



Installation Instructions

Date: April 2007
Order No.: P-I-82.60/573
Supersedes:
Group: 82

**SUBJECT: MODEL 211.265/282/283
MODEL YEAR 2005
SATELLITE RADIO INSTALLATION**

We are interested in your comments and/or suggestions regarding these installation instructions—please e-mail them to StarTekInfo@MBUSA.com

⚠ WARNING

Do not disconnect the negative battery cable. Extensive reprogramming requirements will otherwise be necessary. Wiring harnesses will be electrically active. It is therefore necessary to exercise extreme caution while executing these installation instructions. Failure to do so could result in severe vehicle damage, personal injury, or death from electrical shock. Keep the ignition and radio powered OFF through the final test.

Notes on MOST optical fibers

- Optical fibers damage easily—handle optical fibers with care to prevent cuts, nicks, abrasions, and crushing.
- Optical fiber “ring configurations” must form a closed loop to function (i.e. couple the input of a component with the output of the preceding component).
- Identify MOST optical fibers by their orange, semi-rigid insulation.
- Electromagnetic interference (EMI) from bundled vehicle electrical harnesses does not affect optical fibers.

NOTICE!

**Incorrect installation of connectors can result in damaged, bent pins.
Damaged, bent pins will result in component malfunction or failure.
Inspect connectors before and after installation.**

This bulletin has been created and maintained in accordance with MBUSA-SLP S423QH001, Document and Data Control, and MBUSA-SLP S424HH001, Control of Records.

A. Preparation for the installation

1. Read this installation instruction in its entirety before proceeding.
2. Unpack and compare the installation kit contents against the Parts Information list—Section J.
3. Remove the floor paneling in the load compartment.
 - Refer to *W/S* document: AR68.20-P-4811T, “Revoove/install load compartment floor front section”
4. Remove the right side paneling in the load compartment.
 - Refer to *W/S* document: AR68.30-P-1180T, “Revoove/install load compartment inner side paneling”
5. Cover the load compartment floor to catch falling debris and metal chips resulting from cutting the headliner and drilling the roof.

B. Drilling the hole in the roof for the SDARS antenna

1. Position and tape the “cutting template” (Figure 1) to the headliner in accordance with the instructions printed on the template.
2. Mark the headliner along the edges of the center rectangular (Arrow Figure 1).
3. Remove the template and tape from the headliner.
4. Use a sharp cutting instrument to cut out the rectangle marked on the headliner.

CAUTION

**Risk of bodily injury is involved.
Skin lacerations can result from
careless handling of sharp
instruments.**

**Exercise care when handling sharp
instruments.**



Figure 1

P82.60-4242-01

5. Position and tape the “drilling template” (Figure 2) to the roof in accordance with the printed instructions on the template.
6. Drill a 3 mm diameter pilot hole where indicated on the template (Arrow, Figure 2).

CAUTION

**Drilling metal can cause airborne
metal chips.**

**Airborne metal chips can cause
serious injury to the eyes.**

Wear protective eyewear.



Figure 2

P82.60-4243-01

NOTICE!

**Improper or careless drilling can damage
metal surfaces.**

**Paint or body damage to the roof can
result.**

Exercise care and accuracy when drilling.

7. Remove the template and tape from the roof.
8. Drill the 3 mm pilot hole to an enlarged 6 mm diameter pilot hole.
9. Drill the 6 mm diameter pilot hole to a 20 mm diameter hole using a UniBit®.

NOTICE!

Using a hole saw is not suitable for drilling a 20 mm diameter hole in the roof.

Using a hole saw will damage the roof.

Do not use a hole saw to drill the roof.

10. Remove the burrs around the hole edge, carefully clean away the metal chips from the roof, and remove the cover with debris and metal chips from the load compartment floor.
11. Thoroughly coat the 20 mm hole edge with primer and allow it to dry.

C. Installing the SDARS antenna

1. Find the preinstalled, coupled antenna leads (Figure 3) between the headliner and roof—near the cutout—and then disconnect them from one another.

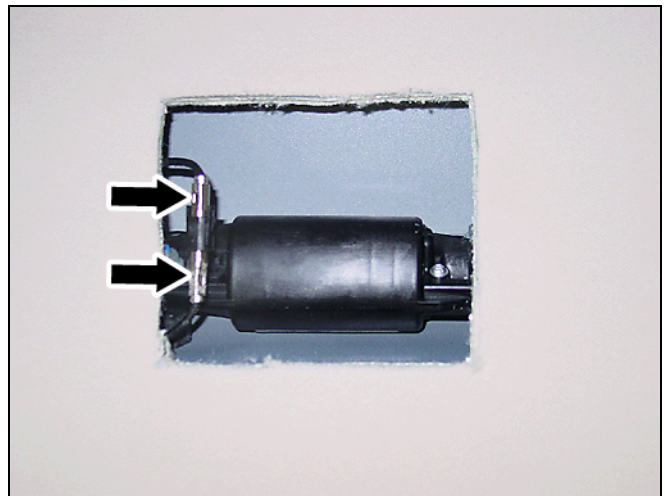


Figure 3

P82.60-4384-71

2. Find the “thicker,” plastic washer in the kit and remove the paper backing (Inset, Figure 4) from the adhesive side.
3. Affix the adhesive side of the washer (A, Figure 4) around the interior side of the 20 mm hole drilled through the roof.

Note: Seat the washer properly so the top of the inside lip is flush or protruding, never recessed, from the roof outer surface.

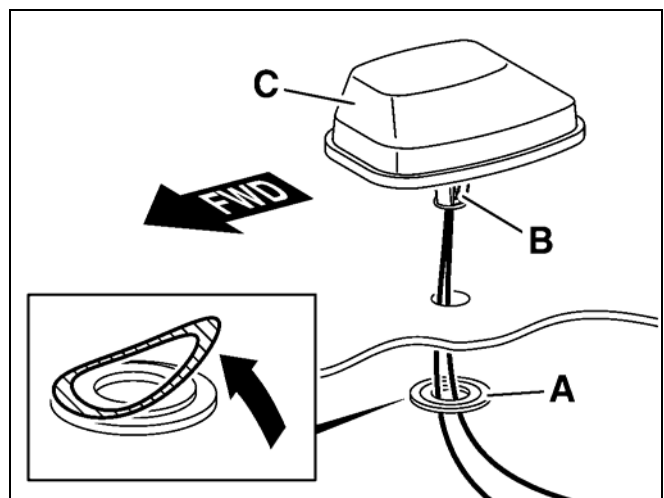


Figure 4

P82.60-4510-01

4. Loosen the T25 Torx screw (Figure 5) in the center of the SDARS antenna sleeve.
5. Feed the SDARS antenna leads, from the topside of the roof, through the 20 mm hole and washer (A, Figure 4).
6. Carefully insert the SDARS antenna sleeve (B, Figure 4) into the washer (A, Figure 4) until it audibly engages.

Note: Have an assistant hold the washer from beneath while inserting the SDARS antenna sleeve to prevent it from pushing out of the roof. (Hint: Use a 22 mm deep socket to hold the washer in place.)

NOTICE!

Applying force to body panels can result in damage.

Excessive force will dent the roof.

Do not use excessive force when inserting the antenna sleeve into the washer.

7. Align the SDARS antenna straight with the vertical end (A, Figure 6) facing the vehicle front and the beveled end (B, Figure 6) facing the vehicle rear.
8. Apply light downward pressure to the SDARS antenna so the gasket fully seats flush against the roof.

NOTICE!

Applying force to body panels can result in damage.

Excessive force will dent the roof.

Do not use excessive force when seating the gasket to the roof.

9. Tighten, but do not over tighten, the T25 Torx screw (Arrow, Figure 5) in the SDARS antenna sleeve while an assistant holds the antenna from above to prevent it from turning.



Figure 5

P82.60-4511-71

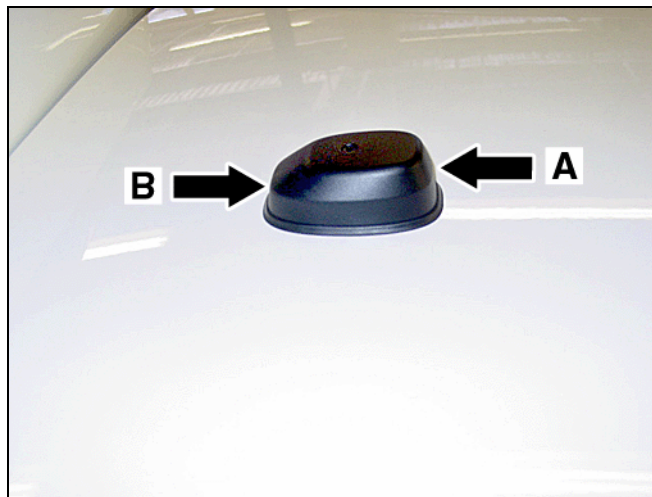


Figure 6

P82.60-4589-71

10. Connect the leads from the SDARS antenna to the preinstalled antenna leads (Figure 7).

Note: Make sure the connectors lock into the plastic retainer clips.

11. Insert the antenna leads into the cavity between the headliner and roof and use felt tape and to secure the coupled connectors and loose cabling to the roof.

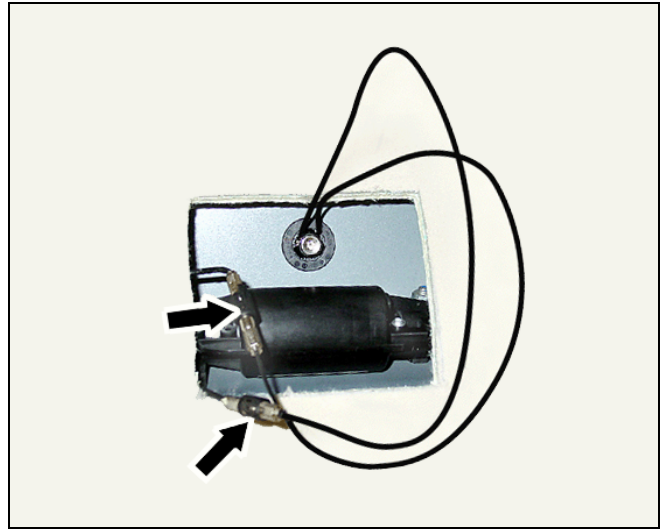


Figure 7

P82.60-4385-71

12. Install the headliner cutout frame (Figure 8) by inserting the bendable edges of the frame into the cutout and bending the edges over the headliner top (i.e. the topside of the headliner).

Note: Figure 8 shows the frame edges bent over the topside of the headliner.

⚠ CAUTION
Risk of bodily injury is involved.
Skin lacerations can result from handling of sharp edges.
Wear protective gloves when handling sharp edges.

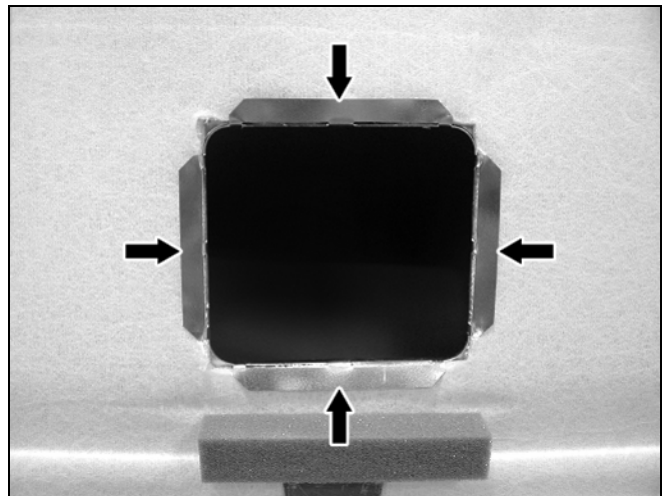


Figure 8

P82.60-4210-01

13. Install the cover (Figure 9) into the headliner cutout frame.

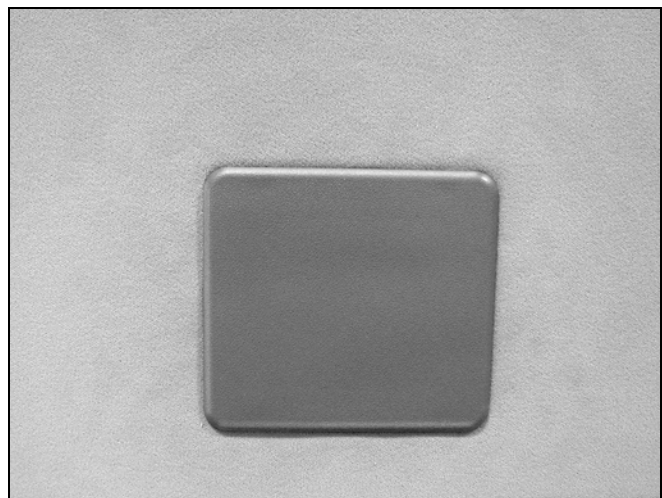


Figure 9

P82.60-4211-01

D. Identifying the cables and connectors

➤ If equipped with the harman/kardon® sub-woofer assembly, start at step 1.

➤ Otherwise skip to step 3.

1. Disconnect the speaker of the harman/kardon® sub-woofer assembly (A, Figure 10) on the exposed right side of the load compartment.
2. Remove the harman/kardon® sub-woofer assembly by removing the four nuts (Arrows, Figure 10) and bolt (B, Figure 10) securing it.

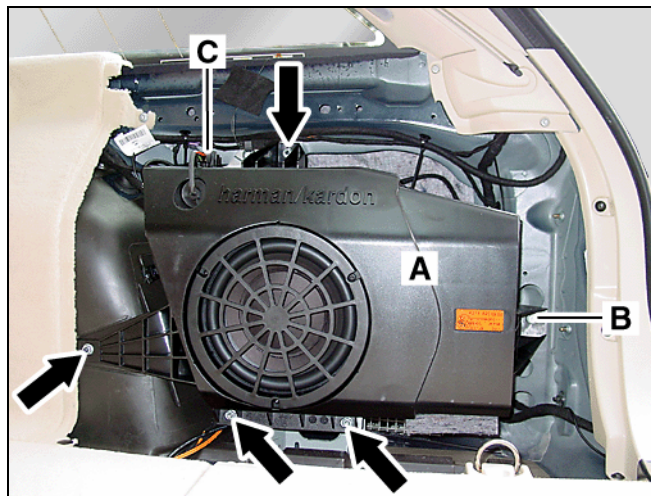


Figure 10

P82.60-4387-71

3. In the exposed right side well of the load compartment, find and identify the:
 - Power supply/MOST connector (A, Figure 11)
 - Antenna connectors (B, Figure 11)
4. Remove the tape and carefully cut the wire ties to release the power supply/MOST and antenna connectors and fold back or remove the foam from the antenna connectors.



Figure 11

P82.60-4388-71

E. Installing the MOST optical fiber adapter and configuring the MOST optical fiber ring

NOTICE!

Improper handling of optical fibers can damage the fibers.

Damaged optical fibers can cause component malfunction.

Handle optical fibers with care to prevent cuts, nicks, abrasions, and crushing.

1. In the exposed electronics compartment at the front of the load compartment, find and disassemble the optical fiber couplings and configure the MOST ring according to Figure 14.

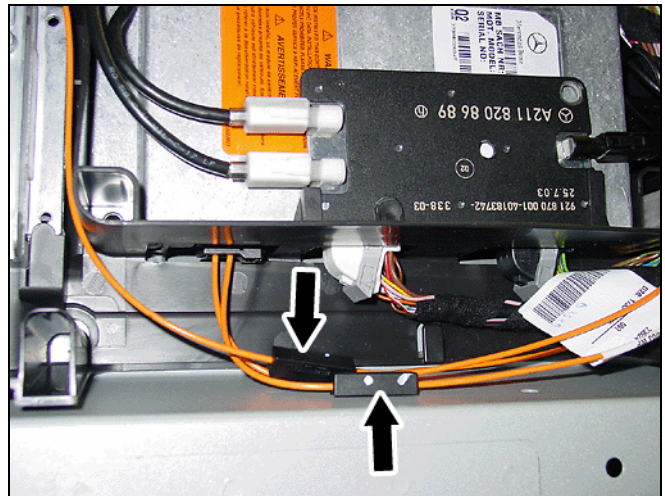


Figure 12

P82.60-4380-71

2. Position the optical fibers according to (Figure 13) and secure them with wire ties.

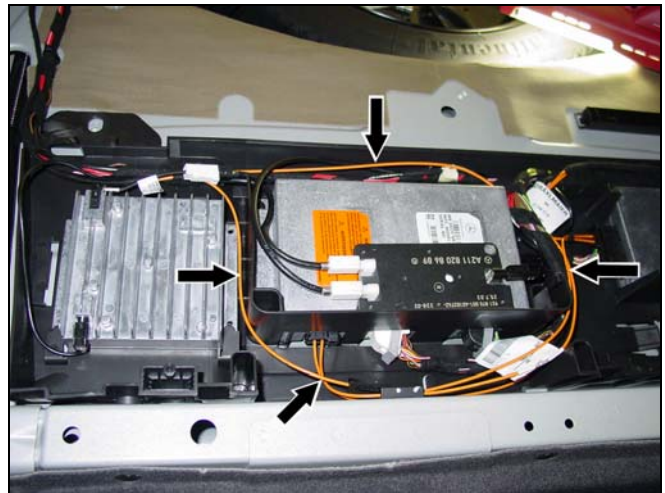


Figure 13

P82.60-4382-71

F. MOST ring configuration

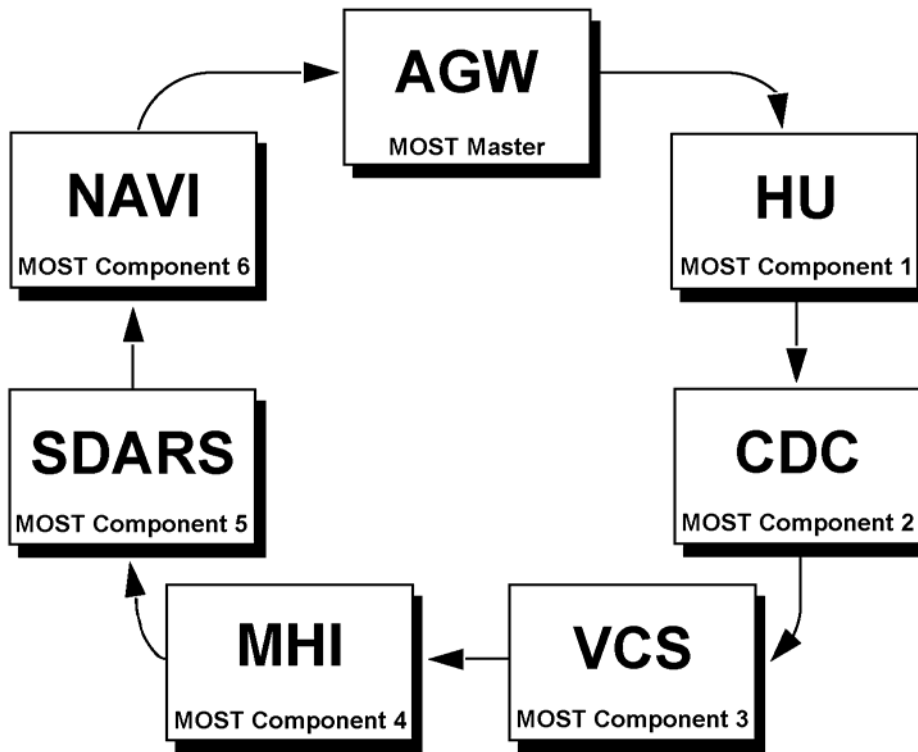


Figure 14

DWS-1

G. Installing the SDARS control module

1. Find the SDARS control module (Figure 15) in the kit.



Figure 15

DWS-2

2. Mount the SDARS control module (N87/5, Figure 16) to the bracket (5, Figure 16) with three kit-included M5 x 8 hex nuts (Arrows, Figure 16).

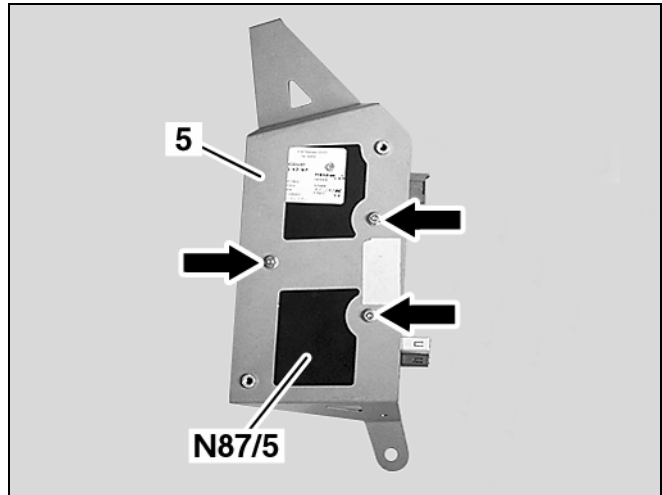


Figure 16

P82.60-4241-01

3. Mount the SDARS control module/bracket assembly.
 - a. Secure the upper arm (A, Figure 17) of the bracket to the fastening point on the quarter panel with the kit-included, M6 nut.

Note: Do not fasten the bracket upper arm if the vehicle is equipped with the harman/kardon® sub-woofer assembly.

- b. Secure the lower arm (B, Figure 17) of the bracket to the fastening point on the floor with the kit-included, plastic nut.
4. Connect the blue and white connectors of the antenna dampening cable (Arrows, Figure 17) to the like-color connectors of the preinstalled antenna leads (C, Figure 17).
5. Connect the blue and white connectors of the other end of the antenna dampening cable to the like-color connectors of the SDARS control module (D, Figure 17).
6. Secure the antenna dampening cable to the vehicle harness with wire ties (Arrows, Figure 17).
7. Connect the power supply/MOST connector (E, Figure 17) to the SDARS control module.
8. Secure any loose cabling with wire ties.

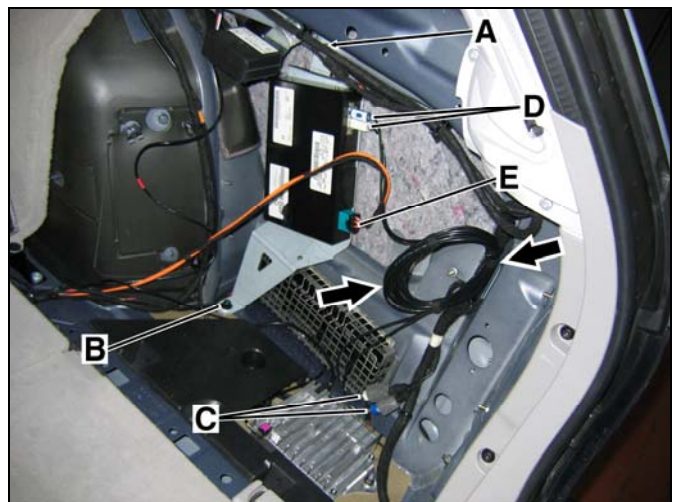


Figure 17

DWS-3

➤ **If harman/kardon® sub-woofer equipped:**

9. Reinstall the harman/kardon® sub-woofer assembly (A, Figure 18).
 - a. Reuse the previously removed nuts to secure the bottom and front of the sub-woofer (Arrows, Figure 18).
 - b. Secure the rear of the sub-woofer with the previously removed bolt (B, Figure 18).
 - c. Reconnect the speaker (C, Figure 18).
 - d. Secure the top of the sub-woofer along with the upper arm of the SDARS control module bracket with the previously removed nut (D, Figure 18).

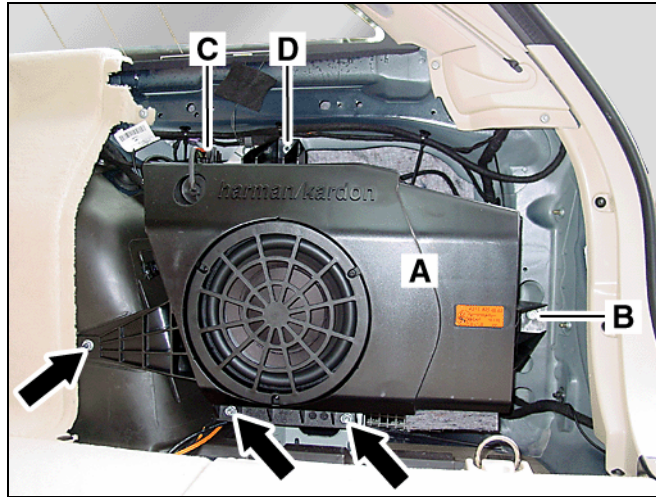


Figure 18

P82.60-4390-71

H. Version coding

1. Connect Star Diagnosis to the vehicle.
2. Set the MOST ring configuration to match Figure 14 via path:

Control Units > Information and communication > Audio, video, navigation and telematics > AGW – Audio gateway > Retrofitting of MOST components (final screen display: “Retrofitting of MOST components” must indicate “Coding has been successfully completed”

Note: The MOST ring configuration in Figure 14 is an example of a configuration including all possible components. Some installations will not include all the components shown in the example. If a component is not present, connect the preceding component to the component following the one not present.

NOTICE!

Match the MOST ring configuration to Figure 14.

Failure to have the configuration match Figure 14 will result in erroneous system operation and/or intermittent malfunctioning of some or all components in the ring.

Do not alter the configuration in Figure 14 to match the vehicle configuration.

3. Check the DTC memory of all installed components and the head unit. Investigate and identify the source of any present DTC(s). Correct the source of present DTC(s) and clear the DTC memory.

Note: Powering up the newly installed system prior to the above described version coding will set MOST ring configuration errors. Ignore these errors during the initial DTC check. If the DTC(s) return in the next step after clearing them, a configuration error is present. Locate and correct the error.

4. Confirm no new DTC(s) were set in the MOST system group.

I. Final assembly and function testing

1. Verify proper satellite Radio operation:
 - ✓ Audio is functional (radio and CD changer)
 - ✓ Satellite radio display is present on the head unit
 - ✓ Sirius preview message is heard when Satellite Function is selected on the head unit¹
¹The vehicle must be in a geographic area that allows reception.
2. Reinstall the right side paneling in the load compartment.
 - Refer to *W/S* document: AR68.30-P-1180T, "Revoove/install load compartment inner side paneling"
3. Reinstall the floor paneling in the load compartment.
 - Refer to *W/S* document: AR68.20-P-4811T, "Revoove/install load compartment floor front section"

J. Parts Information

Qty.	Part Name	Part Number/Exchange
1	Kit, satellite radio (E-Class station wagon)	B6 783 0003
Kit contents:		
1	Nut, plastic	A003 990 02 51
1	SDARS control module	B6 783 0012
1	Antenna	B6 783 0014
1	Bracket, SDARS control module	B6 783 0018
1	Cable, antenna dampening	B6 783 0031
1	Frame, headliner cutout	B6 783 0035
1	Cover, headliner cutout	B6 783 0036
3	Nut, M5 X 8	N913023 005002
1	Nut, M6	N913023 006001
Parts not included in the kit		
1	Template (drilling), roof	B6 783 0038
1	Template (cutting), headliner	B6 783 0040
Separate orders:		
1	Felt, 70 mm x 100 mm	A000 983 89 10
1	Primer	A000 986 06 50

Note: This installation, and any subsequent related installation and/or workmanship issues, cannot be claimed under warranty.