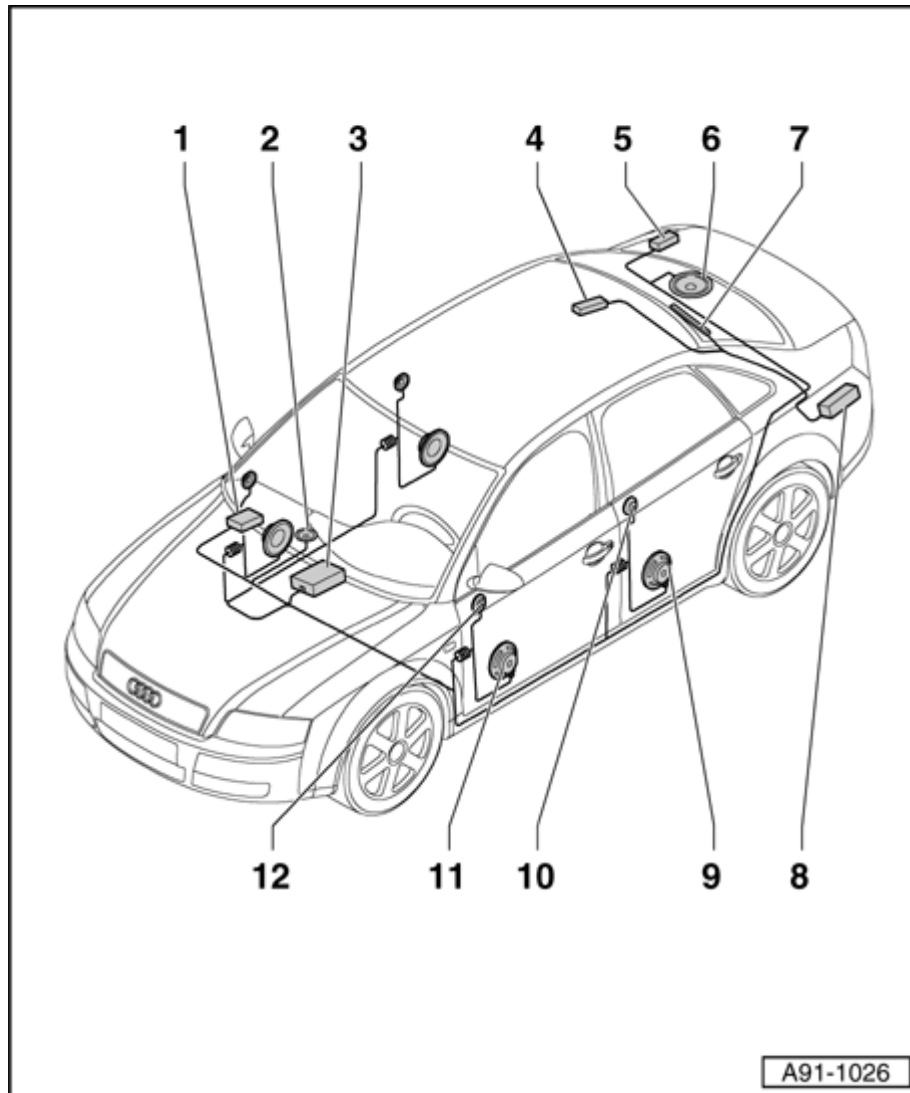
- ◆ In lower rear door trim
- ◆ Removing and installing ⇒ [Page 91-57](#)

12 - Front Midrange Speakers -R26- & -R27-

- ◆ In upper front door trim
- ◆ Removing and installing ⇒ [Page 91-55](#)

13 - Front Bass Speakers -R21- &-R23-

- ◆ In lower front door trim
- ◆ Removing and installing ⇒ [Page 91-54](#)



Radio systems with Satellite Digital Audio Radio Service (SDARS) (Sedan), component overview

1 - CD Changer Unit -R41-

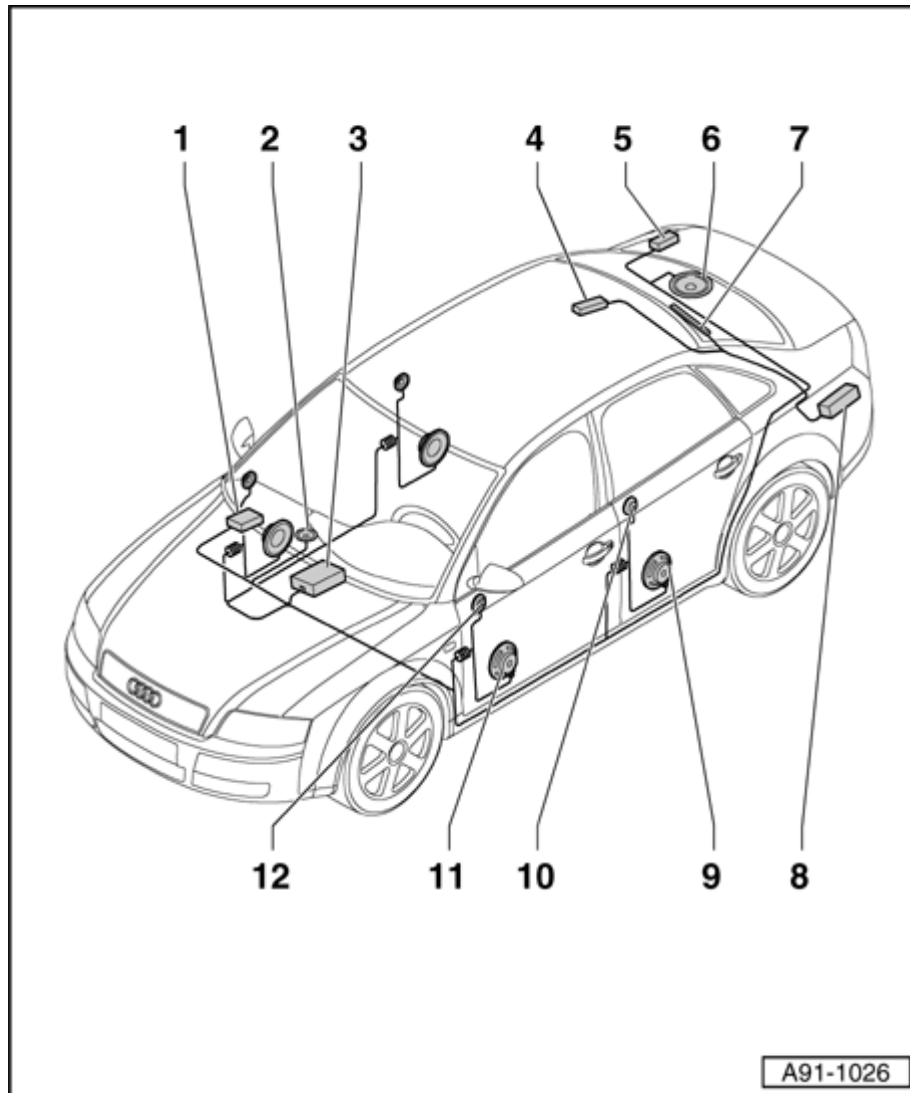
- ◆ Optional
- ◆ In glove compartment
- ◆ Removing and installing ⇒ [Page 91-48](#)
- ◆ Check wiring ⇒ [Page 91-50](#)

2 - Center Mid/High Range Loudspeaker - R158-

- ◆ In instrument panel
- ◆ Removing and installing ⇒ [Page 91-59](#)

3 - Radio -R-

- ◆ In instrument panel, center
- ◆ Radio "Concert II" Removing and installing ⇒ [Page 91-44](#)
- ◆ Radio "Symphony II" Removing and installing ⇒ [Page 91-46](#)



4 - Satellite Tuner Antenna -R-172-

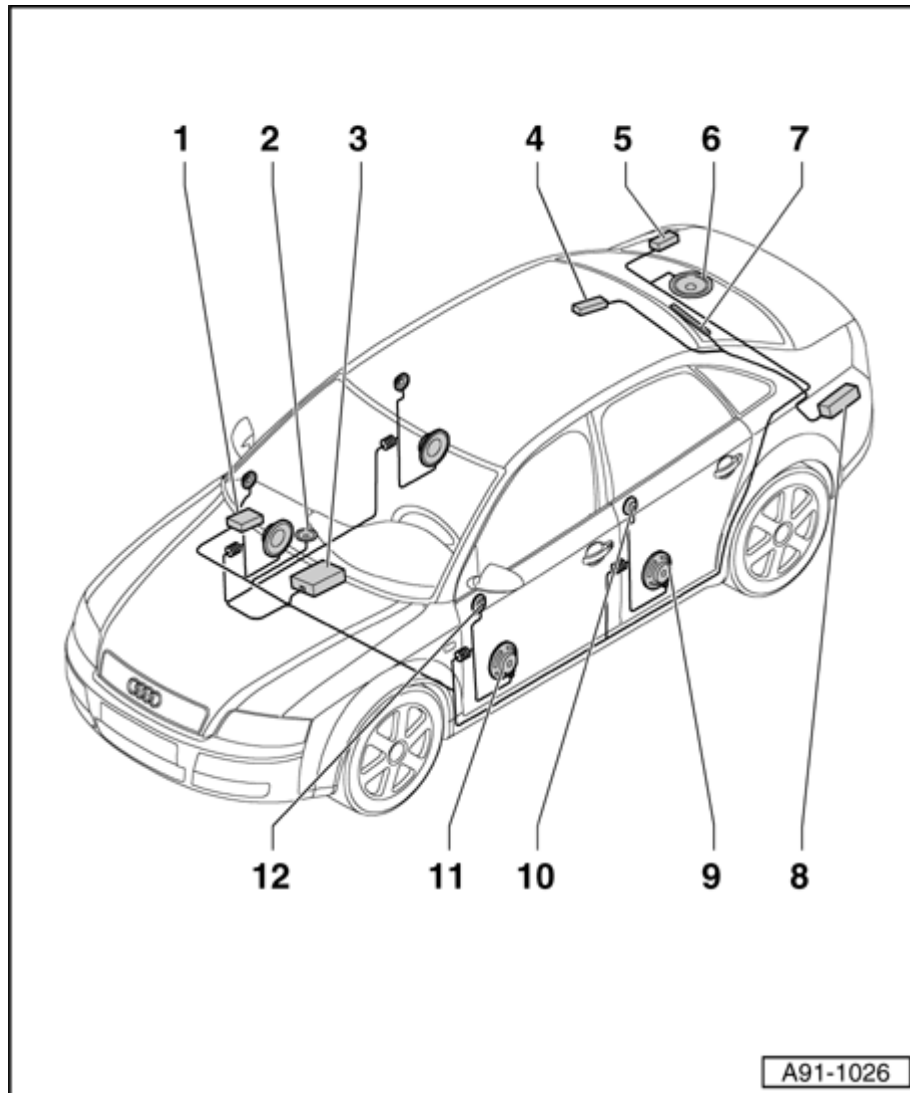
- ◆ On roof
- ◆ Also for Telematics and Navigation
- ◆ Removing and installing ⇒ [Page 91-69](#)

5 - Amplifier -R12- (for rear loudspeakers or BOSE® power amplifier only with "BOSE® sound system")

- ◆ In right rear luggage compartment behind side trim
- ◆ Removing and installing amplifier for rear loudspeakers ⇒ [Page 91-64](#)
- ◆ Removing and installing BOSE® power amplifier ⇒ [Page 91-66](#)

6 - Bass Loudspeaker -R100-

- ◆ Under rear parcel shelf
- ◆ Removing and installing ⇒ [Page 91-61](#)



7 - Antenna Selection Control Module -J515-

- ◆ Under rear headliner trim
- ◆ Removing and installing ⇒ [Page 91-67](#)

8 - Satellite Radio -R-146-

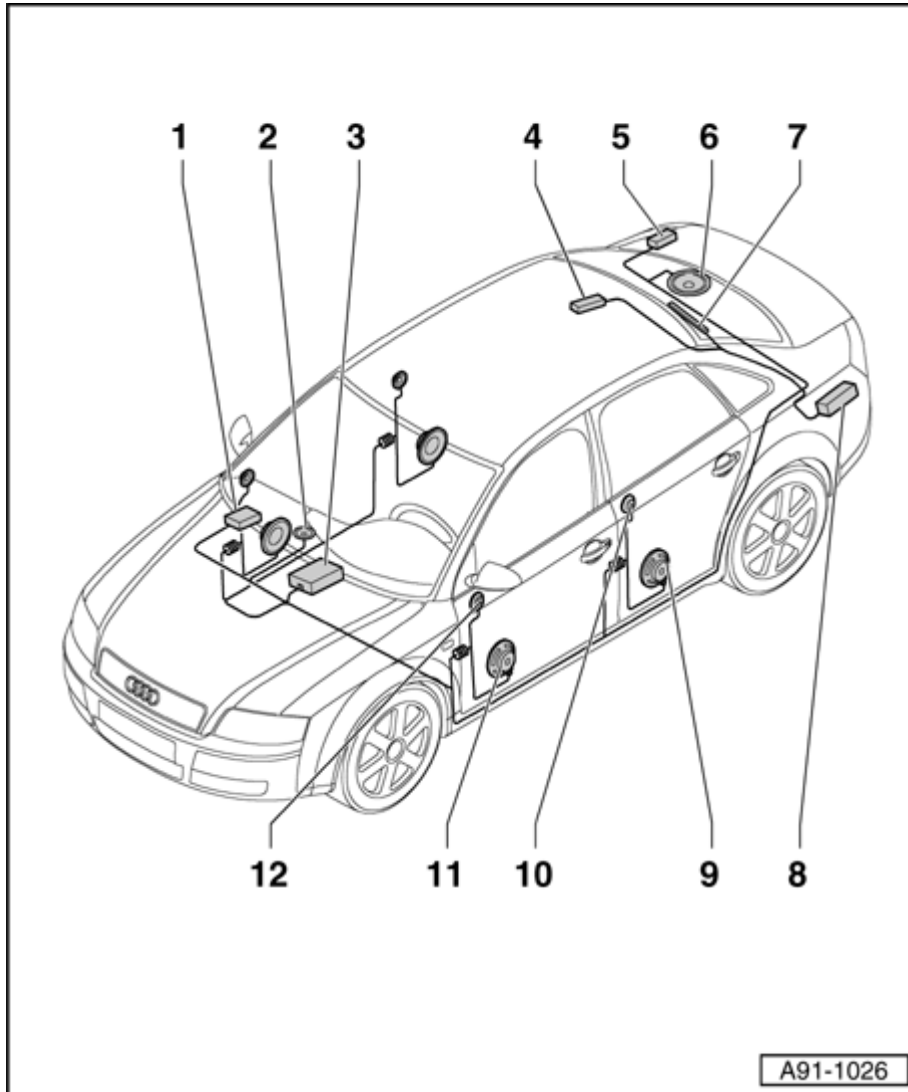
- ◆ In left rear luggage compartment behind side trim
- ◆ Removing and installing ⇒ [Page 91-52](#)

9 - Rear Bass Speakers -R-15- &-R17-

- ◆ In lower rear door trim
- ◆ Removing and installing ⇒ [Page 91-57](#)

10 - Rear Midrange Speakers -R-34- & -R35-

- ◆ In upper rear door trim
- ◆ Removing and installing ⇒ [Page 91-58](#)

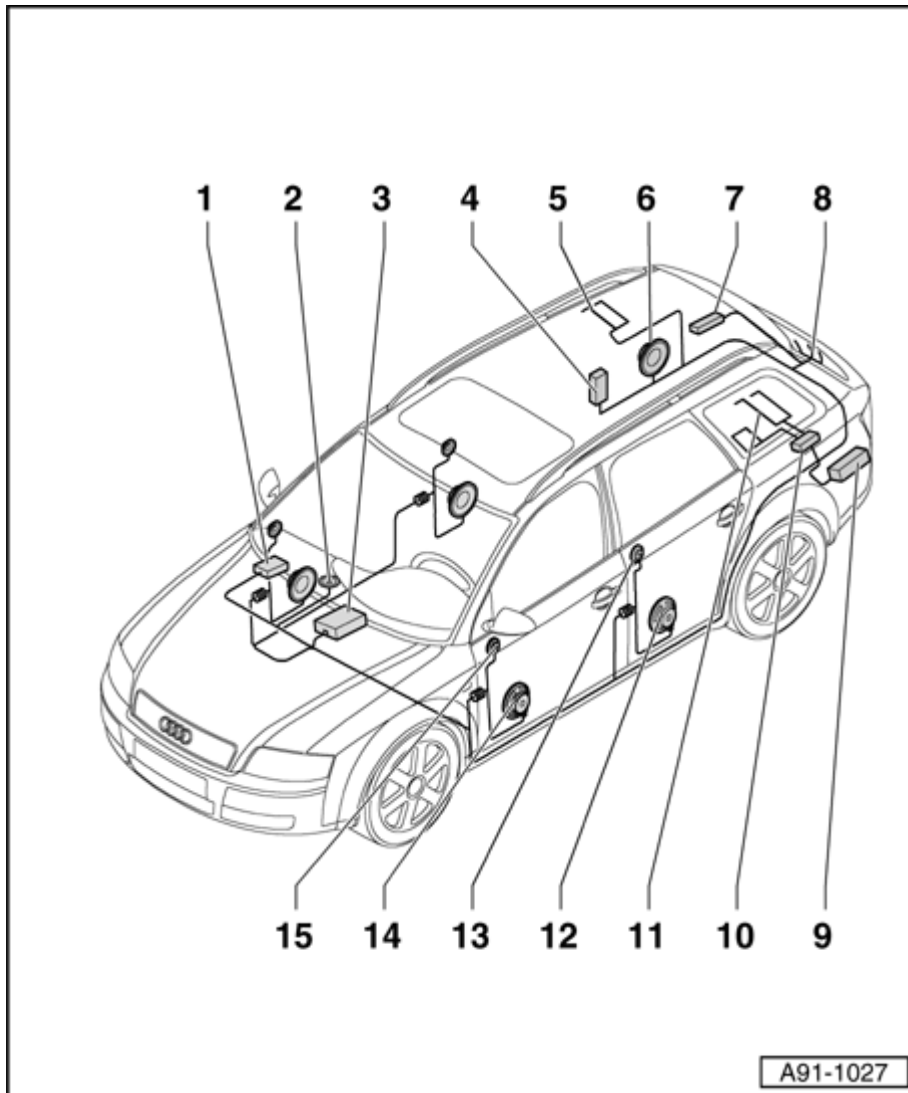


11 - Front Bass Speakers -R-21- &-R23-

- ◆ In lower front door trim
- ◆ Removing and installing ⇒ [Page 91-54](#)

12 - Front Midrange Speakers -R-26- & -R27-

- ◆ In upper front door trim
- ◆ Removing and installing ⇒ [Page 91-55](#)



Radio systems with Satellite Digital Audio Radio Service (SDARS) (Avant), component overview

1 - CD Changer Unit -R41-

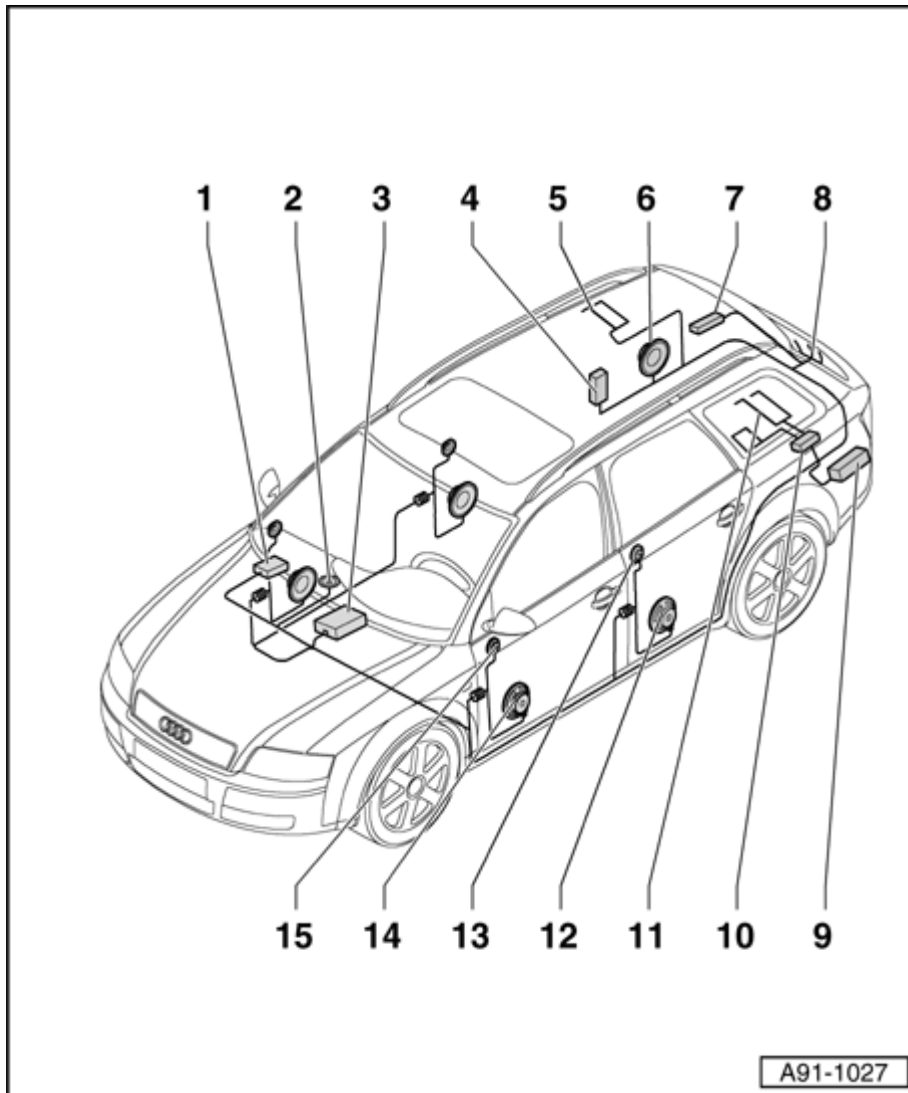
- ◆ Optional
- ◆ In glove compartment
- ◆ Removing and installing ⇒ [Page 91-48](#)
- ◆ Check wiring ⇒ [Page 91-50](#)

2 - Center Mid/High Range Loudspeaker -R-158

- ◆ In instrument panel
- ◆ Removing and installing ⇒ [Page 91-59](#)

3 - Radio -R-

- ◆ In instrument panel, center
- ◆ Radio "Concert II" Removing and installing ⇒ [Page 91-44](#)
- ◆ Radio "Symphony II" Removing and installing ⇒ [Page 91-46](#)



4 - Amplifier -R12- (for rear loudspeakers or BOSE® power amplifier only with "BOSE® sound system")

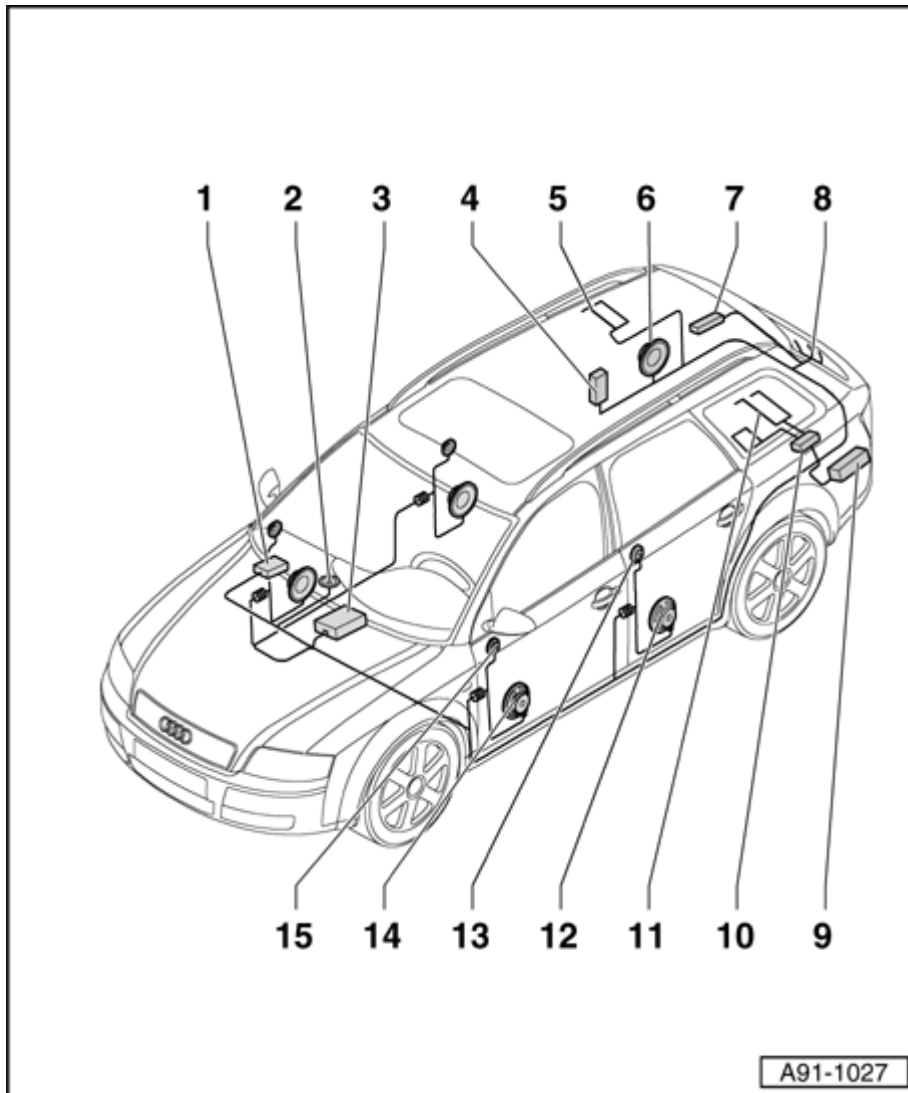
- ◆ In right rear luggage compartment behind side trim
- ◆ Removing and installing amplifier for rear loudspeakers ⇒ [Page 91-64](#)
- ◆ Removing and installing BOSE® power amplifier ⇒ [Page 91-66](#)

5 - Right rear window antenna

- ◆ With FM-antenna 3

6 - Bass Loudspeaker -R-100-

- ◆ In right rear luggage compartment behind side trim
- ◆ Removing and installing ⇒ [Page 91-62](#)



7 - Satellite Tuner Antenna -R-172-

- ◆ On roof
- ◆ Also for Telematics and Navigation
- ◆ Removing and installing ⇒ [Page 91-70](#)

8 - Rear window antenna

- ◆ With FM-antenna 2

9 - Satellite Radio -R146-

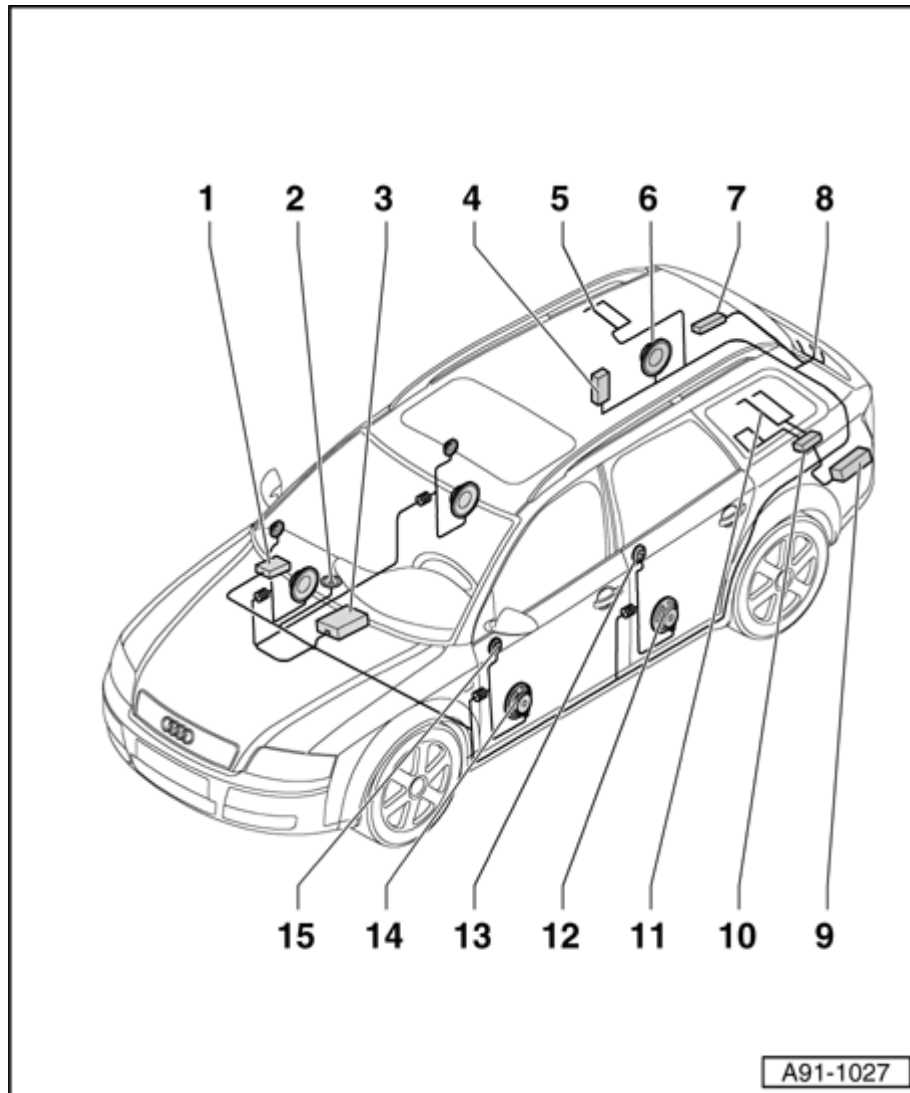
- ◆ In left rear luggage compartment behind side trim
- ◆ Removing and installing ⇒ [Page 91-53](#)

10 - Left Antenna Module -R-108-

- ◆ In left rear luggage compartment behind side trim
- ◆ Removing and installing ⇒ [Page 91-68](#)

11 - Left rear window antenna

- ◆ With AM-antenna and FM-antenna 1



12 - Rear Bass Speakers -R-15, -R-17

- ◆ In lower rear door trim
- ◆ Removing and installing ⇒ [Page 91-57](#)

13 - Rear Midrange Speakers -R-34, -R-35

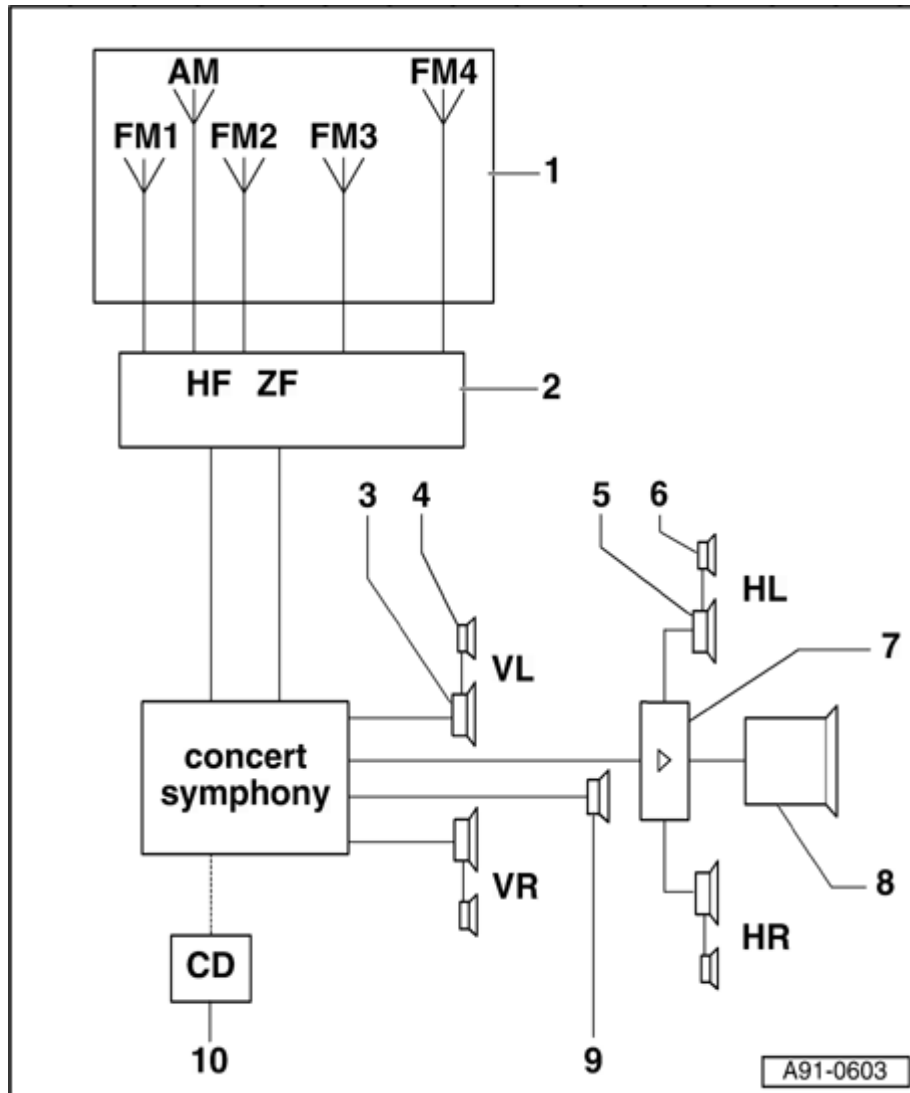
- ◆ In upper rear door trim
- ◆ Removing and installing ⇒ [Page 91-58](#)

14 - Front Bass Speakers -R-21, -R-23

- ◆ In lower front door trim
- ◆ Removing and installing ⇒ [Page 91-54](#)

15 - Front Midrange Speakers -R-26, -R-27

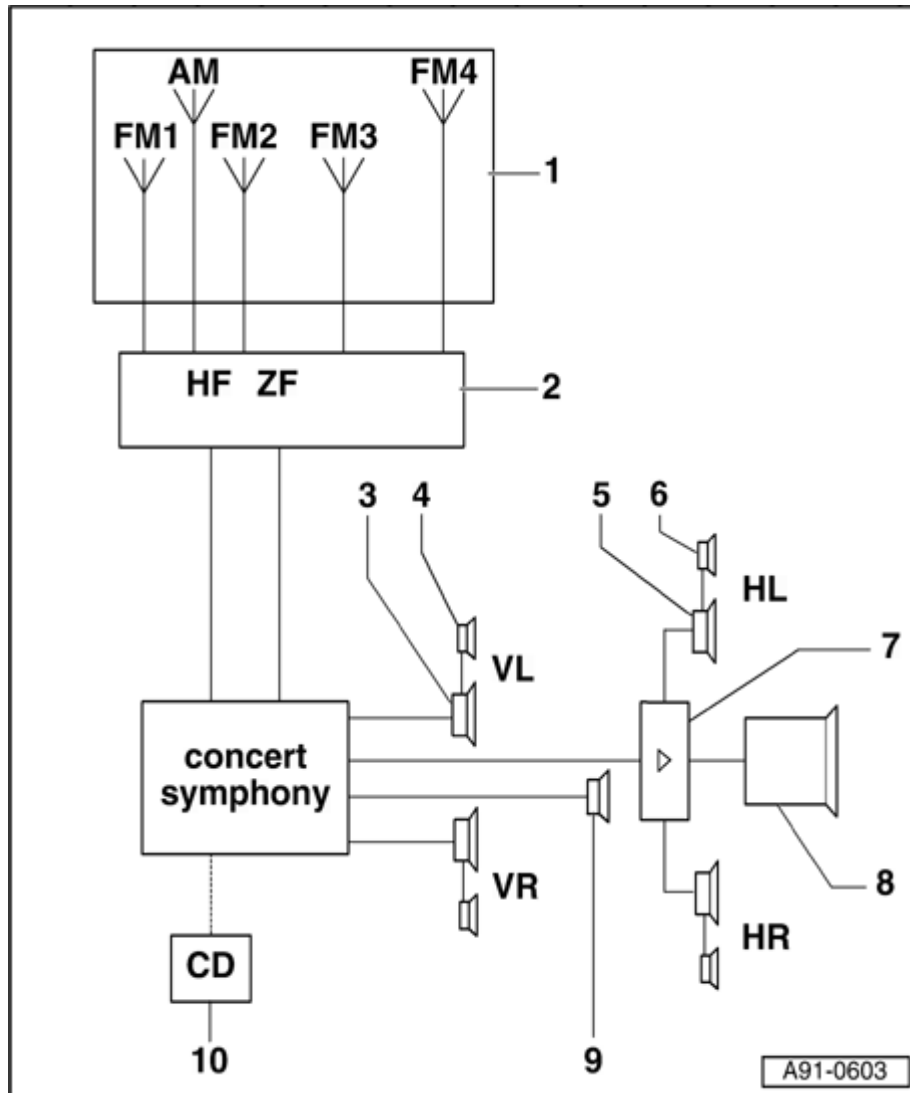
- ◆ In upper front door trim
- ◆ Removing and installing ⇒ [Page 91-55](#)



Radio systems, layout and terminal assignments

"Concert II" and "Symphony II" radio system (Sedan), layout

- 1 - Rear window antennas
- 2 - Antenna Selection Control Module -J515-
 - ◆ Under rear headliner trim
- 3 - Front Bass Speakers
 - ◆ In lower front door trim
- 4 - Front Midrange Speakers
 - ◆ In upper front door trim
- 5 - Rear Bass Speakers
 - ◆ In lower rear door trim



6 - Rear Midrange Speakers

- ◆ In upper rear door trim

7 - Amplifier -R12- (for rear loudspeakers)

- ◆ In right rear luggage compartment behind side trim

8 - Bass Loudspeaker

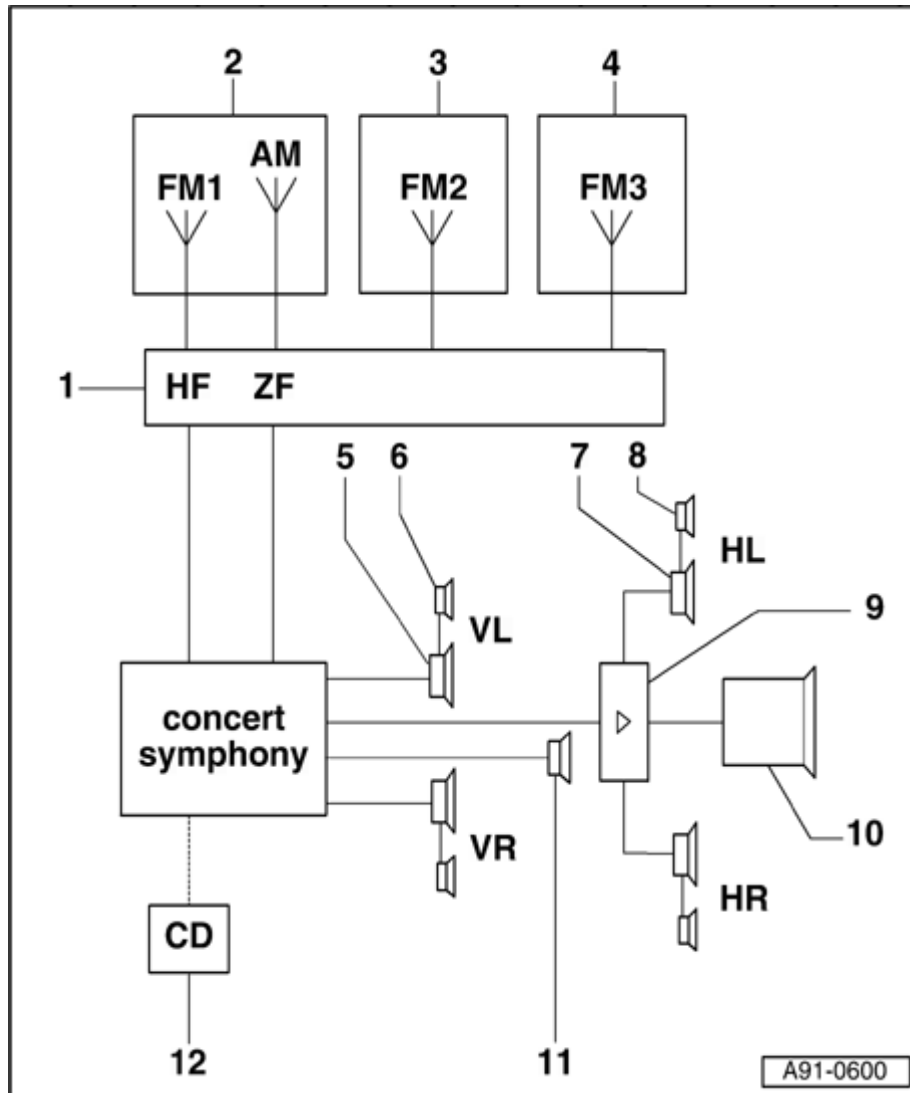
- ◆ Below rear shelf

9 - Center Mid/High Range Loudspeaker

- ◆ In instrument panel

10 - CD Changer Unit -R41-

- ◆ Optional
- ◆ In glove compartment



"Concert II" and "Symphony II" radio systems (Avant), layout

1 - Antenna Selection Control Module -J515-

- ◆ In left rear luggage compartment behind side trim

2 - Left rear window antenna

3 - Rear window antenna

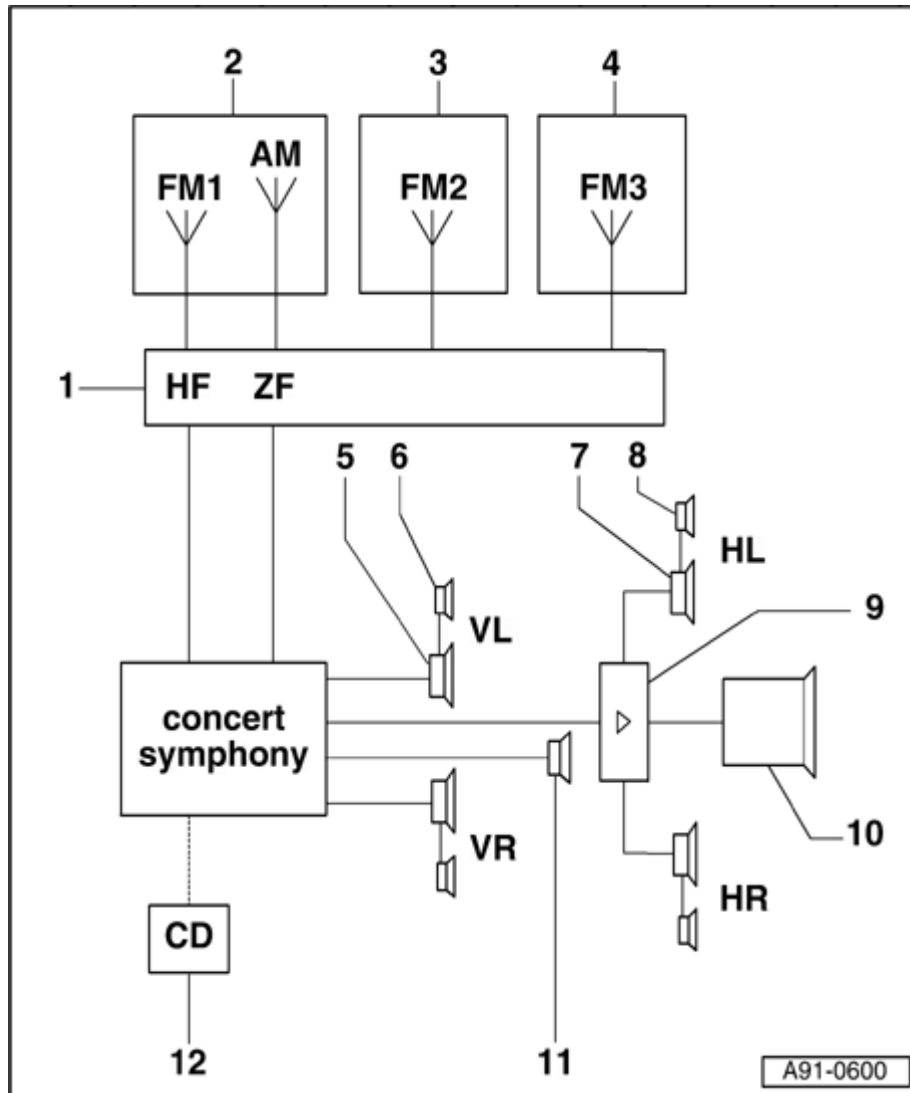
4 - Right rear window antenna

5 - Front Bass Speakers

- ◆ In lower front door trim

6 - Front Midrange Speakers

- ◆ In upper front door trim



7 - Rear Bass Speakers

- ◆ In lower rear door trim

8 - Rear Midrange Speakers

- ◆ In upper rear door trim

9 - Amplifier -R12- (for rear loudspeakers)

- ◆ In right rear luggage compartment behind side trim

10 - Bass Loudspeaker

- ◆ In right rear luggage compartment behind side trim

11 - Center Mid/High Range Loudspeaker

- ◆ In instrument panel

12 - CD Changer Unit -R41-

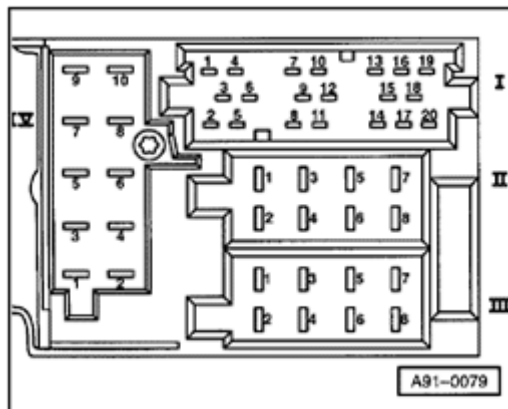
- ◆ Optional
- ◆ In glove compartment



"Concert II" and "Symphony II", Multi-pin connector terminal assignments

Note:

Terminals which are not listed are vacant/unassigned.



Multi-pin connector I, 20-pin - black

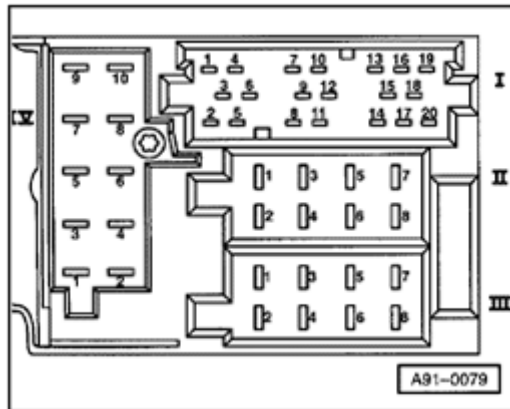
- 1 - Line output - left rear
- 2 - Line output - right rear
- 3 - Line output, Ground (GND)
- 4 - Line output - left front
- 5 - Line output - right front
- 6 - Switched positive for power amplifier
- 7 - CAN Bus - High (Infotainment)
- 10 - Ground (GND) (CD changer)
- 12 - CAN Bus - Low (Infotainment)
- 13 - CD bus data input (CD changer)
- 14 - CD bus data output (CD changer)
- 15 - CD clock (CD changer)
- 16 - Battery positive B+ (CD changer)

17 - Switched positive for CD changer

18 - Ground (GND) Line output (CD changer)

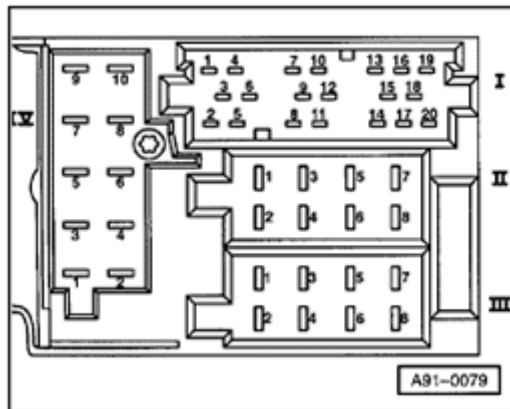
19 - Line output - left (CD changer)

20 - Line output - right (CD changer)



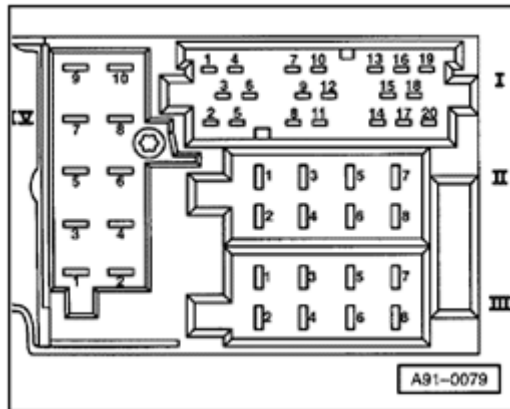
A Multi-pin connector II, 8-pin, brown

- 3 - Loudspeaker +, right front
- 4 - Loudspeaker -, right front
- 5 - Loudspeaker + left front
- 6 - Loudspeaker - left front



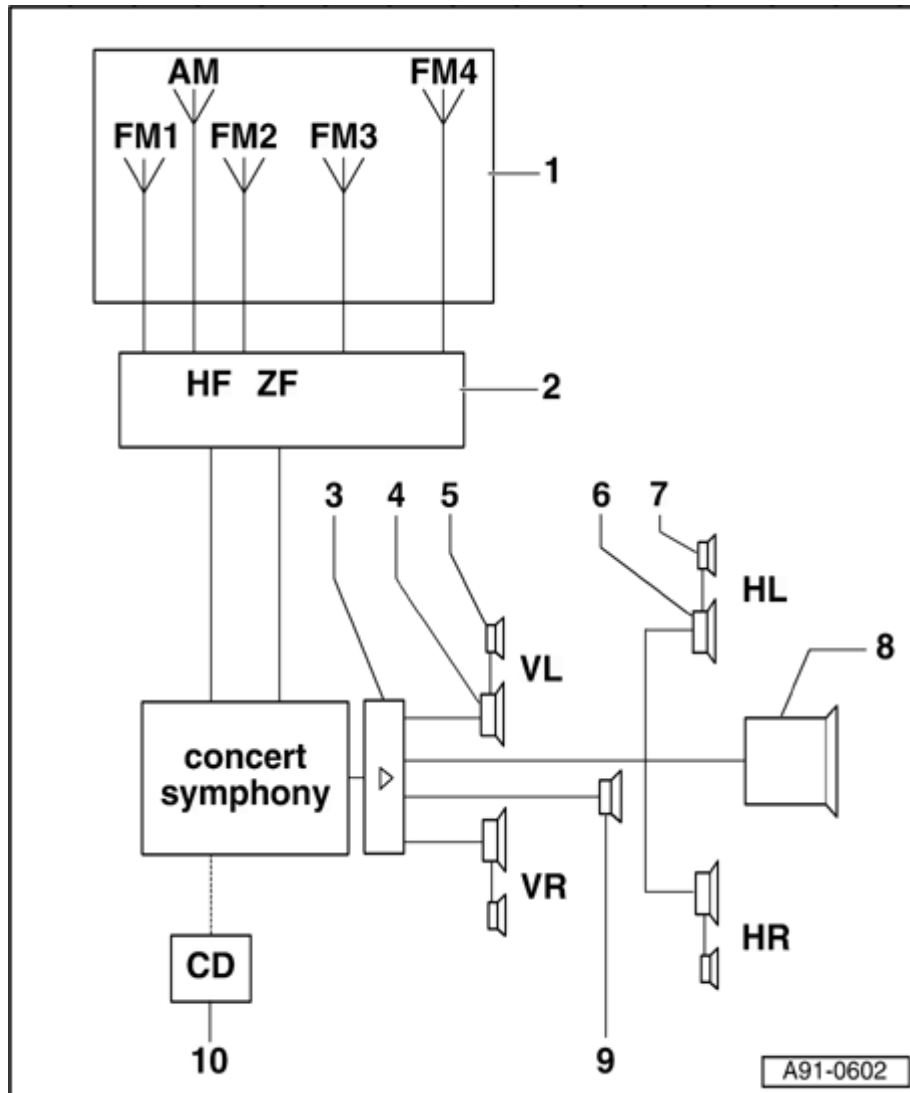
A Multi-pin connector III, 8-pin, black

- 2 - Anti-theft signal
- 3 - Data Link Connector (DLC)
- 7 - Supply voltage B+ (terminal 30)
- 8 - Ground (GND) (terminal 31)



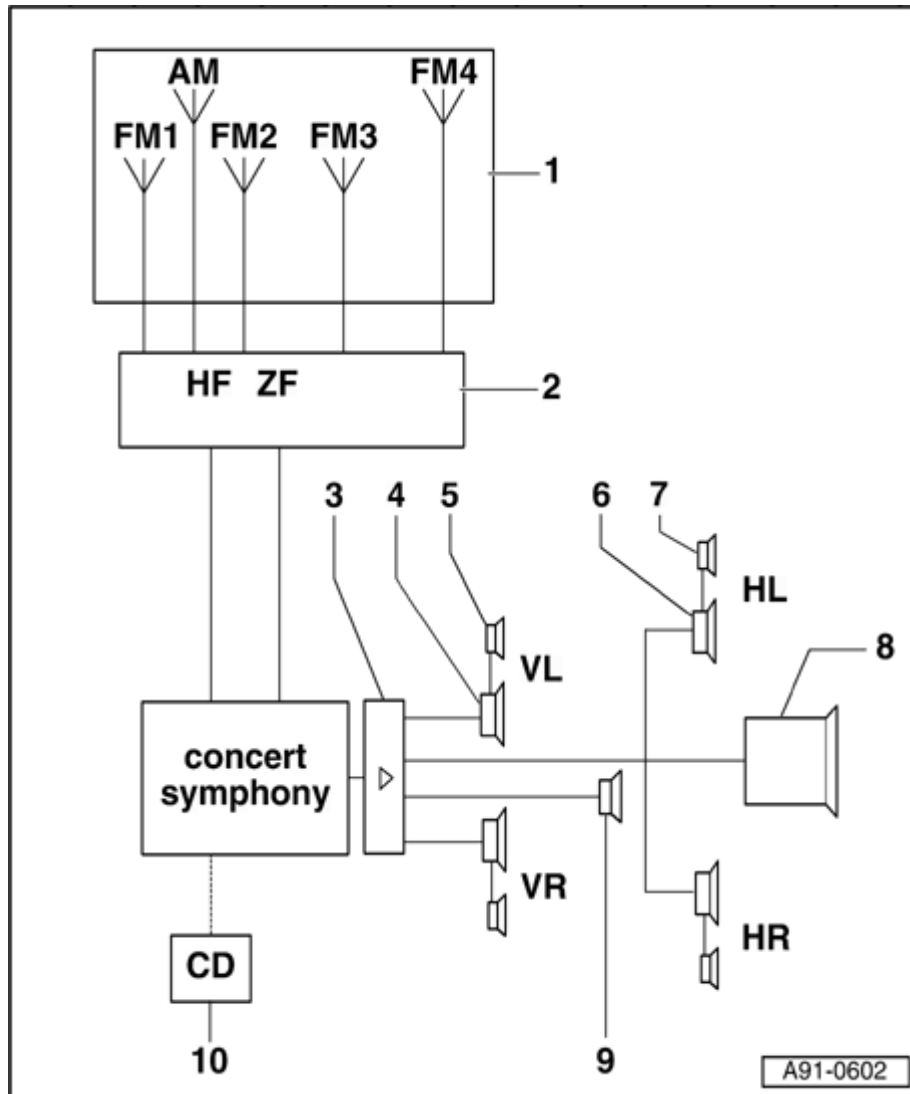
A Multi-pin connector IV, 10-pin, red

- 1 - Telephone mute (low frequency mute)
- 3 - Telephone (low frequency +) (not on vehicles with navigation system)
- 4 - Telephone (low frequency -) (not on vehicles with navigation system)
- 5 - Navigation system (low frequency+)
- 6 - Navigation system (low frequency-)
- 7 - Navigation system control wire



"Concert II" and "Symphony II" radio systems with "BOSE® sound system" (Sedan), layout

- 1 - Rear window antennas**
- 2 - Antenna Selection Control Module -J515-**
 - ◆ Under rear headliner trim
- 3 - BOSE® power amplifier**
 - ◆ In right rear luggage compartment behind side trim
- 4 - Front Bass Speakers**
 - ◆ In lower front door trim
- 5 - Front Midrange Speakers**
 - ◆ In upper front door trim



6 - Rear Bass Speakers

- ◆ In lower rear door trim

7 - Rear Midrange Speakers

- ◆ In upper rear door trim

8 - Bass Loudspeaker

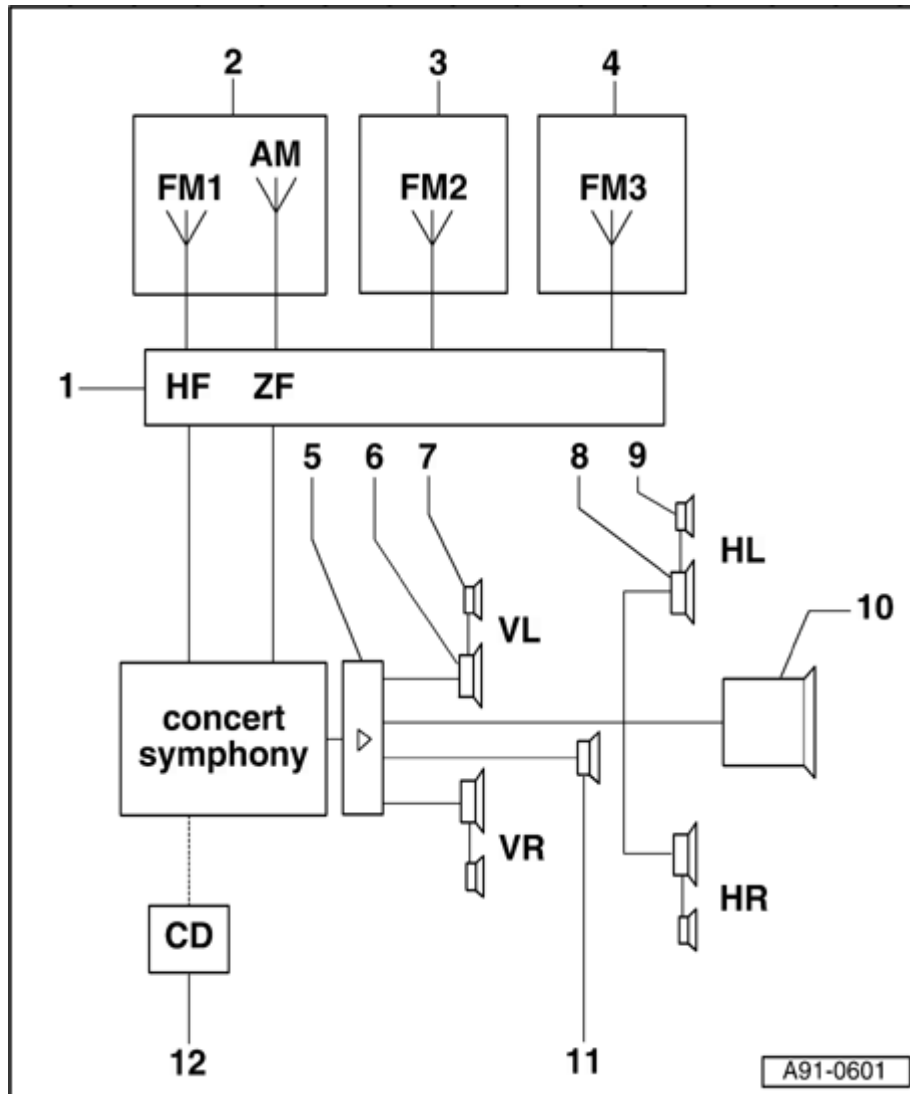
- ◆ Below rear shelf

9 - Center Mid/High Range Loudspeaker

- ◆ In instrument panel

10 - CD Changer Unit -R41-

- ◆ Optional
- ◆ In glove compartment



"Concert II" and "Symphony II" radio systems with "BOSE® sound system" (Avant), layout

1 - Left Antenna Module

- ◆ In left rear luggage compartment behind side trim

2 - Left rear window antenna

3 - Rear window antenna

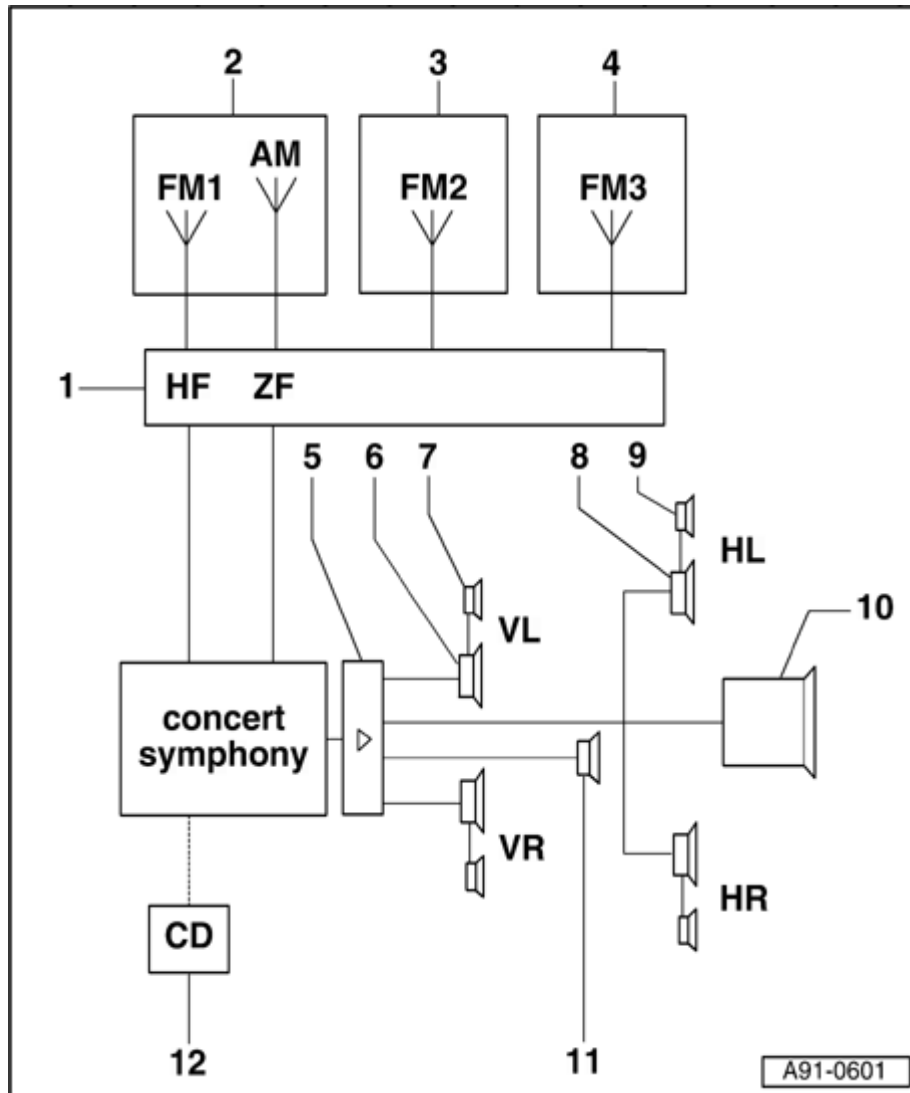
4 - Right rear window antenna

5 - BOSE® power amplifier

- ◆ In right rear luggage compartment behind side trim

6 - Front Bass Speakers

- ◆ In lower front door trim



7 - Front Midrange Speakers

- ◆ In upper front door trim

8 - Rear Bass Speakers

- ◆ In lower rear door trim

9 - Rear Midrange Speakers

- ◆ In upper rear door trim

10 - Bass Loudspeaker

- ◆ Below rear shelf

11 - Center Mid/High Range Loudspeaker

- ◆ In instrument panel

12 - CD Changer Unit -R41-

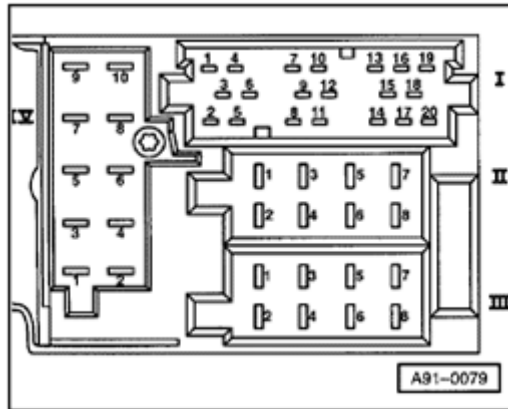
- ◆ Optional
- ◆ In glove compartment



"Concert II" and "Symphony II" radio systems with "BOSE® sound system", Multi-pin connector terminal assignments

Note:

Terminals which are not listed are vacant/unassigned.



Multi-pin connector I, 20-pin - black

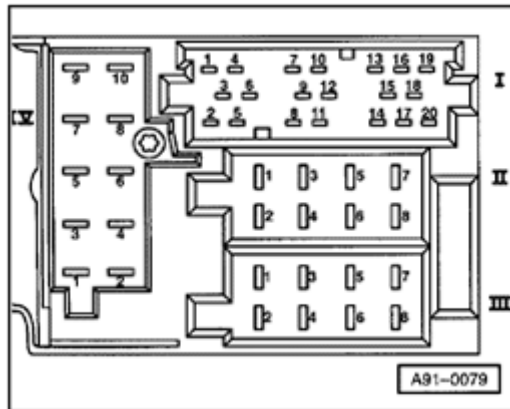
- 1 - Line output - left rear
- 2 - Line output - right rear
- 3 - Line output, Ground (GND)
- 4 - Line output - left front
- 5 - Line output - right front
- 6 - Switched positive for BOSE® power amplifier
- 7 - CAN Bus - High (Infotainment)
- 10 - Ground (GND) (CD changer)
- 12 - CAN Bus - Low (Infotainment)
- 13 - CD bus data input (CD changer)
- 14 - CD bus data output (CD changer)
- 15 - CD clock (CD changer)
- 16 - Battery positive B+ (CD changer)

17 - Switched positive for CD changer

18 - Ground (GND) line output (CD changer)

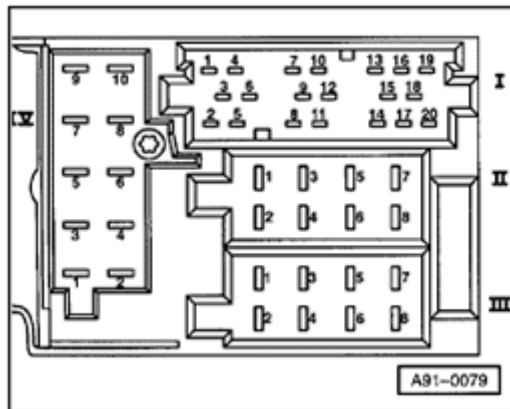
19 - Line output - left (CD changer)

20 - Line output - right (CD changer)



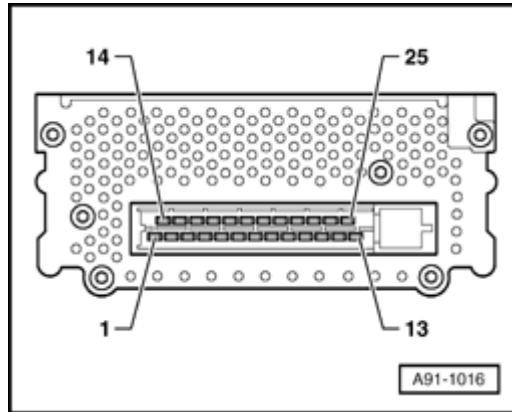
A Multi-pin connector III, 8-pin, black

- 1 - BOSE coding (Ground (GND))
- 2 - Anti-theft signal
- 3 - Data Link Connector (DLC)
- 7 - Supply voltage (terminal 30)
- 8 - Ground (GND) (terminal 31)



A Multi-pin connector IV, 10-pin, red

- 1 - Telephone mute (low frequency mute)
- 3 - Telephone (low frequency+) (not on vehicles with navigation system)
- 4 - Telephone (low frequency-) (not on vehicles with navigation system)
- 5 - Navigation system (low frequency+)
- 6 - Navigation system (low frequency-)
- 7 - Navigation system control wire



BOSE® amplifier, multi-pin connector assignments

Multi-pin connector, 25-pin

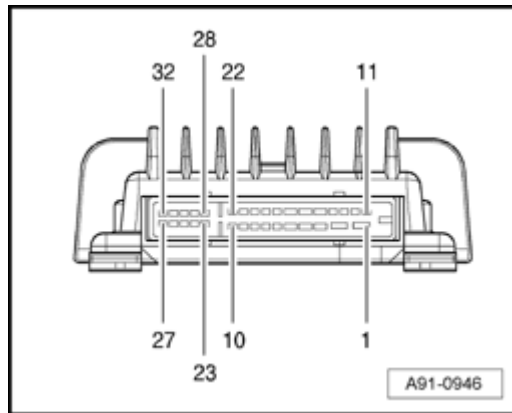
- 1 - Center mid/high range loudspeaker (+)
- 2 - Center mid/high range loudspeaker (-)
- 6 - Line output - Ground (GND) (from Radio)
- 7 - Line output - right rear (from Radio)
- 8 - Line output - left rear (from Radio)
- 9 - Line output - right front (from Radio)
- 10 - Line output - left front (from Radio)
- 11 - Ground (GND) (terminal 31)
- 13 - Battery B+ (terminal 30)
- 14 - Bass loudspeaker (+)
- 15 - Bass loudspeaker (-)
- 16 - Loudspeaker (-) left front
- 17 - Loudspeaker (+) left front
- 18 - Loudspeaker (+) right front
- 19 - Loudspeaker (-) right front
- 20 - Loudspeaker (+) left rear

21 - Loudspeaker (-) left rear

22 - Loudspeaker (+) right rear

23 - Loudspeaker (-) right rear

25 - Switched positive



Multi-pin connector, 32-pin

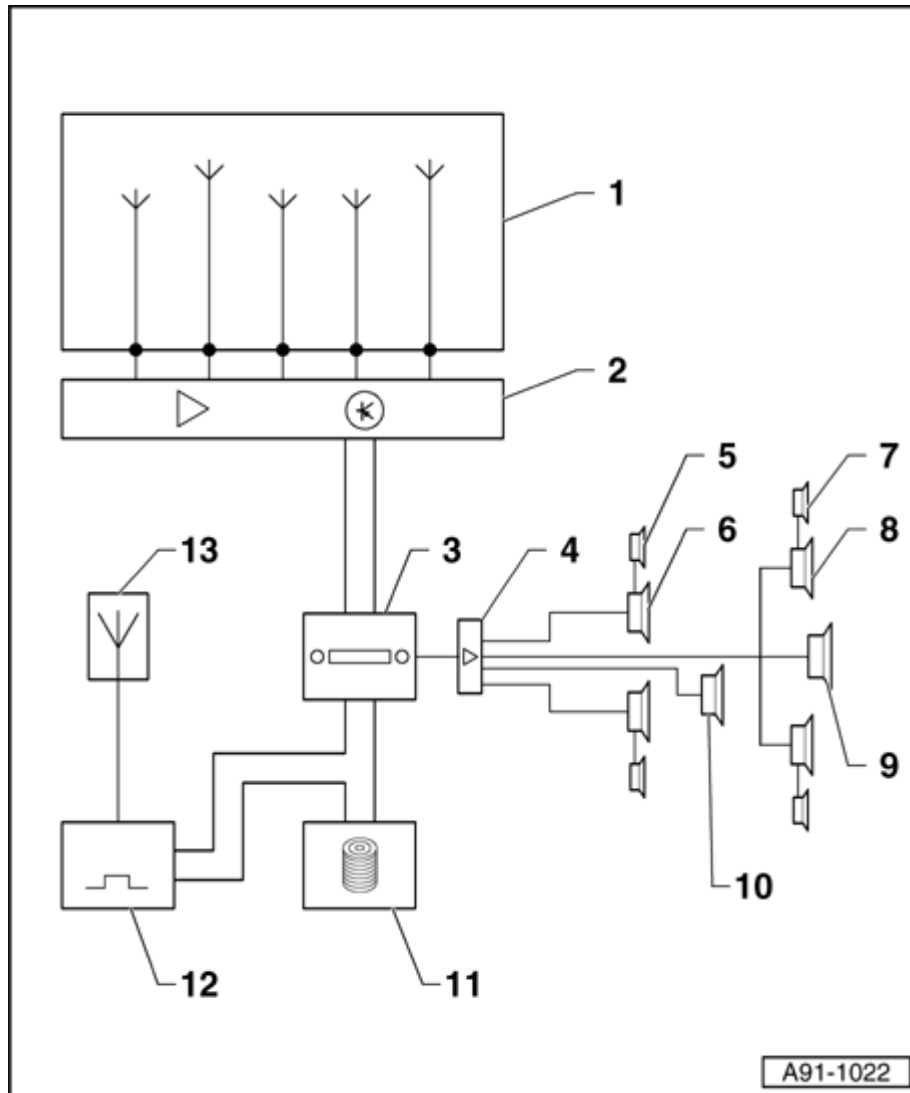
- 1 - Battery B+ (terminal 30)
- 2 - Ground (GND) (terminal 31)
- 3 - Bass loudspeaker (+)
- 4 - Loudspeaker (-) left rear
- 5 - Loudspeaker (+) right rear
- 6 - Switched positive (from Radio)
- 7 - Line output - Ground (GND) (from Radio)
- 13 - Center mid/high range loudspeaker (+)
- 14 - Center mid/high range loudspeaker (-)
- 15 - Bass loudspeaker (-)
- 16 - Loudspeaker (+) left rear
- 17 - Loudspeaker (-) right rear
- 19 - Line output - left front (from Radio)
- 20 - Line output - right front (from Radio)
- 21 - Line output - left rear (from Radio)
- 22 - Line output - right rear (from Radio)
- 26 - Loudspeaker (-) right front
- 27 - Loudspeaker (+) right front

29 - Microphone (+) not connected

30 - Microphone (-) not connected

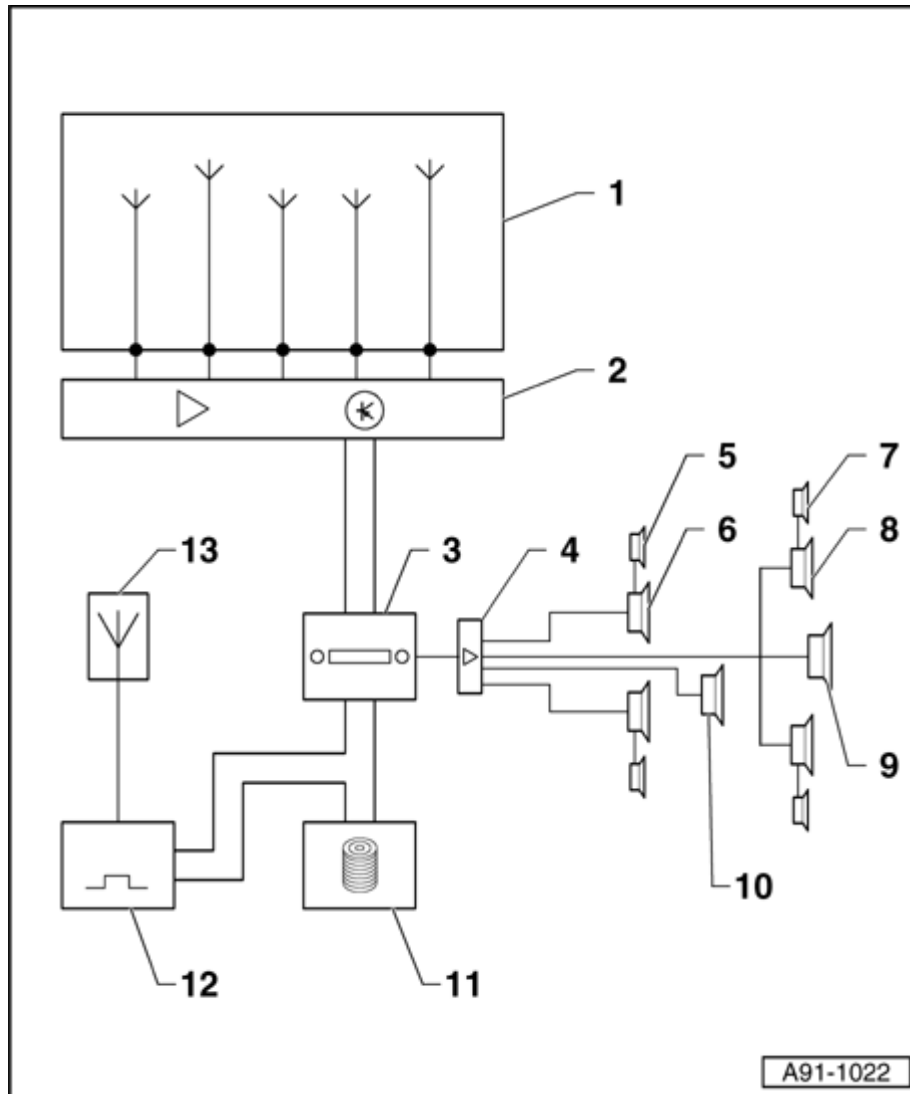
31 - Loudspeaker (+) left front

32 - Loudspeaker (-) left front



Radio system SDARS with BOSE® sound system (Sedan), layout

- 1 - Rear window antennas
- 2 - Antenna Selection Control Module -J515-
 - ◆ Under rear headliner trim
- 3 - Radio
- 4 - BOSE® power amplifier
 - ◆ In right rear luggage compartment behind side trim
- 5 - Front Midrange Speakers
 - ◆ In upper front door trim
- 6 - Front Bass Speakers
 - ◆ In lower front door trim



7 - Rear Midrange Speakers

- ◆ In upper rear door trim

8 - Rear Bass Speakers

- ◆ In lower rear door trim

9 - Bass Loudspeaker

- ◆ Under rear parcel shelf

10 - Center Mid/High Range Loudspeaker

- ◆ In instrument panel

11 - CD Changer Unit

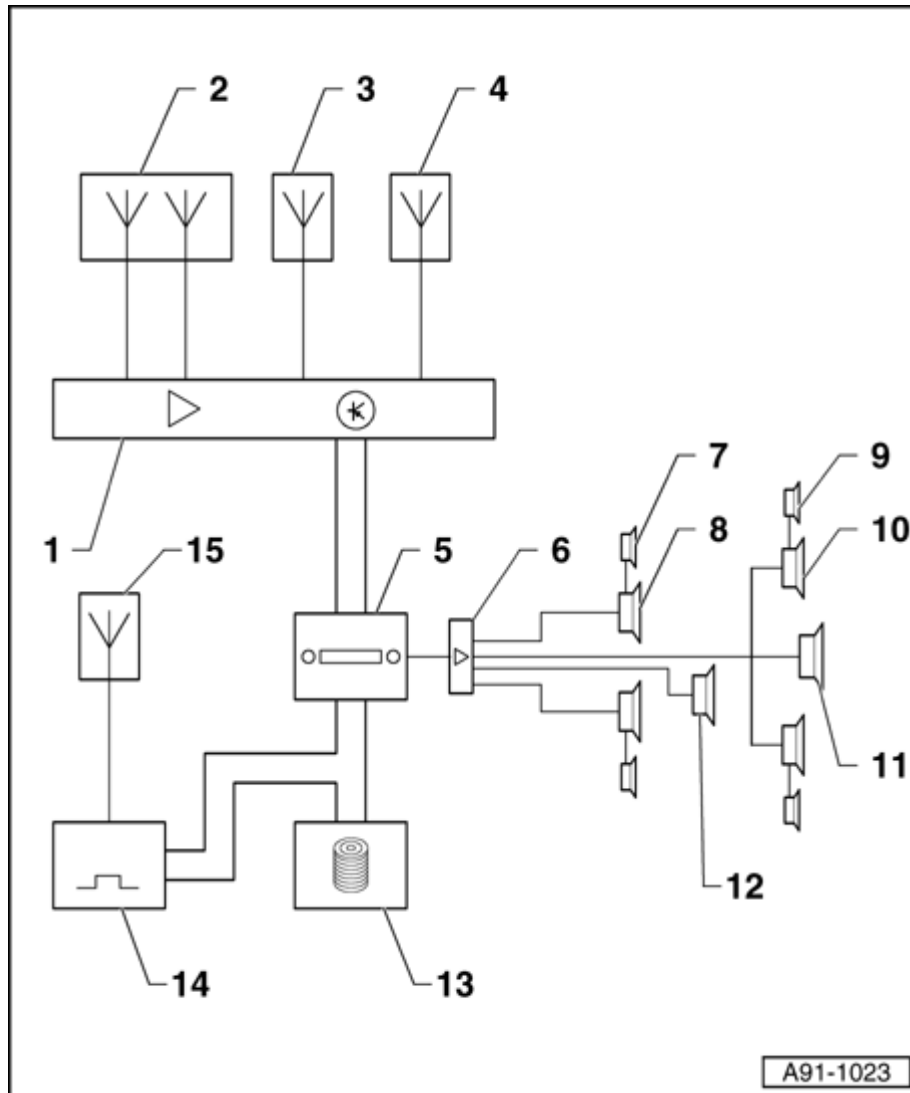
- ◆ In glove compartment

12 - Satellite Radio

- ◆ In left rear luggage compartment

13 - Satellite Tuner Antenna

- ◆ On roof
- ◆ Also for Telematics and Navigation



Radio system SDARS with BOSE® sound system (Avant), layout

1 - Left Antenna Module

- ◆ In left rear luggage compartment behind trim

2 - Left rear window antenna

3 - Rear window antenna

4 - Right rear window antenna

5 - Radio

6 - BOSE power amplifier

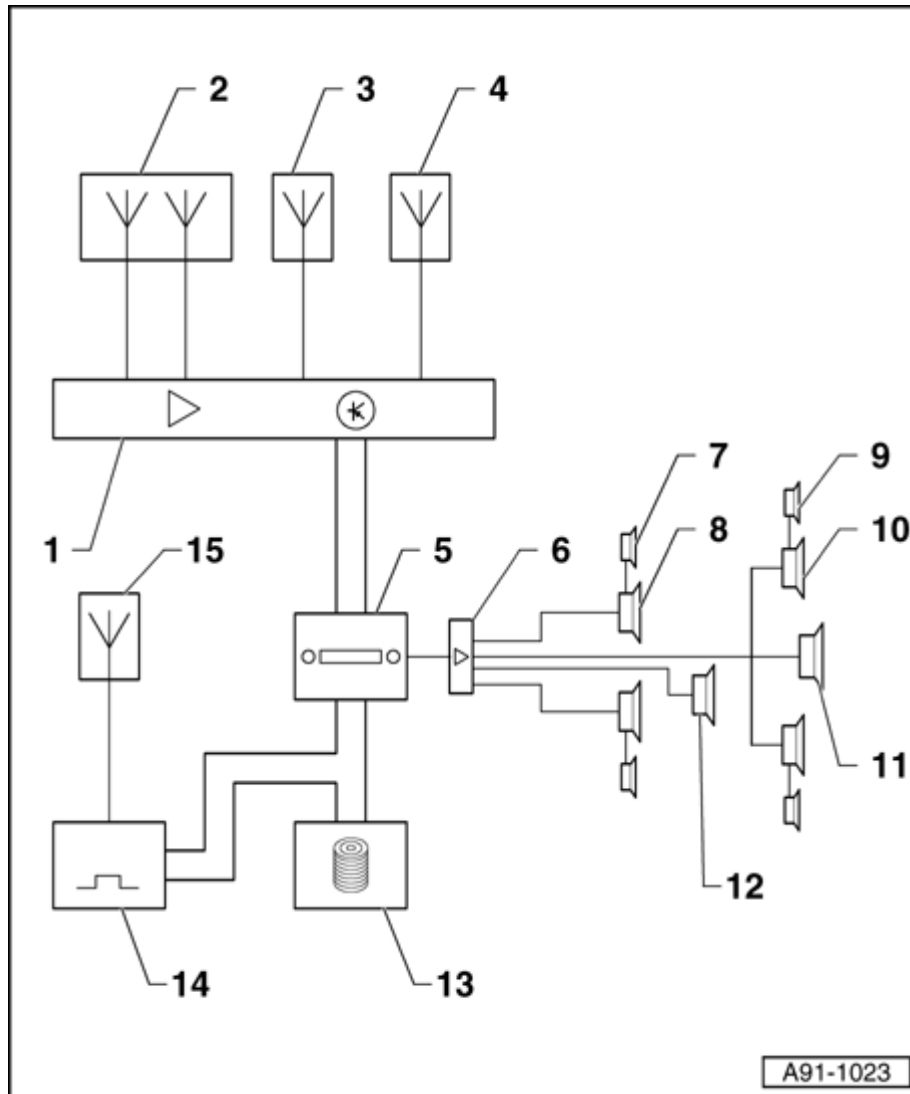
- ◆ In right rear luggage compartment behind trim

7 - Front Midrange Speakers

- ◆ In upper front door trim

8 - Front Bass Speakers

- ◆ In lower front door trim



9 - Rear Midrange Speakers

- ◆ In upper rear door trim

10 - Rear Bass Speakers

- ◆ In lower rear door trim

11 - Bass Loudspeaker

- ◆ Under rear parcel shelf

12 - Center Mid/High Range Loudspeaker

- ◆ In instrument panel

13 - CD Changer Unit

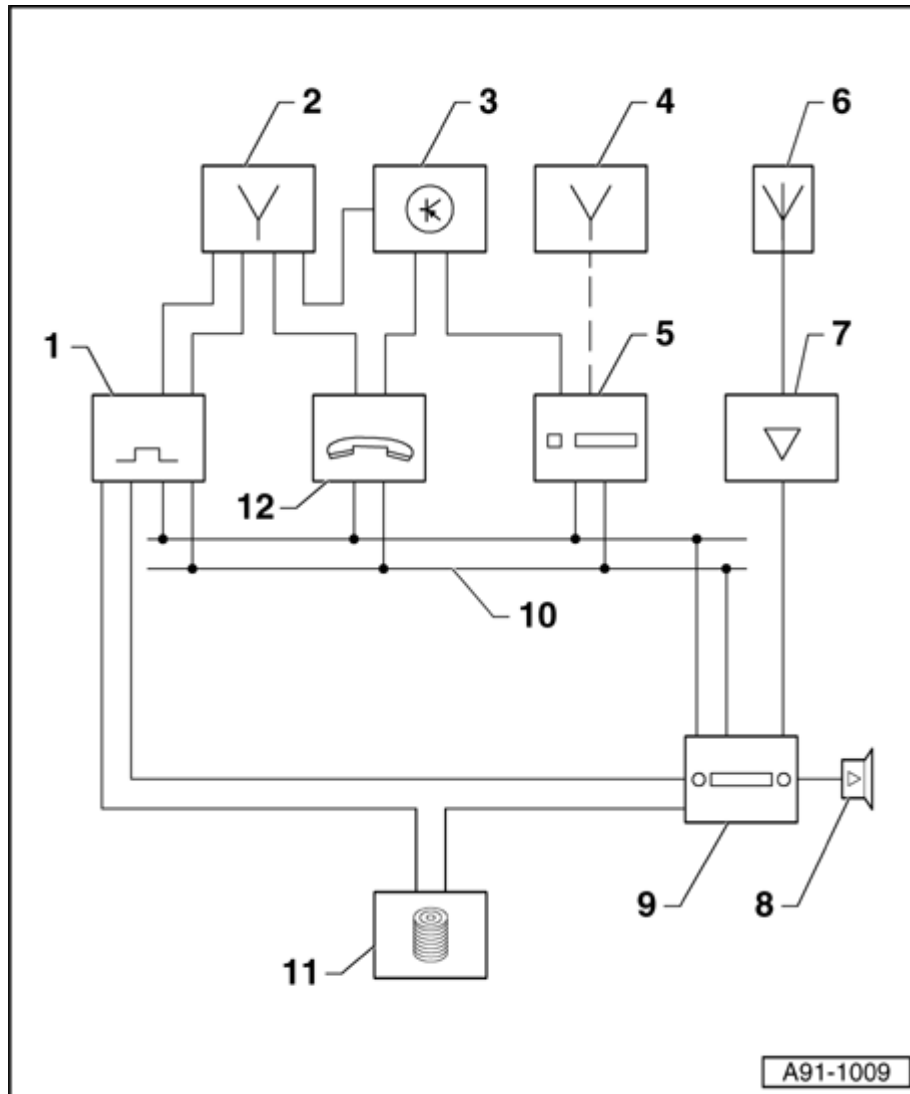
- ◆ In glove compartment

14 - Satellite Radio

- ◆ In left rear luggage compartment

15 - Satellite Tuner Antenna

- ◆ On roof
- ◆ Also for Telematics and Navigation



Communication system with SDARS, layout

1 - Satellite Radio

- ◆ In left rear luggage compartment

2 - Satellite Tuner Antenna

- ◆ on roof

3 - Antenna splitter (GPS)

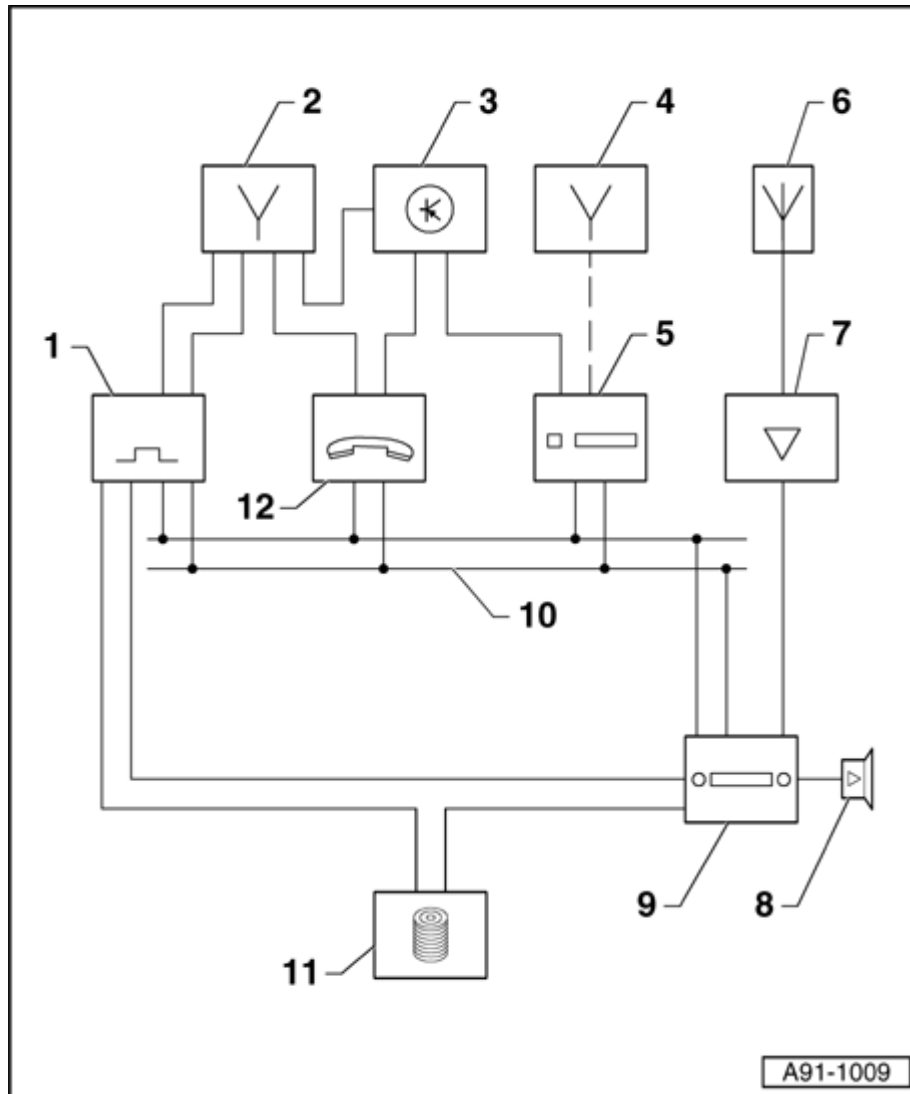
- ◆ Only Avant
- ◆ In left rear luggage compartment behind trim

4 - Antenna for Navigation (GPS)

- ◆ Only sedan
- ◆ Behind roof end trim

5 - Control module for navigation with CD mechanism

- ◆ In left rear luggage compartment behind trim



6 - Radio system antenna

7 - Antenna amplifier

8 - Speakers

9 - Radio

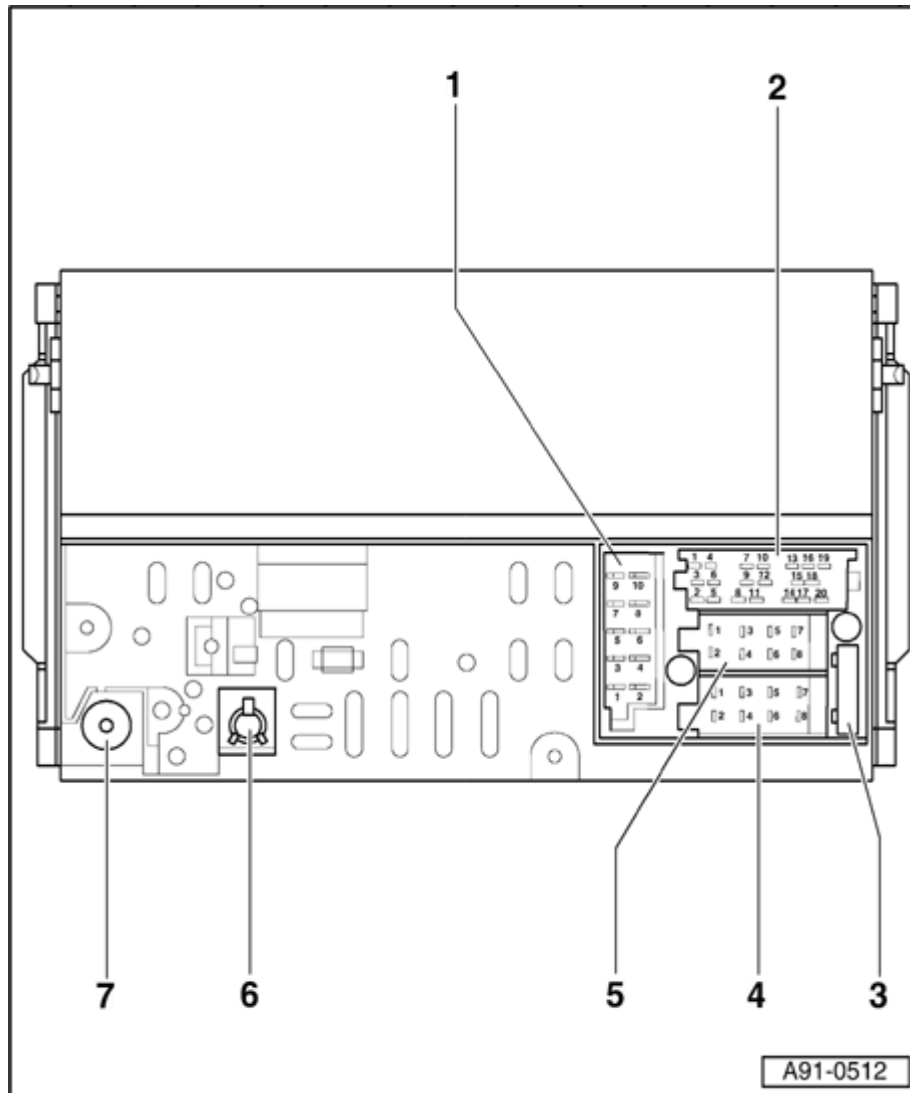
10 - CAN Bus (Infotainment)

11 - CD Changer Unit

◆ In glove compartment

12 - Telephone/Telematics Control Module

◆ Under front passenger seat



Multi-pin connector assignments on "Symphony II" radio

- 1 - Multi-pin connector IV, 10-pin, red
- 2 - Multi-pin connector I, 20-pin - black
- 3 - Radio fuse
- 4 - Multi-pin connector III, 8-pin, black
- 5 - Multi-pin connector II, 8-pin, brown
- 6 - Intermediate frequency wire
- 7 - Antenna connection (high frequency wire)

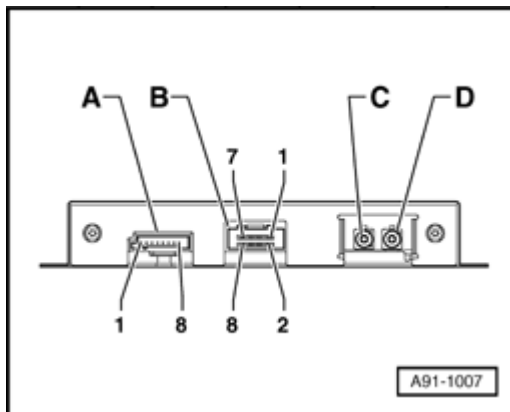
A91-0512



Multi-pin connector assignments on Satellite Radio -R146-

Note:

Terminals which are not listed are vacant/unassigned.



A - Multi-pin connector, 8-pin

- 1 - CAN-Bus High (Infotainment)
- 2 - CAN-Bus Low (Infotainment)
- 3 - CD-IN L (CD Changer Unit)
- 4 - CD-IN R (CD Changer Unit)
- 5 - NF - Ground (GND) (Radio)
- 6 - NF - left (Radio)
- 7 - NF - right (Radio)
- 8 - CD Ground (GND) (CD Changer Unit)

B - Multi-pin connector, 8-pin

- 1 - Terminal 30 (B+)
- 2 - Terminal 31 (GND)

C - Connection - Satellite Tuner Antenna (brown)

D - Connection - Satellite Tuner Antenna (green)



"Concert II" radio unit, removing and installing

Special tools and workshop equipment required

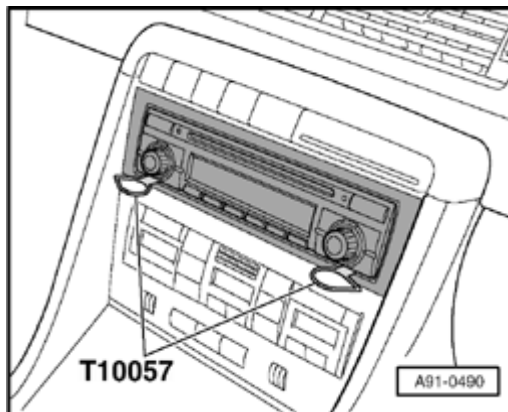
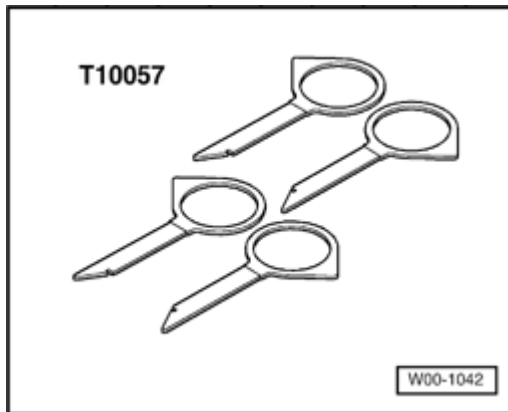


- ◆ Radio release tool T10057

Removing



- Push clips of radio release tool T10057 into front of radio.
 - ◆ Top L - top left
 - ◆ Top R - top right





- Pull radio out from instrument panel.
- Disconnect electrical connections and antenna wire.
- Pull out release tool from the radio - to do this, press in locking tabs on radio.

Installing

- Reconnect electrical connections and antenna wire.
- Carefully insert radio into instrument panel and engage in installation slot.
- Code radio if replacement unit is installed. Use VAS 5051 Vehicle Diagnostic, Testing and Information System in mode "Guided Fault Finding".

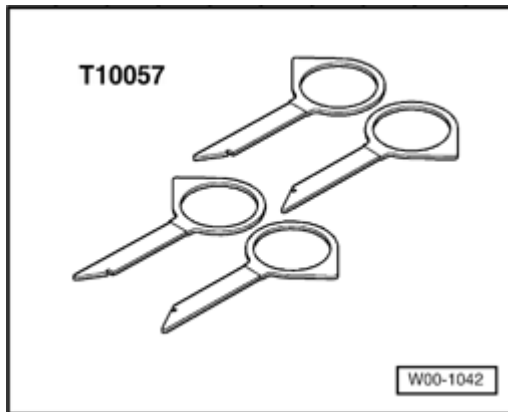


"Symphony II" radio unit, removing and installing

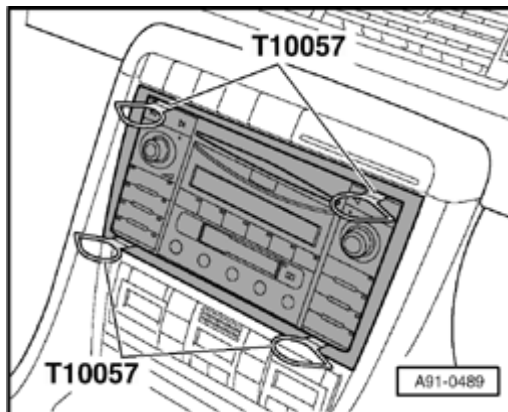
Special tools and workshop equipment required

- ◆ Radio release tool T10057

Removing



A



A

- Push the four clips of radio release tool T10057 into the front.
 - ◆ Top L - top left
 - ◆ Top R - top right



- Pull radio out from instrument panel.
- Disconnect electrical connections and antenna wire.
- Pull out release tool from the radio - to do this, press in the locking tabs at top and bottom on radio.

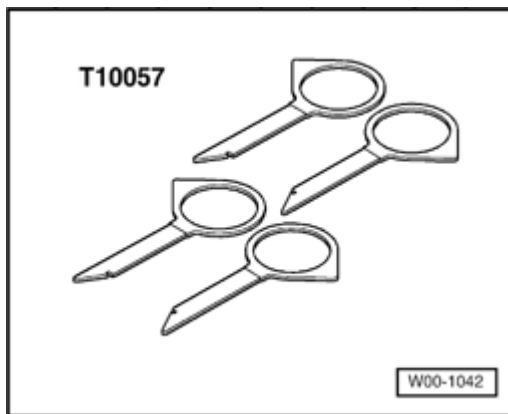
Installing

- Reconnect electrical connections and antenna wire.
- Carefully insert radio into instrument panel and let it engage in installation slot.
- Code radio if replacement unit is installed. Use VAS 5051 Vehicle Diagnostic, Testing and Information System in mode "Guided Fault Finding".



CD Changer Unit -R41-, removing and installing

Special tools and workshop equipment required

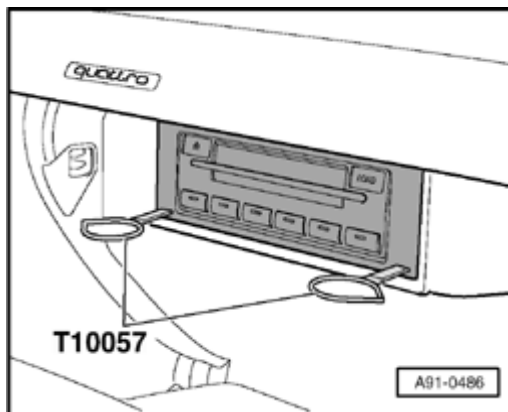


A

- ◆ Radio release tool T10057

Removing

- Open glove compartment.



A

- Push clips of radio release tool T10057 into front of CD changer as illustrated.



- Pull CD changer out of installation slot.
- Disconnect electrical connection.
- Pull out release tool from CD changer - to do this, press in locking tabs on CD changer.

Installing

- Reconnect electrical connection.
- Slide CD changer into installation slot until it engages.
- After installation, it is essential that the wiring is checked ⇒ [Page 91-50](#) .



Checking wiring between radio and CD changer

- Switch off radio.

"Concert II" radio:

- Press CD button on radio and switch radio on at the same time.

"Symphony II" radio:

- Press button "4" on radio and switch radio on at the same time, keeping the ON button pressed in.

All models:

1. Wiring OK

Indicated on radio display:

"CONNECT"



2. Wiring not OK

Indicated on radio display:

"NO CDC"

- Check electrical connections at CD changer.
- Repeat wiring test and, if the wiring is not OK, use wiring diagrams to check wiring.

⇒ *Electrical Wiring Diagrams*

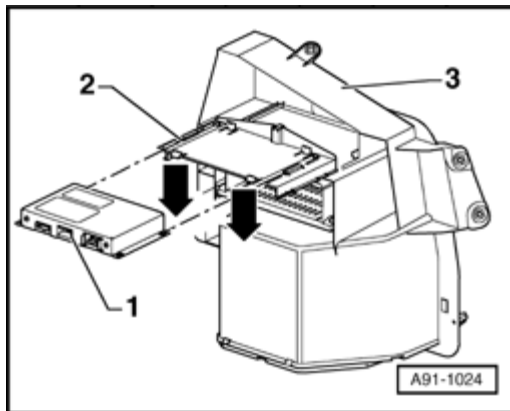


Satellite Radio -R146-, removing and installing (Sedan)

Removing

- Remove sub compartment in luggage compartment, left

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



A Satellite radio -1- slides/locks into adapter plate -2- mounted to rear of sub compartment -3-.

- Disconnect electrical connections at satellite radio.

Adapter plate does not need to be removed.

- Depress both locking catches on adapter plate -2- in direction of - arrows-.
- Slide out and remove satellite radio -1- from adapter plate -2-.

Installing

- Install in reverse order of removal.

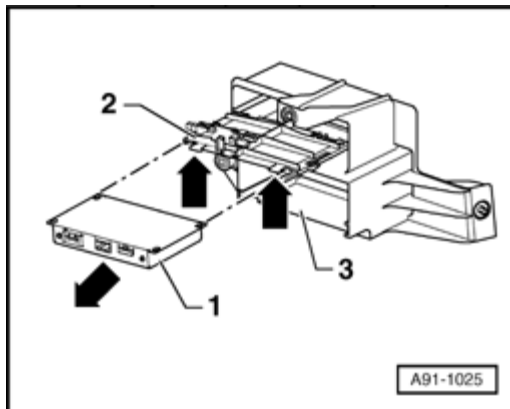


Satellite Radio -R146-, removing and installing (Avant)

Removing

- Remove sub compartment in luggage compartment, left

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



A Satellite radio -1- slides/locks into adapter plate -2- mounted to rear of sub compartment -3-.

- Disconnect electrical connections at satellite radio.

Adapter plate does not need to be removed.

- Depress both locking catches on adapter plate -2- in direction of - arrows-.
- Slide out and remove satellite radio -1- from adapter plate -2-.

Installing

- Install in reverse order of removal.



Loudspeakers in doors, removing and installing

Front Midrange Speakers -R26- & -R27-, removing and installing ⇒ [Page 91-55](#)

Rear Bass Speakers -R15- & -R17-, removing and installing ⇒ [Page 91-57](#)

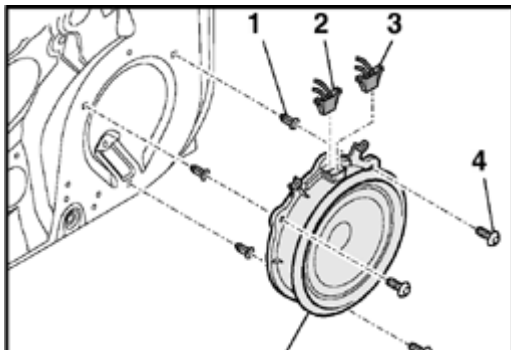
Rear Midrange Speakers -R34 & -R35-, removing and installing ⇒ [Page 91-58](#)

Front Bass Speakers -R21 & -R23-, removing and installing

Removing

- Remove front door trim.

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



A

- Disconnect electrical connections -2- and -3-.
- Remove bolts -4- on loudspeaker -5- and remove loudspeaker.

1 - Expanding nut

Installing

- Install in reverse order of removal.
- Hook retaining lugs on loudspeaker into installation opening.
- Tighten bolts on loudspeaker to 2 Nm.



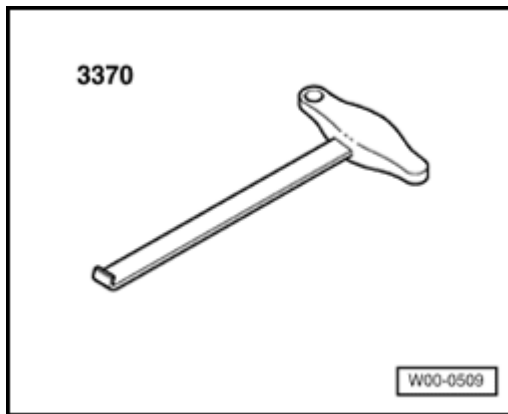
Front Midrange Speakers -R26- & -R27-, removing and installing

Special tools and workshop equipment required

A

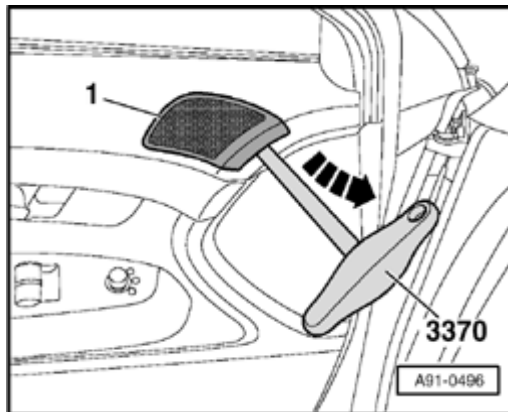
- ◆ Hook 3370 for front end

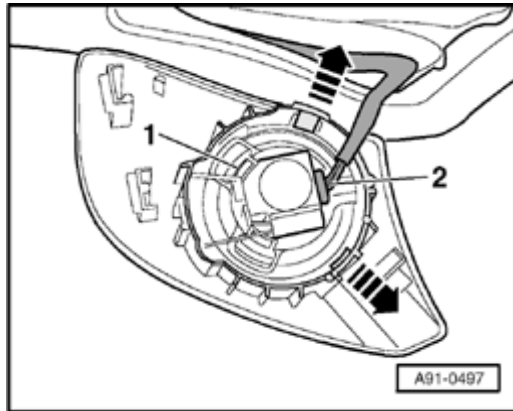
Removing



A

- Pull loudspeaker cover -1- at the top of the door trim upward and off using special tool 3370 (arrow).





A

- Disconnect electrical connection -2-.
- Release clasps -arrows- and remove loudspeaker -1-.

Installing

- Install in reverse order of removal.

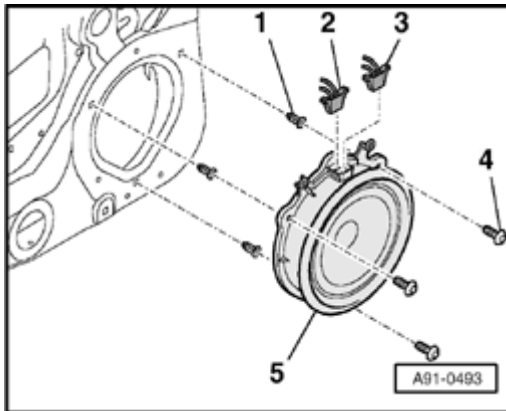


Rear Bass Speakers -R15- & -R17-, removing and installing

Removing

- Remove rear door trim.

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



A

- Disconnect electrical connections -2- and -3-.
- Remove bolts -4- on loudspeaker -5- and remove loudspeaker.
- 1 - Expanding nut

Installing

- Install in reverse order of removal.
- Hook the retaining lugs on loudspeaker into the installation opening.
- Tighten bolts on loudspeaker to 2 Nm.

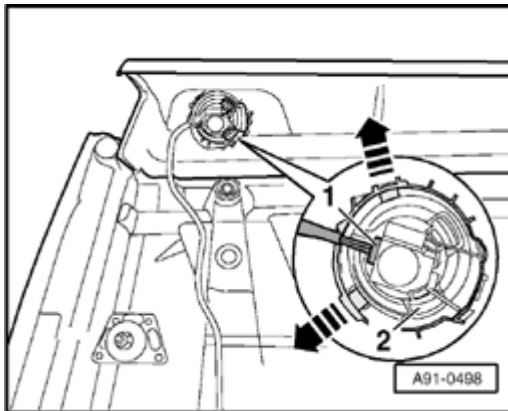


Rear Midrange Speakers -R34 & -R35-, removing and installing

Removing

- Remove rear door trim.

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



A

- Disconnect electrical connection -1-.
- Release clasps -arrows- and remove loudspeaker -2-.

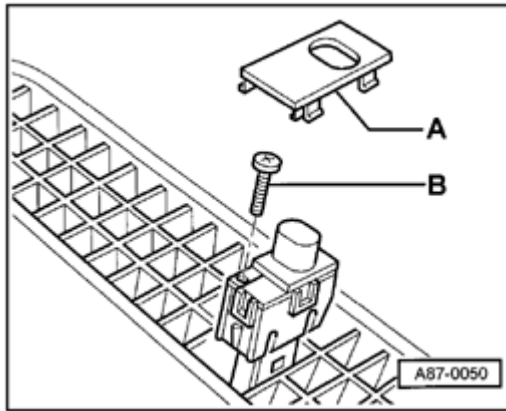
Installing

- Install in reverse order of removal.

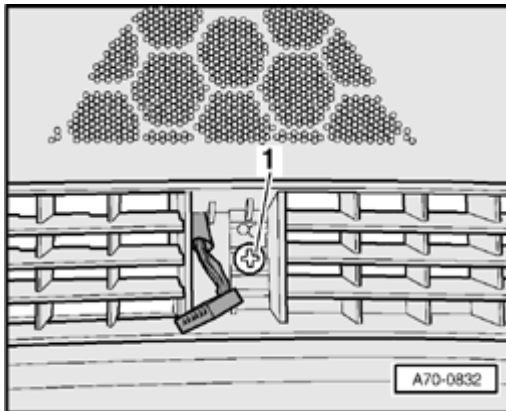


Center Mid/High Range Loudspeaker - R158-, removing

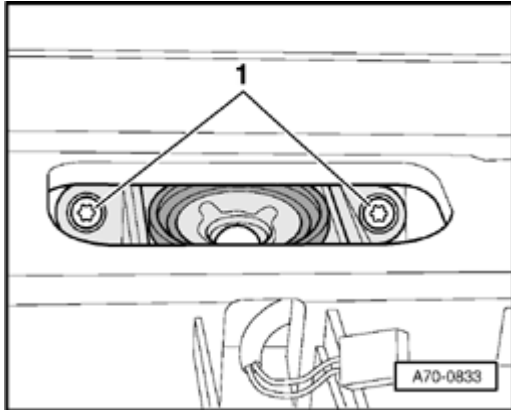
Removing



- A - Carefully pry off the cover -A- for sunlight photo sensor.
- Remove screw -B-.
- Disconnect electrical connection.



- A - Remove screw -1-.
- Detach defroster vent.



A

- Remove bolts -1-.
- Swivel out loudspeaker and disconnect electrical connection.

Installing

- Install in reverse order of removal.
- Tighten bolts on loudspeaker to 2 Nm.
- Tighten bolts for the defroster vent and photosensor to 0.8 Nm.

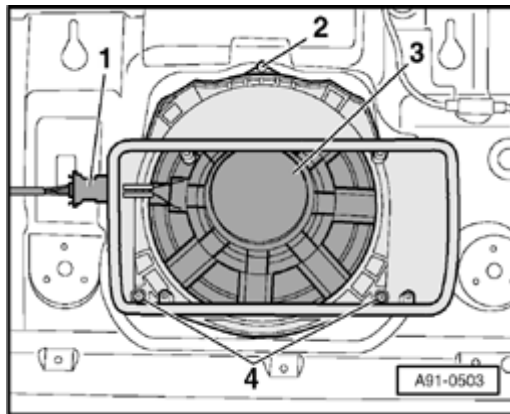


Bass Loudspeaker -R100- (Sedan), removing and installing

Removing

- Remove rear shelf.

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



A

- Working from the rear shelf, unscrew and remove two bolts -4-.
- Working from the luggage compartment, unscrew and remove single bolt -2-.
- Disconnect electrical connection -1- and lift out loudspeaker -3-.

Installing

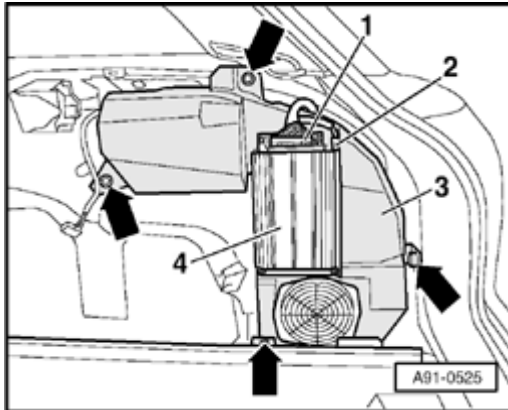
- Install in reverse order of removal.
- Tighten bolts on loudspeaker to 2 Nm.



Bass Loudspeaker -R100- (Avant), removing and installing

Removing

- Open cover in side trim on right rear side of luggage compartment.



A

- Disconnect electrical connections -1- and -2-.
- Unscrew bolts -arrows-.
- Remove bass loudspeaker -3- together with amplifier -4-.

Installing

- Install in reverse order of removal.
- Tighten bolts on loudspeaker to 2 Nm.

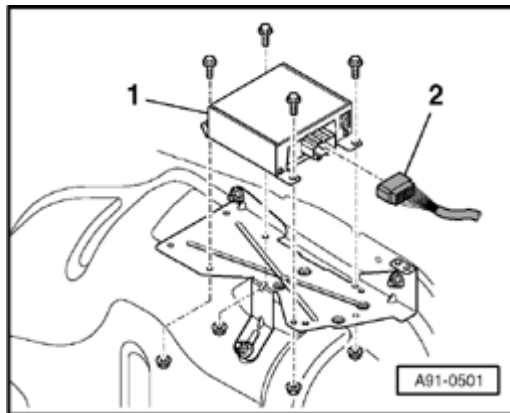


Amplifier -R12- for rear loudspeakers (Sedan), removing and installing

Removing

- Remove right luggage compartment trim.

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



A

- Disconnect electrical connection -2-.
- Unscrew connections and remove amplifier -1-.

Installing

- Install in reverse order of removal.
- Tighten connections on amplifier to 3.5 Nm.



Amplifier -R12- for rear loudspeakers (Avant), removing and installing

Removing

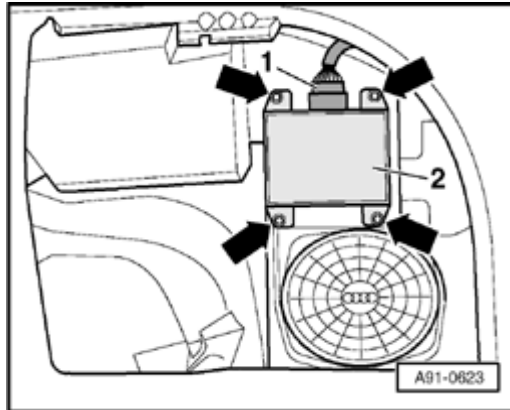
- Open cover in side trim on right rear side of luggage compartment.

A

- Disconnect electrical connection -1-.
- Unscrew connections -arrows- and remove amplifier -2-.

Installing

- Install in reverse order of removal.



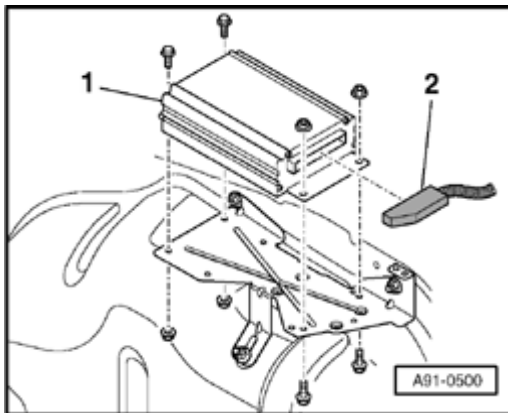


Amplifier -R12- BOSE® power amplifier (Sedan), removing and installing

Removing

- Remove right luggage compartment trim.

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



A

- Disconnect electrical connection -2-.
- Unscrew connections and remove amplifier -1-.

Installing

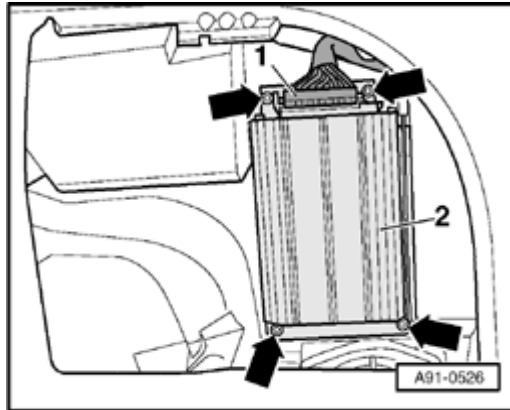
- Install in reverse order of removal.
- Tighten screwed connections on amplifier to 3.5 Nm.



Amplifier -R12- BOSE® power amplifier (Avant), removing and installing

Removing

- Open cover in side trim on right side of luggage compartment.
- Disconnect electrical connection -1-.
- Unscrew bolts -arrows- and remove amplifier -2-.



Installing

- Install in reverse order of removal.

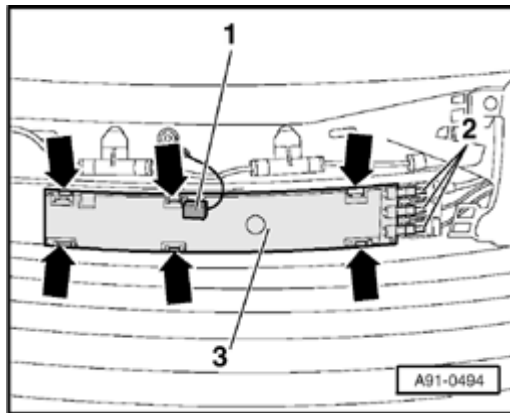


Antenna Selection Control Module - J515- (Sedan), removing and installing

Removing

- Remove rear headliner trim.

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



A

- Disconnect Ground (GND) lead -1-.
- Release clasps -arrows- and remove control module -3-.

Note:

Illustration shows antenna selection control module on vehicle without radio remote control for auxiliary heater.

- Disconnect electrical connections -2-.

Installing

- Install in reverse order of removal.
- Reconnect the electrical connections according to the color-coding on the control module for antenna selection.



Left Antenna Module -R108- (Avant), removing and installing

- Remove side trim on left-hand luggage compartment storage.

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

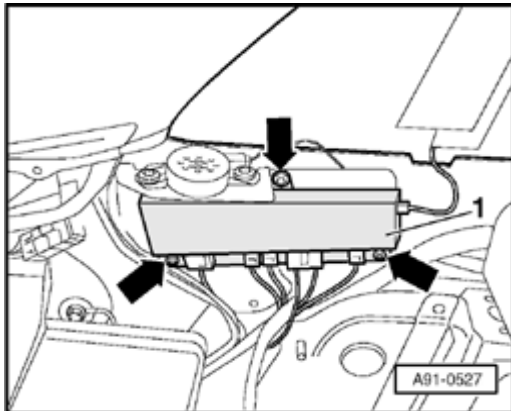
- Disconnect electrical connections.

A

- Remove bolts -arrows- and remove control module -1-.

Installing

- Install in reverse order of removal.
- Tighten connections on control module to 2 Nm.





Satellite Tuner Antenna -R172- (Sedan), removing and installing

Removing

- Remove rear headliner trim

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

- Remove left and right D-pillar trim

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

- Remove rear interior lamps

⇒ [*Repair Manual, Electrical Equipment, Repair Group 96*](#)

- Partially pull down rear headliner enough to access connections.
- Disconnect electrical connections at D-pillars.
- Loosen antenna cables up to antenna.





- Remove nut -arrow- (7 Nm).
- Remove antenna upwards from roof.

Installing

- Install in reverse order of removal.



Satellite Tuner Antenna -R172- (Avant), removing and installing

Cables for roof antennas are routed differently. GPS antenna and Satellite tuner antenna cables are routed to modules located on sub compartment in left rear luggage compartment. The Telematic antenna is connected at the right D-pillar.

Removing

- Remove rear headliner trim

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

- Remove left and right D-pillar trim

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

- Remove luggage compartment lights

⇒ [Repair Manual, Electrical Equipment, Repair Group 96](#)

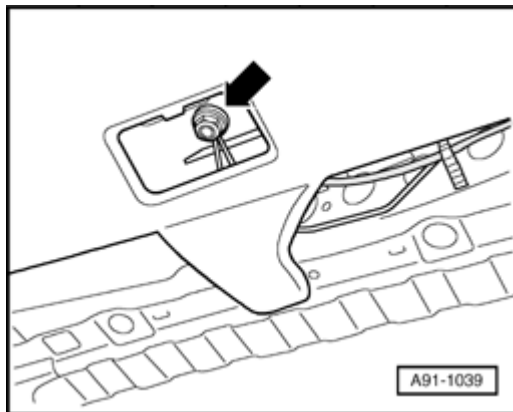
- Remove left luggage compartment trim

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

91-71



- Partially pull down rear headliner enough to access connections.
- Disconnect antenna cable connections at right D-pillar and at modules on sub compartment.
- Loosen antenna cables up to antenna.



- Remove nut -arrow- (7 Nm).
- Remove antenna upwards from roof.

Installing

- Install in reverse order of removal.