

Stereo Upgrade Instructions

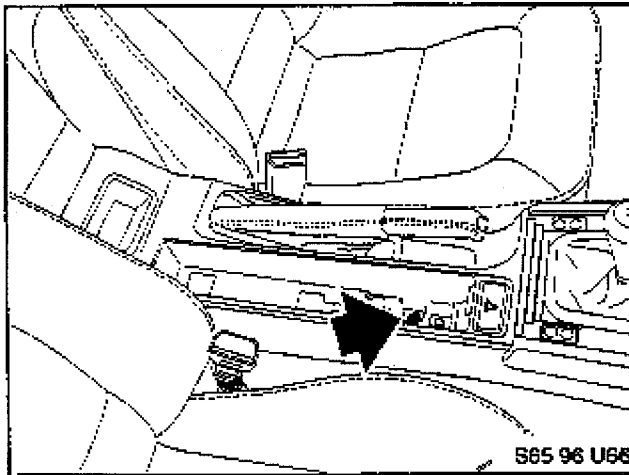
(Z3s produced after 5/96)

Note: These instructions are for Z3s produced after May 1996. If you own a Z3 produced before or during May 1996, please [click here](#) for the correct installation instructions.

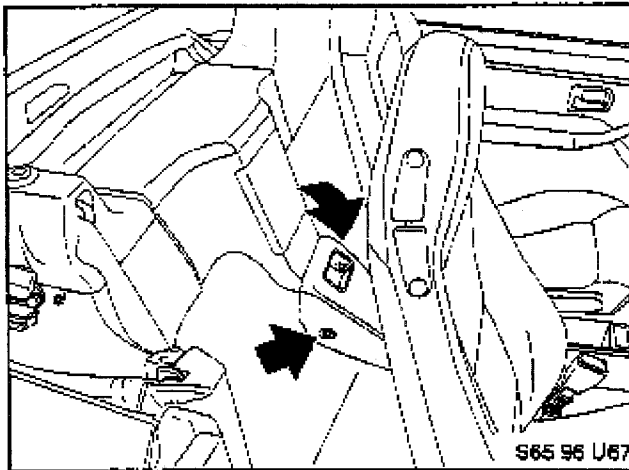
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1. Removal of the Rear Storage Compartment and Cover

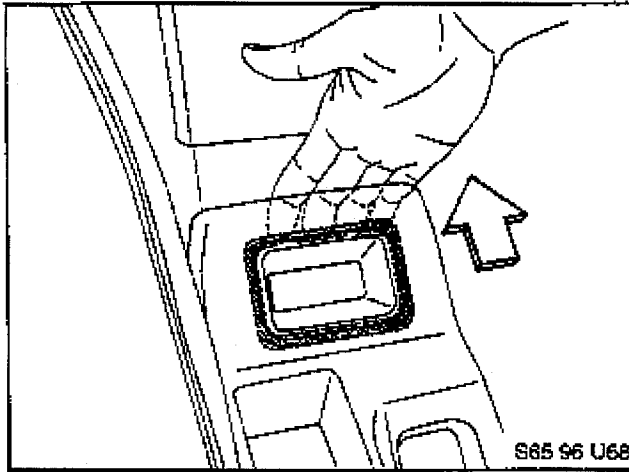
Place the top in the down position.



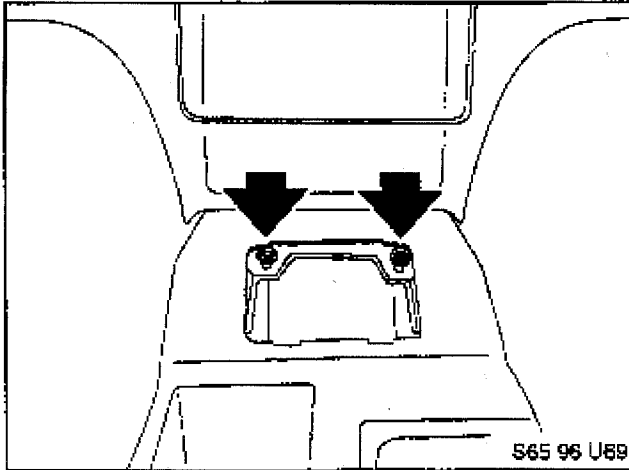
Remove the 4.8 x 24mm self-tapping screw from the center console. Remove the cupholder or cassette storage bin from the center console.



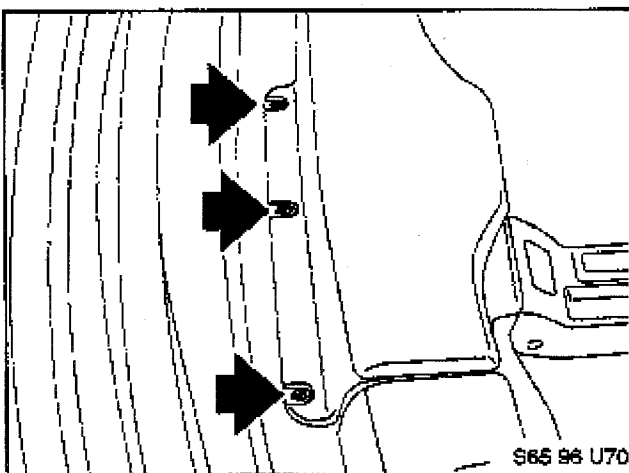
Remove the LH and RH rear center console 4.2 x 12mm self-tapping screws (see arrows).



Pull up on rear area of center console. Grasp storage bin retainer piece (from behind center console) and pull up retainer piece to release it from the storage bin.

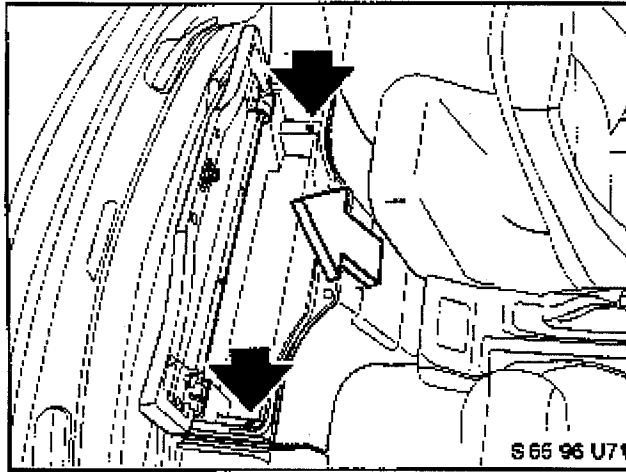


Remove the two 4.2 x 14mm self-tapping screws that secure the forward part of the rear storage compartment.



Remove the three 4.8 x 16mm self-tapping screws with large flat washers from the bottom rear edge of the rear storage compartment. (Some vehicles may have plastic caps over these screws which must be removed to gain access.)

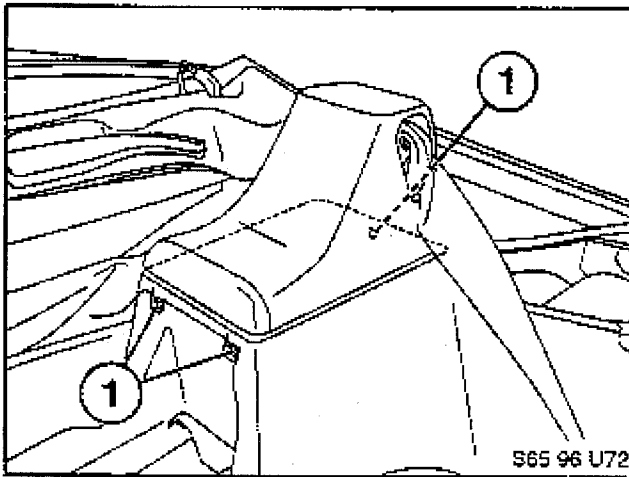
Note: These plastic trim covers are position specific, *i.e.* there are LH, Center, and RH trim cover pieces.



Open the storage compartment cover and remove the two 4.8 x 26mm self-tapping screws from the LH and RH inner storage bin area. Pull up on the rear storage compartment and carefully remove it from the vehicle.

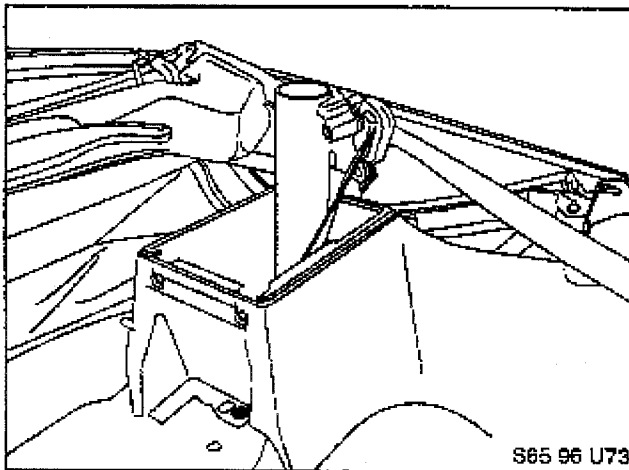
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2. Installing the Pair of Rear Mid Range Speakers



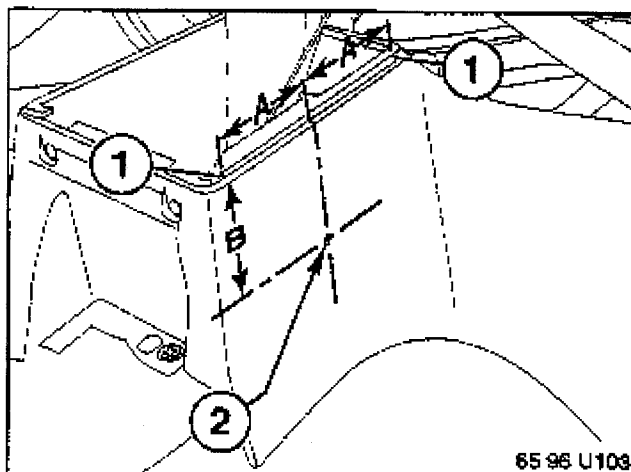
Remove the caps and the three (see item 1) 4.2 x 14mm self-tapping screws from the LH upper rear trim panel.

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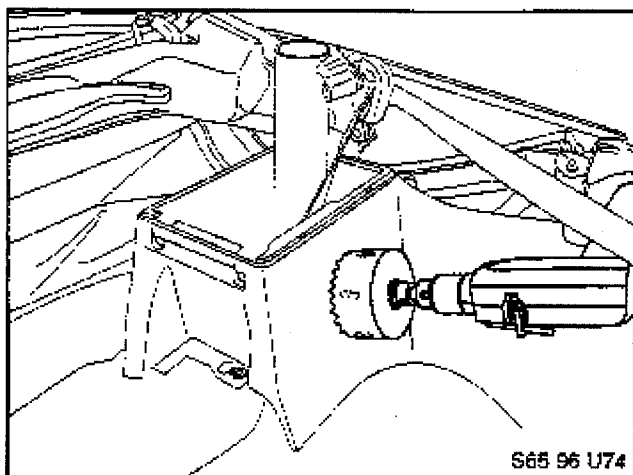


Remove the LH upper rear trim panel to gain access into the LH lower rear trim. Following the same procedure, remove the RH upper rear trim panel to gain access into the RH lower rear trim panel area.

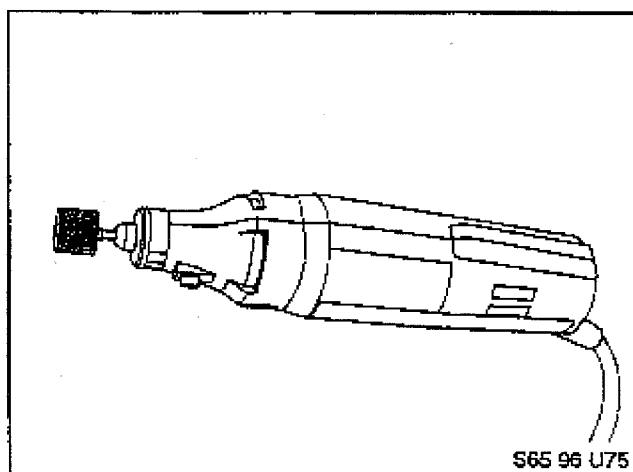
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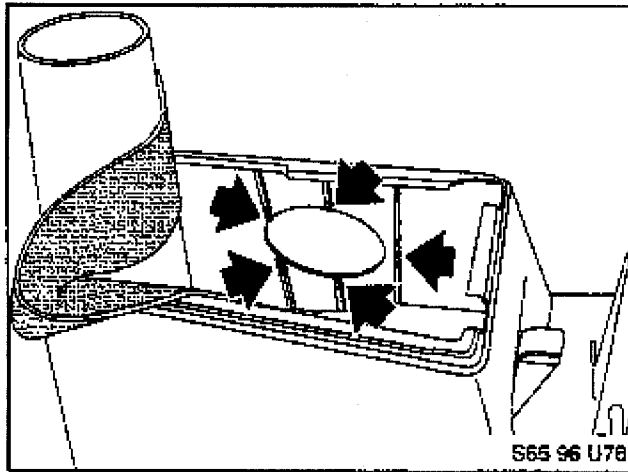
Determine the mid point between points 1 and draw a vertical line. Starting at the bottom step edge (upper arrow of B) measure 2.25" down (bottom arrow of B) the vertical line and mark this location with a center punch (point 2). Drill a 7/32" pilot hole at this location.



Using a 3" diameter hole saw, cut the hole as indicated in the LH and RH lower rear trim panels.

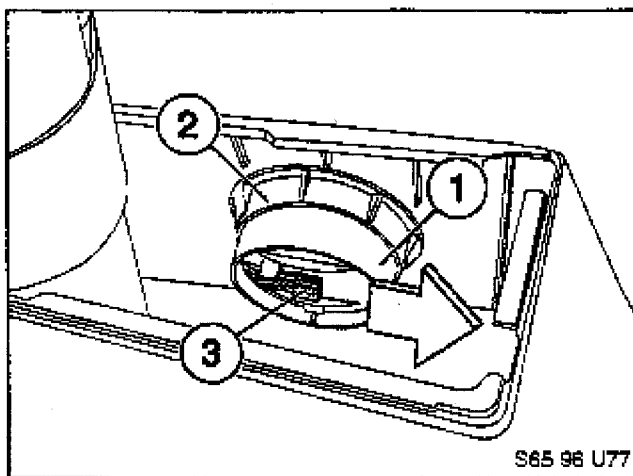


Using a Dremel (registered trademark) Moto-Tool (or equivalent high-speed hand drill) fitted with a drum sander bit and a coarse 60 grit band, remove the plastic reinforcing ribs within a 3/8" wide circular area around the 3" diameter speaker holes on the inside of the speaker box.



Removal of the inner plastic reinforcing ribs is necessary so that the speakers can be mounted flush with the panel.

Using a vacuum cleaner remove all debris that was created by the drilling and grinding of the mid range speaker holes.



Install a speaker (item 1) in the LH lower rear trim panel with the speaker connector (item 3) facing the center of the vehicle and secure in place with a loudspeaker threaded ring (item 2).

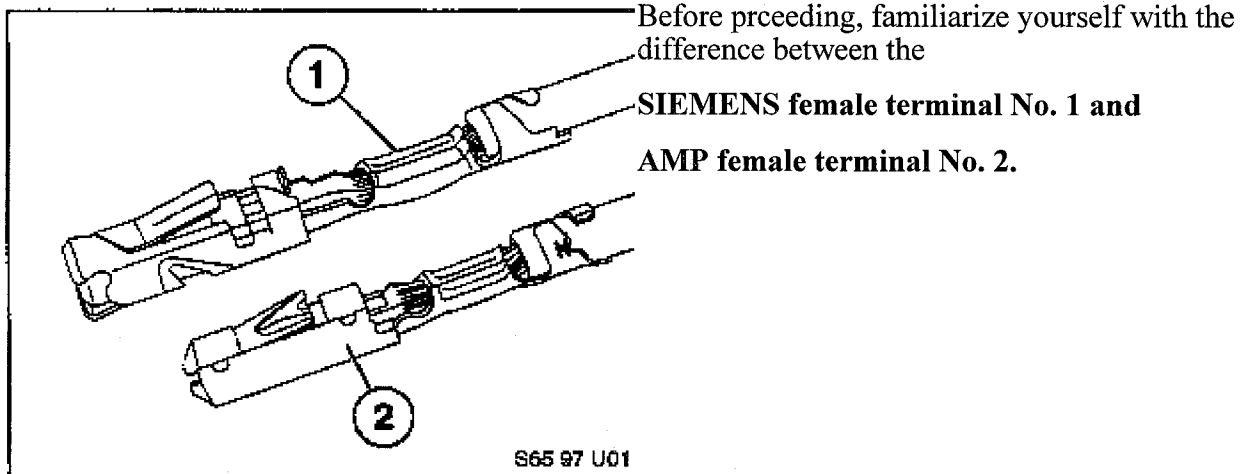
Do the same on the RH side.

3. Preparing the Rear Mid Range Speaker Wire Harness

Using locally sourced red, black, yellow, and green 20 AWG (0.5mm-squared) insulated stranded copper wire, cut the following lengths:

- 1 ea. 12.0 feet (3.65m) red
- 1 ea. 12.0 feet (3.65m) black
- 1 ea. 9.5 feet (2.9m) yellow
- 1 ea. 9.5 feet (2.9m) green

Twist the red with the black and the yellow with the green wire (at minimum one time per inch).



Starting with one end of the red and black wire pair, strip 3/16" of wire insulation off both wires and **double crimp** (wire crimp and insulation crimp) an AMP female terminal on each wire. Leave the other end of the length of red and black pair of wires as is (cut evenly).

Do the same with the yellow and green wire pair.

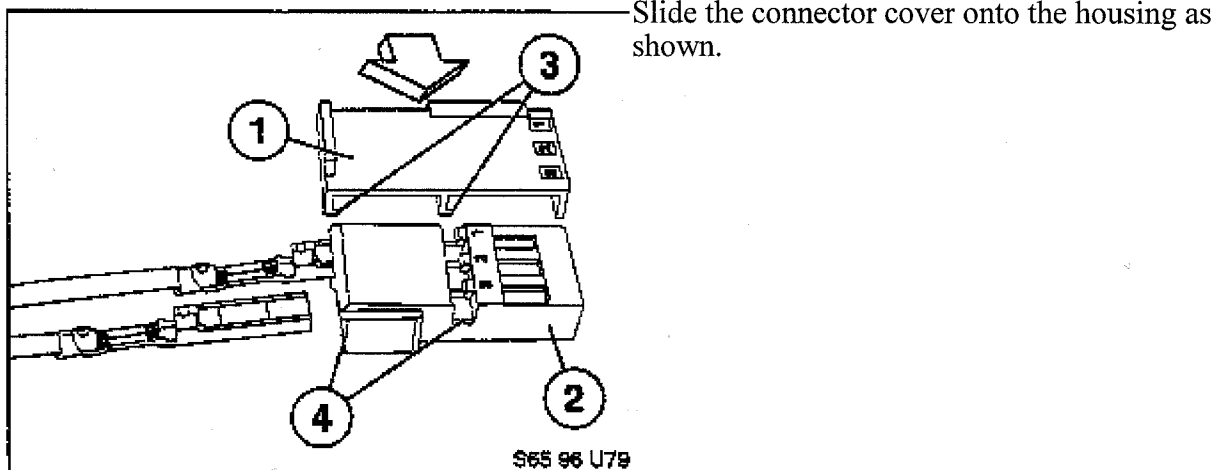
Assemble the LH (yellow & green) and RH (red & black) wire pairs to the 3 pin AMP connector housings as follows:

Black AMP Connector Housing Position LH Wire Color Pair RH Wire Color Pair

1	Green	Black
2	Yellow	Red
3	open	open

Make sure the female terminal is positioned in the connector housing so that the locking tab is facing outward enabling it to lock in the rectangular shaped opening.

Note: If needed, you may remove the AMP female terminal from the black AMP connector housing by pushing down on the female terminal locking tab (with a small blunt object like the open end of a paper clip) while at the same time pulling out the wire.



Strip 3/16" of wire insulation from the other end of the red and black wires and **double crimp** (wire crimp and insulation crimp) a **SIEMENS** female terminal onto each stripped wire end.

Do the same with the yellow and green pair of wire.

4. Routing the Rear Mid Range Speaker(s)

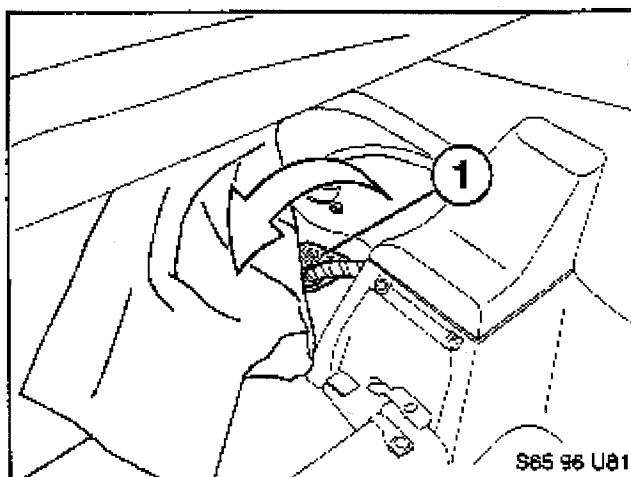
Wire Harness

Open the trunk. Unfasten the LH rear tail light bulb carrier, disconnect its electrical connector, and remove the LH rear tail light bulb carrier assembly from the trunk area.

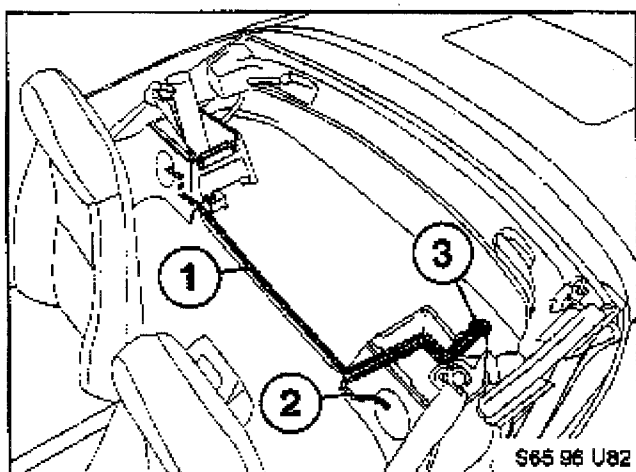
Before proceeding, remove fuse #33 from the main distribution box. Remove the trunk light assembly by prying it out from the trunk partition trim panel.

Remove the trunk floor mat. Remove the LH trunk trim panel (remove the two trim retainer plugs).

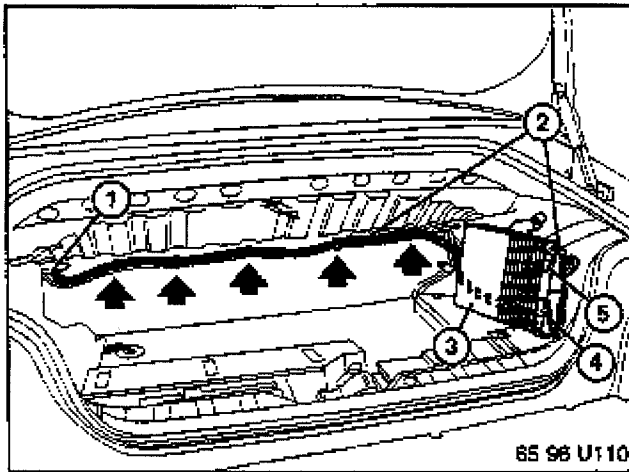
Remove the seven trunk trim retainer plugs, the forward trunk trim panel to expose the audio wire harness, and the amplifier mounted on the right hand side.



Temporarily move back the lining material located behind the LH roll bar tube and locate the grommet (item 1). From the passenger compartment side attach the 4 Siemens terminal ends to a snake wire and push approx. 12" of harness through the grommet into the trunk. Use only the left side grommet to route the harness. On the right side, the wire would interfere with the battery cable.



Route the RH speaker wire pair (item 1, red and black wires) and LH speaker wire pair (item 2, yellow and green wires) and connect them to the mid range speakers. **VERY IMPORTANT. Make sure the wire harness does not interfere with the seat belt reel. Use cable ties to secure the speaker harness.** Pull all excess speaker wire harness through the grommet (see item 3) into the LH forward corner trunk area.



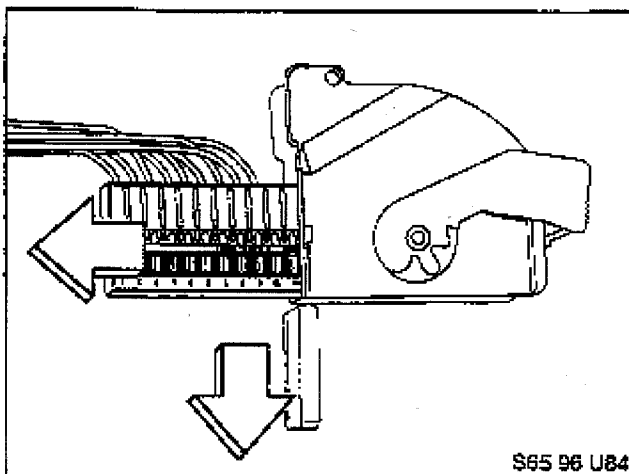
Route the speaker harness from the grommet (item 1) parallel to the existing harness (item 2) so that the female terminal ends are positioned by the 26-pin Siemens connector (item 5). Secure the speaker harness along the existing harness with cable ties (see arrows) as shown.

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Disconnect the two cable connectors (item 4, item 5) from the amplifier (item 3).

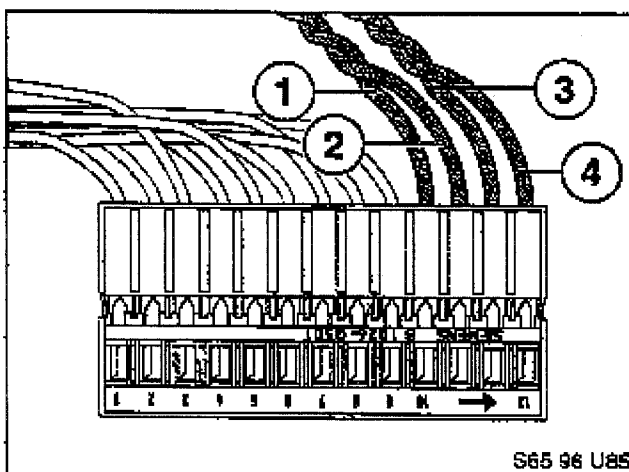
Remove the two M 6 hex nuts to remove the audio amplifier/bracket assembly from the trunk.

5. Modification of the Audio Amplifier Connector



Locate the 26 pin SIEMENS connector and remove the lid. Hold the connector cover with one hand while slightly pulling the wires out of the cover with the other hand to remove the female housing.

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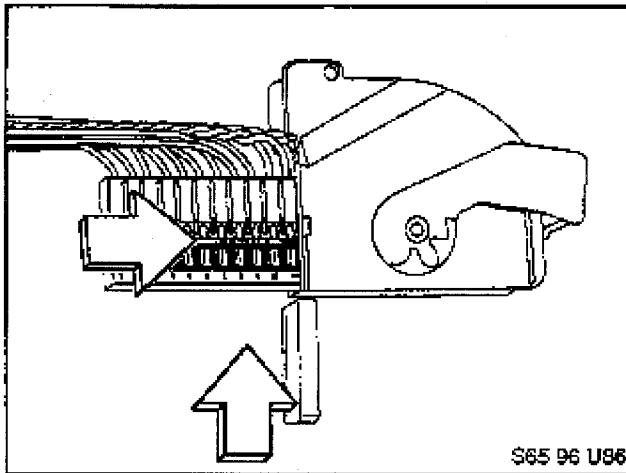


Modify the 26 pin SIEMENS connector as follows: position the desired wire color SIEMENS female terminal as indicated and push it into the SIEMENS connector housing. **Make sure the female terminal is positioned in the connector housing so that the locking tab is facing outward enabling it to lock in the rectangular shaped opening.**

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SIEMENS Connector SIEMENS female terminal

Housing Position	Wire Terminal Ends	Item
10	Yellow (LH +)	1
11	Green (LH -)	2
12	Red (RH +)	3
13	Black (RH -)	4



Note: If needed, you may remove the SIEMENS female terminal from the SIEMENS connector housing by pushing down on the female terminal locking tab (with a small blunt object like the open end of a paper clip) while at the same time pulling out the wire.

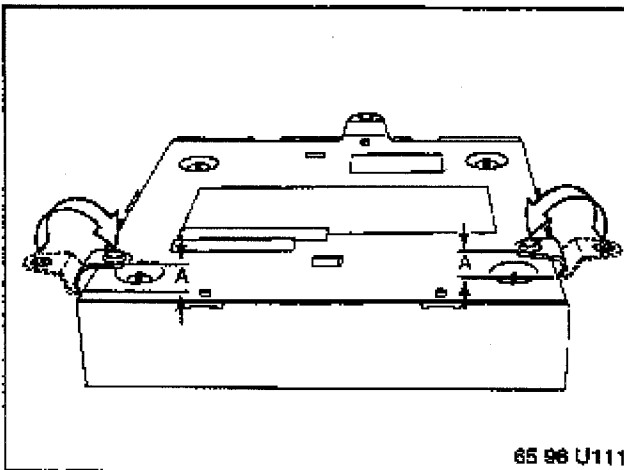
Position the female housing into the connector cover and secure in place with the lid.

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Secure the two speaker wire sets to the other wires of the 26 pin SIEMENS connector with cable ties. Any excess length of the two speaker wire sets should be positioned behind the trunk partition trim panel.

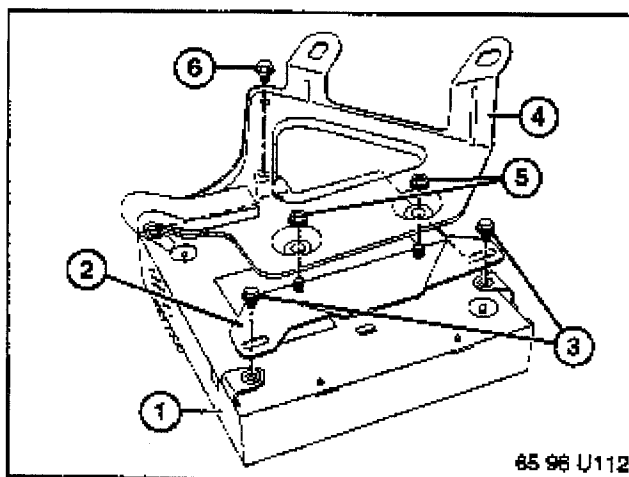
6. Replacing the Audio Amplifier

Remove the original audio amplifier from the mounting bracket by removing the one M6 hex head bolt and the two M6 hex nuts that secure the audio amplifier to the mounting bracket.



Using a pair of needle nose pliers reposition the two side mounting tabs on the replacement audio amplifier so that dimension "A" is 5/16" in height above the audio amplifier bottom surface. Do not bend the mounting tab located by the connector's side of the audio amplifier. This mounting tab remains in original position.

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Install the audio amplifier transition bracket (item 2) to the original audio amplifier bracket (item 4) using the two M6 locking hex nuts provided in the kit.

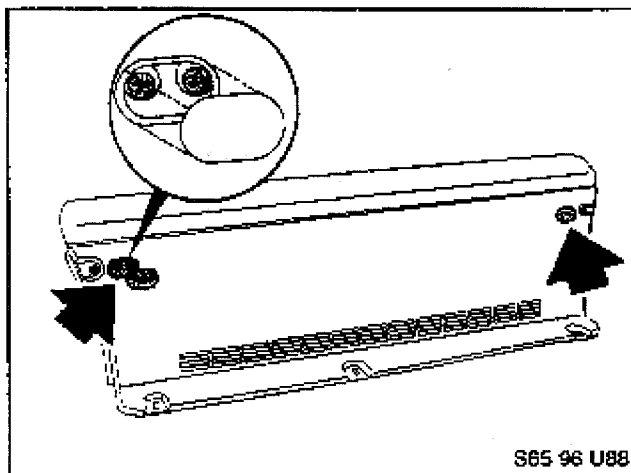
Mount the previously assembled brackets to the replacement audio amplifier (item 1) with the original M6 hex bolt (item 6) and the hardware (items 3 and 5) provided in the kit.

Adapt the two connectors to the audio amplifier.

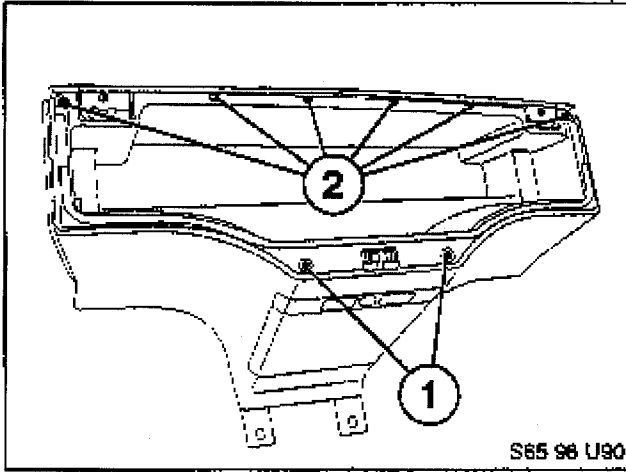
Mount the replacement audio amplifier/modified bracket assembly to the RH rear wheel well area using the two previously removed M6 hex nuts with captive flat washers. Make sure the radio wire harness is properly positioned behind the audio amplifier/modified bracket assembly.

Reinstall all previously removed or displaced trunk items.

7. Converting Rear Storage Compartment into Subwoofer Compartment

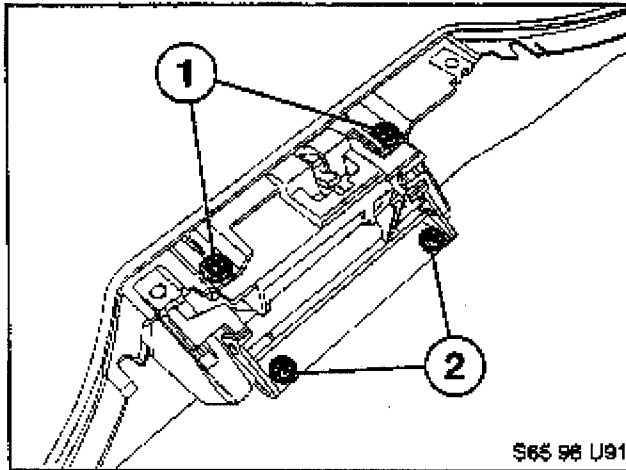


Remove the pair of oval shaped covers from the upper rear corners of the rear storage compartment as shown. Remove the machine thread screws and remove the top cover from the rear storage compartment.



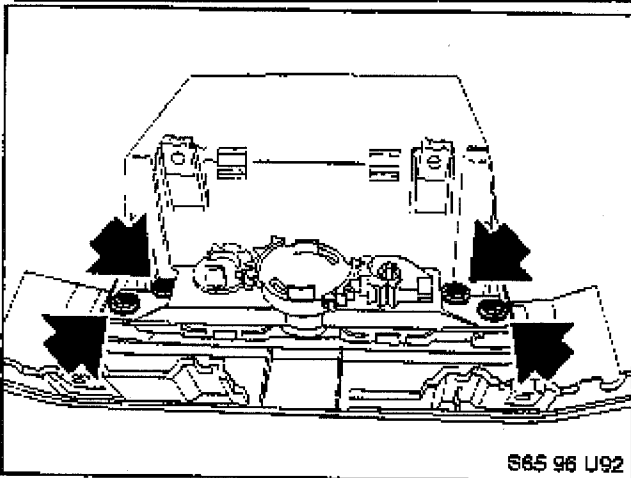
Remove the two 4.2 x 16mm Torx 20 head self tapping screws (see item 1) from the forward area of the rear storage compartment bin liner. Remove the remaining six 4.2 x 14mm Phillips head self tapping screws (see item 2) from the rear storage compartment bin liner. Remove the bin liner from the rear storage compartment.

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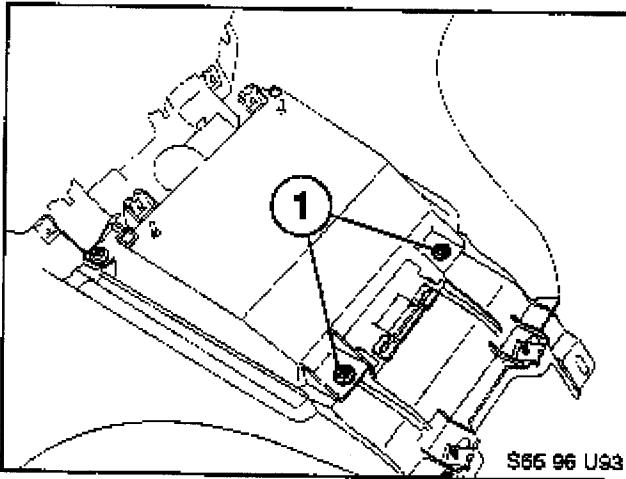
Remove the two 4.2 x 12mm Phillips head self tapping screws (see item 1) to remove latch assembly from the rear storage compartment. Remove the two 4.2 x 12mm Phillips head self tapping screws (see item 2) to remove the inner latch assembly from the rear storage compartment.

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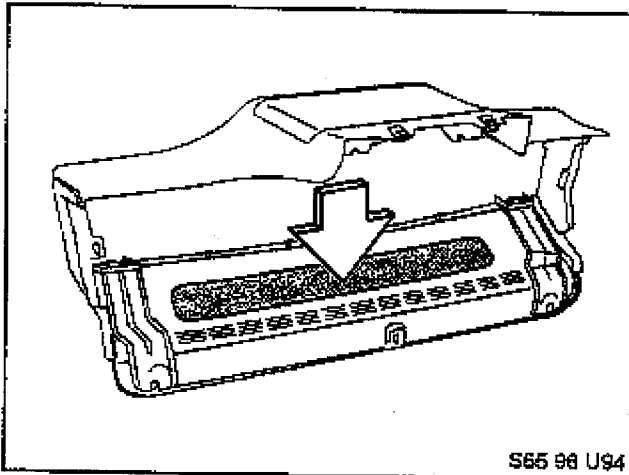


Remove the four M4 x 10mm machine thread screws to remove the lock assembly from the rear storage compartment.

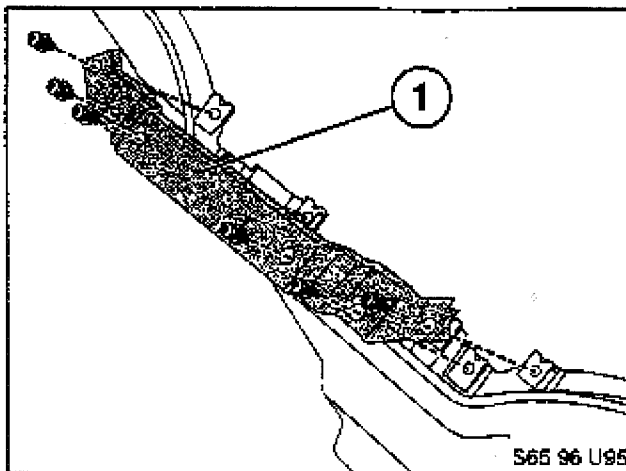
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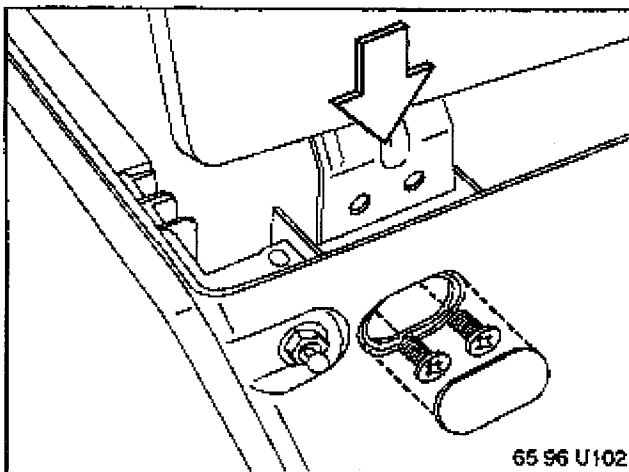
Remove the two 4.2 x 12mm Phillips head self tapping screws (see item 1) with flat washers to remove the forward storage bin and lock mechanism.



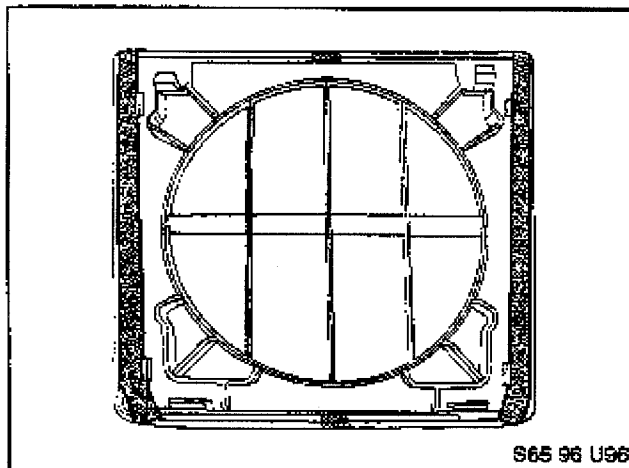
Using the locally sourced 5/16" thick self adhesive vinyl foam sponge material cut to size a piece 2" wide by 16" long and apply to the inner rear panel of the rear storage compartment. The bottom edge of the foam material should be 1.5" above and parallel to the uppermost vent openings.



Install the cover bracket (item 1) with the hardware provided to the rear storage compartment as shown.



Position the subwoofer top cover over the rear storage compartment with the rear hinges aligned in place. Secure the top cover hinges in place with the M4 x 10mm machine thread screws and flat washers. Install the pair of previously removed oval shaped covers.

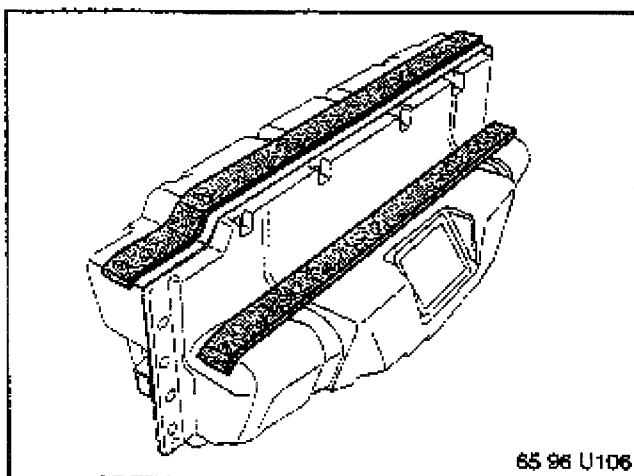


Using the locally sourced 5/16" thick self adhesive vinyl foam sponge material cut to size two pieces 3/8" wide by 6.5" long and apply to the LH and RH inner edges of the subwoofer grille cover as shown.

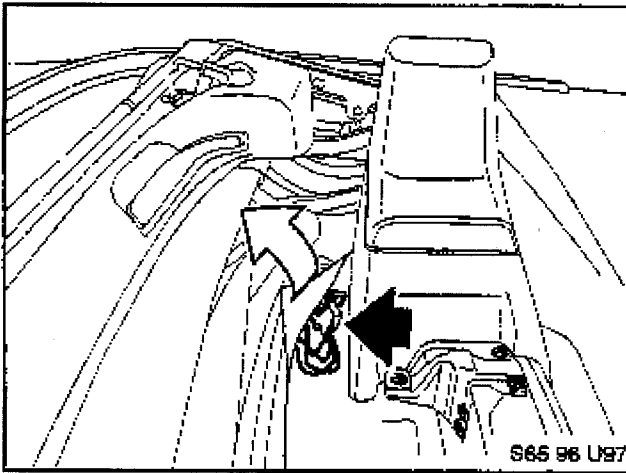
Installing the subwoofer grille cover pivot the top of the subwoofer grille into the opening and push the subwoofer grille bottom until the tabs lock into place.

The rear storage compartment has now been changed to a subwoofer compartment.

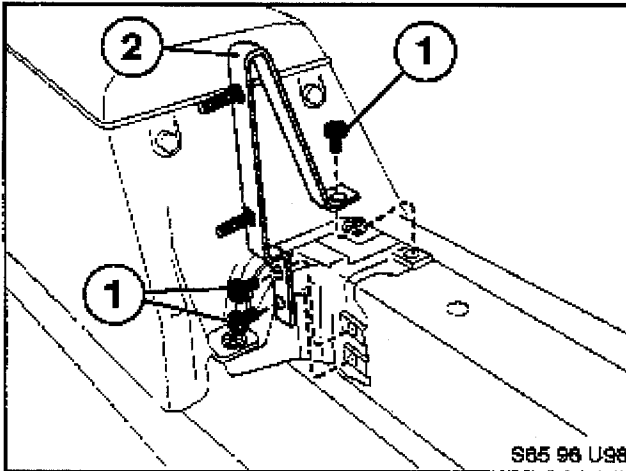
8. Installing the Subwoofer Box and Subwoofer Compartment



Using the locally sourced 5/16" thick self adhesive vinyl foam sponge material cut to size two pieces 1" wide by 19" long and apply to the bottom surface of the subwoofer box as shown.

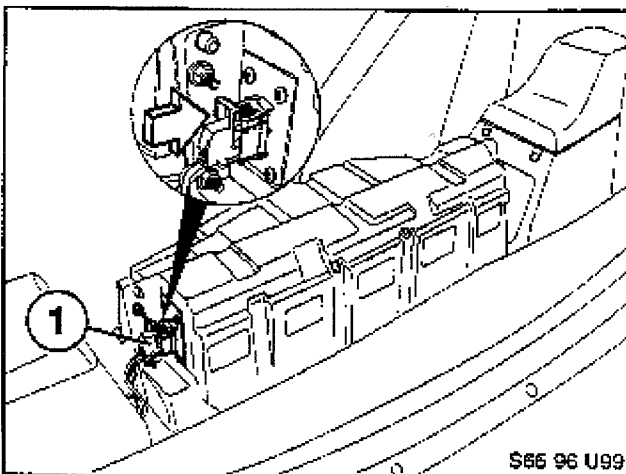


Before proceeding, locate the subwoofer harness: four wires: blue/violet, blue/gray, yellow/blue, and yellow/gray and connector (black AMP 12 pin male). It should be under the liner material behind the LH roll bar post (see arrow).

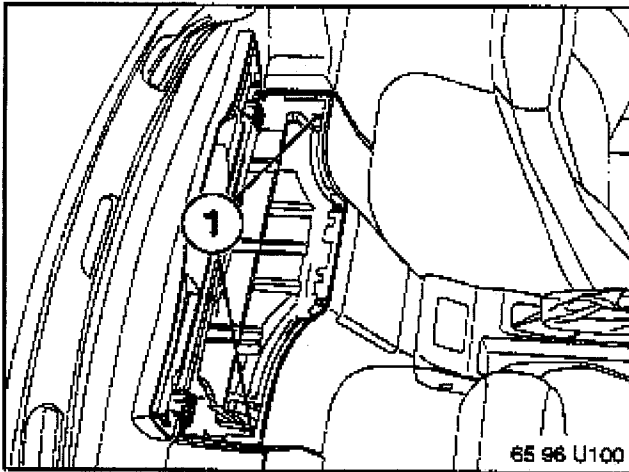


Remove the three 4.8 x 16mm Phillips head self tapping screws (item 1) on the LH and RH inner (pewter color) bracket. Install the LH and RH subwoofer box holders (see item 2) using three previously removed 4.8 x 16 self tap screws (item 1) per side.

Install the subwoofer box to the pair of holders and secure in place using four each M6 hex nuts.

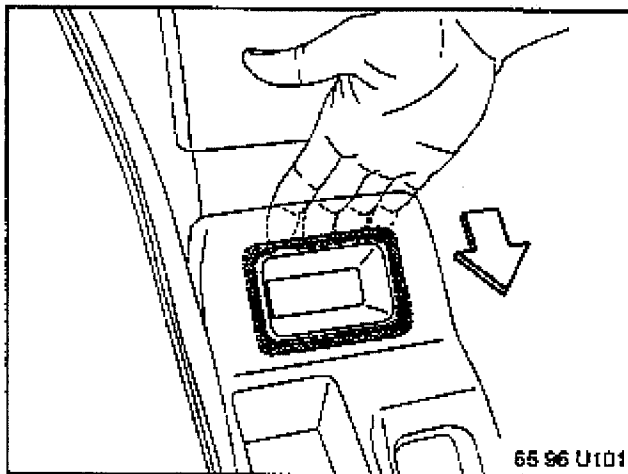


Connect the subwoofer connector (item 1) on the LH side to the subwoofer.



Install the subwoofer compartment over the subwoofer box. Do not pinch the rear vinyl window or any wire harness and make sure that all securing point areas are aligned in place. Secure the subwoofer storing partition with two 4.8 x 26mm self tapping screws (see item 1) with flat washer on the LH and RH inner top area.

Secure the bottom rear edge of the subwoofer box compartment with three 4.8 x 16mm self tap screws with large flat washers. Install plastic trim covers if previously used keeping in mind that these covers are position specific. Secure the two 4.2 x 14mm self tap screws with flat washers that secure the forward part of the subwoofer box compartment.



Pull up on the rear area of center console and position storage bin retainer piece (from behind center console) while positioning storage bin until it locks into place.

Install the LH and RH rear most center console 4.2 x 12mm self tap screws with flat washers.

Install the 4.8 x 24mm self tap screw with flat washer in the center console. Reinstall fuse #33 in the main distribution box.

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