Mercedes-Benz

star bulletin

Installation Instructions

Date: October 2004

Order No.: ***PRELIMINARY DRAFT***

Supersedes:

Group: 82

SUBJECT: MODEL 171
MODEL YEAR 2005
SATELLITE RADIO INSTALLATION

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

MOST Notes:

- Fibers easily damage—handle fibers with care to prevent cuts, nicks, abrasions, kinks, and crushing.
- Minimum bend radius for fibers is 25 mm.
- Fiber optics “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 cables by their orange, semi-rigid insulation and the label name.
- Electromagnetic interference (EMI) from bundled vehicle electrical harnesses does not affect fibers.

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

A. Installation preparation

1. Read this installation instruction in its entirety before proceeding.
2. Unpack and compare the installation kit contents against the Parts Information list on last page.
3. Place the operating guides and customer accessories in the glove box or appropriate storage compartment.
4. Cover the trunk floor to catch metal chips from drilling.
5. The SDARS bracket assembly consist of 2 parts A and B. (Figure 1)

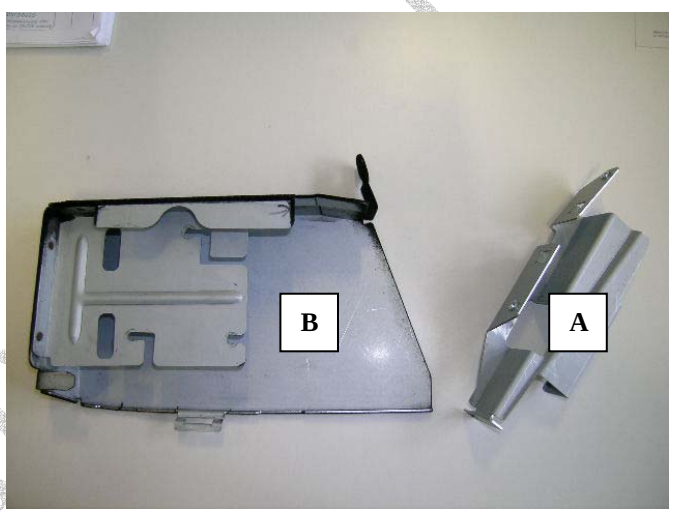

Figure 1

B. Installing the SDAR antenna

1. Mask the outside of the trunk lid with masking tape (approx 8”x8” area) in the area where the hole will be drilled. (Figure 2)
2. Open trunk lid.
3. Remove trunk lid paneling (refer to WIS: AR68.30-P-8150 V).

Figure 2

4. Place “drilling template” (Part Number: B6 783 0059) into the long slot in the underside of the trunk lid, positioning it at the lower part of the slot (arrow, Figure 3).
5. Drill a 6-mm diameter pilot hole indicated by the drilling template (Figure 3).

   CAUTION

   Risk of bodily injury is involved. Use protective eyewear.
6. Drilling from the top of the trunk enlarge the 6-mm diameter pilot hole to a 20-mm diameter hole using a UniBit®.

   NOTICE

   Do not use a hole saw. Damage to the trunk lid will result from using a hole saw.
7. Remove the burrs around the hole edge and carefully clean away the metal chips from the trunk lid.
8. Remove the tape from the trunk lid and remove the cover with metal chips from the trunk floor.
9. Thoroughly coat the 20-mm diameter hole edge with primer (Part Number A 000 986 06 50) and allow it to dry.

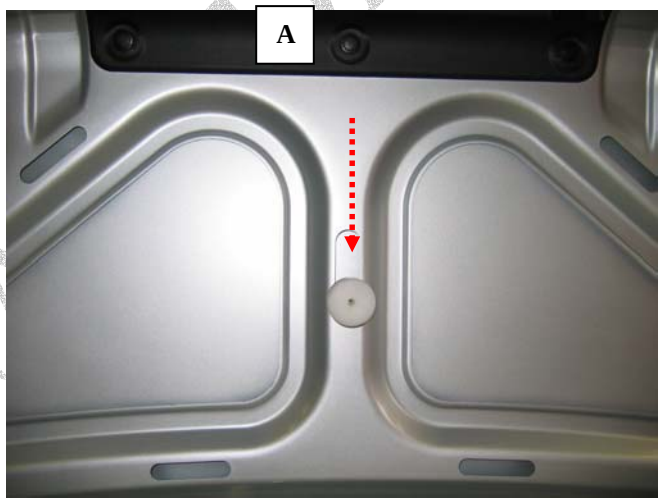

Figure 3

10. Remove the wax paper backing from the self-adhesive side of the “thicker” plastic washer (Figure 4).
11. From the trunk lid underside, affix the adhesive side of the washer around the 20-mm hole (Figure 4).

    Note: Make sure the washer seats properly and the top of the inside lip is flush or protruding—never recessed—from the top of the trunk lid.

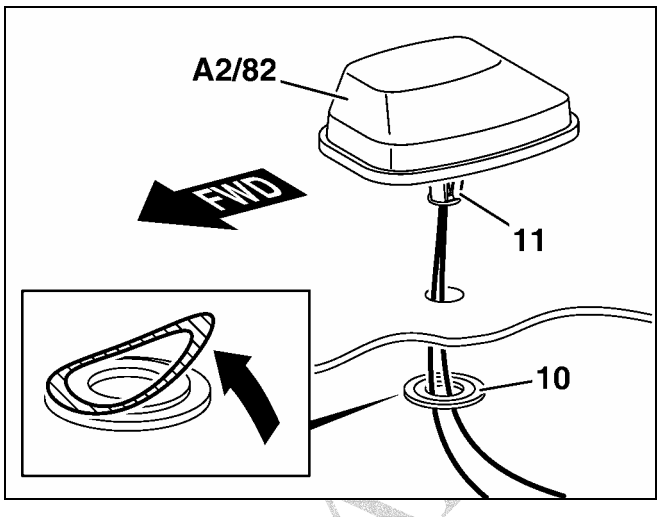

Figure 4 P82.60-4122-01

12. Loosen the T25 Torx screw in the SDAR antenna sleeve (Figure 5).
13. Feed the SDAR antenna leads, from the topside of the trunk lid, through the affixed washer (Figure 4).
14. Carefully insert the SDAR antenna sleeve (Figure 5) into the washer (Figure 4) until it snaps into place.

    Note: Hold the washer from beneath while inserting the SDAR antenna sleeve to prevent it from pushing out of the trunk lid. (Hint: Use a 22-mm deep socket to hold the washer in place.)

    NOTICE
    Do not damage the trunk lid by applying excessive force.

Figure 5 **P82.60-4511-71**

15. Align the SDAR antenna straight with the vertical end (Figure 4) facing the vehicle front and the beveled end the vehicle rear (Figure 6).
16. Apply light downward pressure to the SDAR antenna so the gasket fully seats flush against the trunk lid.

    NOTICE
    Do not damage the trunk lid by applying excessive force.

17. Tighten, but do not over tighten, the T25 Torx screw in the SDAR antenna sleeve (Arrow, Figure 5) while holding the antenna from above to keep it from turning.

Figure 6

18. Remove cover to expose the leads which will connect to the SDARS antenna. (Figure 7)

Figure 7

19. Find the foam-covered antenna leads at the trunk-panel collar (Figure 8)
20. Route the antenna cables trough the tunnel underside at the trunk lid .

Figure 8

P82.60-4121-01

21. Connect the vehicle leads to the connectors of the SDAR antenna cables (Figure 9)

Figure 9

22. Secure the SDAR antenna connection to the wiring harness along panel collar of the trunk lid with a standard wire tie (Figure 10).

Figure 10

C. Installing the satellite radio control module

1. Remove the plastic cover in the left trunk side. (Figure 11)

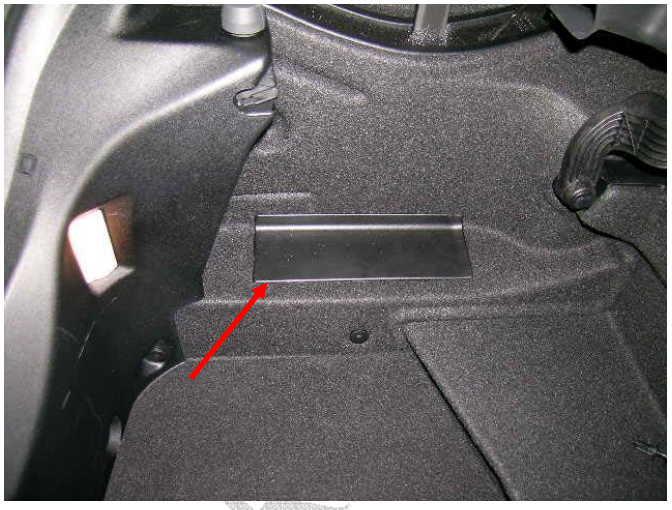

Figure 11

2. You´ll find the power supply (A, Figure 12), SDAR MOST connector (B, Figure 12) and the antenna leads (C, Figure 12).
3. Carefully cut the wire tie securing the wiring harness (D, Figure 12) and remove the wire tie anchor from the hole (D, Figure 12).

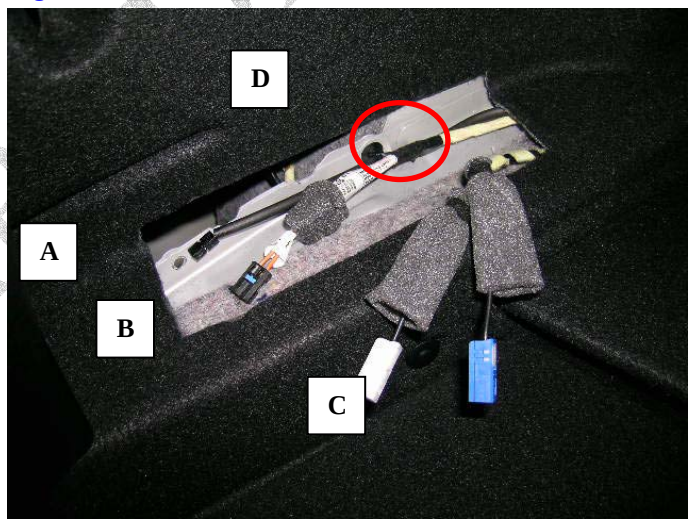

Figure 12

4. Mount the part A of the SDAR bracket (Figure 1) over the body rabbet with the two provided screws M5 (Figure 13).
   Hint: The bracket must be behind the body rabbet.

   Note: Be careful not to pinch any wires between the bracket and floor when installing the bracket assembly.

Figure 13

5. Affix two felts (35x25 mm) on the bracket over the sharp edges as shown. (Figure 14)

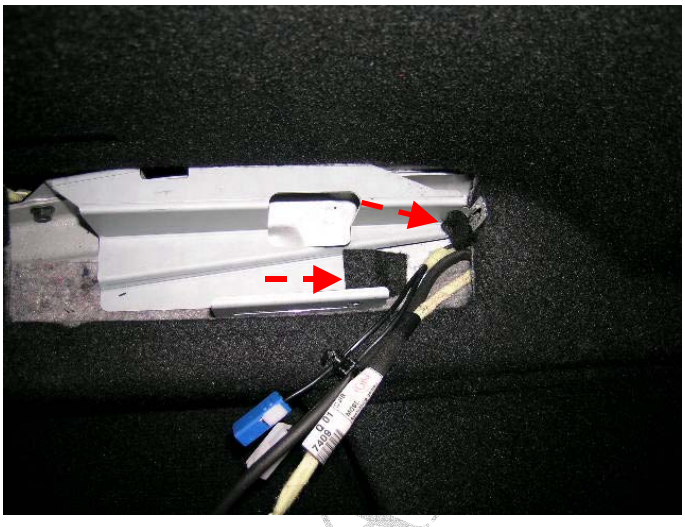

Figure 14

6. Using the “Omega”-tie-clip fasten the MOST harness and the power supply to the hole in the bracket (Figure 15).
7. Route the SDARS cables around to the left and through the square hole in the bracket.

Figure 15

8. Affix felt (130x70 mm) on the SDAR receiver as shown (Figure 16).

Figure 16

9. Mount the SDAR control unit to the bracket with three M5 hex nuts (Figure 17).

Figure 17

10. Remove the foam from the power supply, SDAR most connector and the antenna leads (Figure 18).
11. Connect the antenna leads—according to matching colors—to the SDAR control module (Figure 18).
12. Connect the SDAR power supply and the Most connector into the provided female MOST adapter and connect them to the SDAR control module (Figure 18).

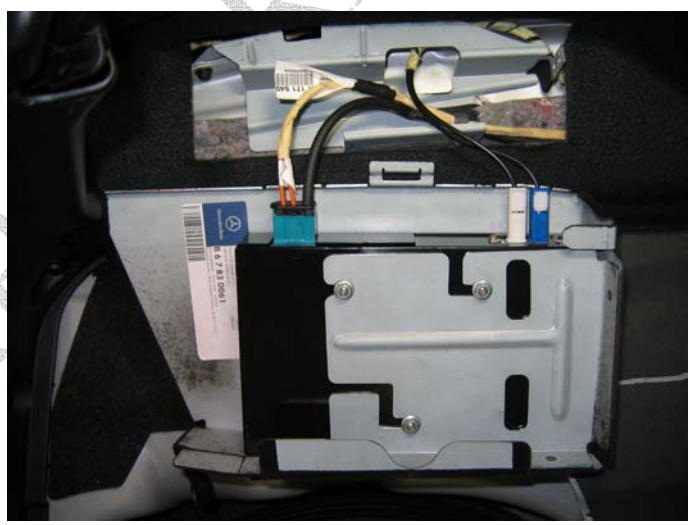

Figure 18

13. Bring the latch of the SDAR bracket part B into the correct position, in order to insert into the slot of the mounted bracket (A, Figure 19).
    Note: Be careful not to pinch any wires when installing the bracket assembly.
14. Turn up the SDAR bracket part B and join the latch into the slot at the mounted SDAR bracket part A (A, Figure 19).
15. Push the SDAR bracket part B carfully to the rear position and thread them into the latch with exactly look, so that the cables are not demaged (Figure 19).

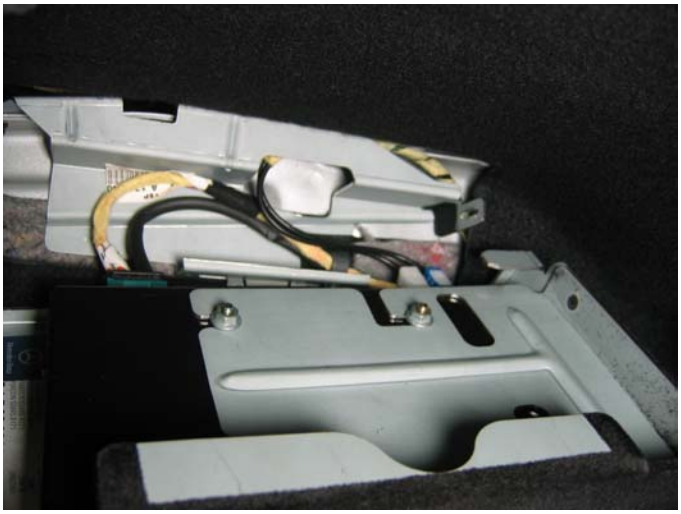

Figure 19

16. Pull back on the SDAR bracket part B until it touches the paneling. Fasten the SDAR bracket part B with the removed expanding rivet. (Figure 20)

    Hint:
    Hold any paper between the SDAR bracket part B and the trunk cover while pulling back.

17. Push down the Bracket assembly during the mounting.

Figure 20

18. Remove the paper and press the trunk cover from behind on the SDAR bracket assembly. (Figure 21)

Figure 21

D. Accessing the accessory tray

NOTICE
Do not kink optical fibers, route them over sharp edges, or bend them in radii smaller than 25 mm.

1. Remove the trunk cover behind the front seat (Figure 22)
   See WIS document 171AR68.30-P-4810V.
2. Remove the 12 T10 Torx bolts securing the accessories tray and tilt the tray towards the rear. (Be careful of wires behind the tray which are wire tied and need to be cut, allowing the tray to be completely tilted.)

Figure 22

E. Install fiber optic cable and configure MOST ring

1. Determine which of three possible component combinations the vehicle has and proceed to the corresponding subsection.
   i. navigation, no CTEL
   ii. navigation and CTEL
   iii. no navigation or CTEL installed

i. navigation, no CTEL

2. Open the SDARS coupler and configure the MOST ring according to Figure 27.
3. Open the loop which enters the tray on the left. This is SDARS (Figure 23).
4. Install fiber optic cable (Figure 23) into MOST ring as indicated in MOST ring configuration diagram Figure 27. (The cables for the existing ring enter on the right. Navigation comes down in the center from the navigation unit.)
   Hint:
   SDARS out > connector B to NAVI
   SDARS in > from connector from SBS

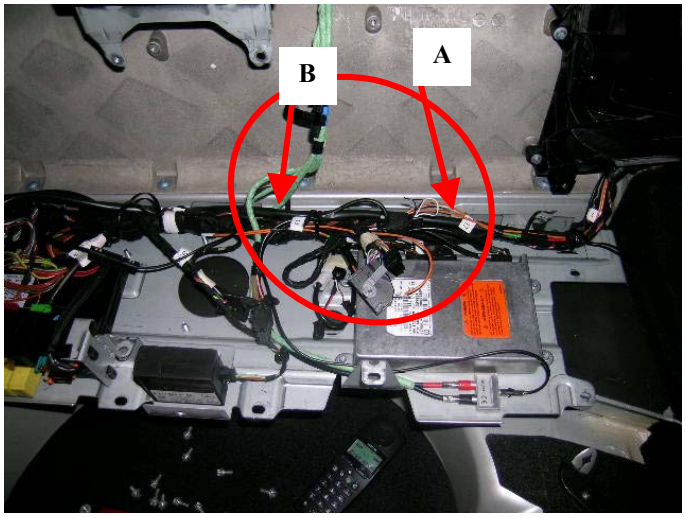

Figure 23

ii. navigation and CTEL

5. Open the SDARS coupler and configure the MOST ring according to Figure 27.
6. Open the loop which enters the tray on the left. This is SDARS (Figure 24).
7. Install fiber optic cable (Figure 24) into MOST ring as indicated in MOST ring configuration diagram Figure 27. (The cables for the for the existing ring enter on the right. CTEL is lower right. Navigation comes down in the center from the navigation unit.)
   Hint:
   SDARS out > connector B to NAVI
   SDARS in > from connector from SBS/UHI

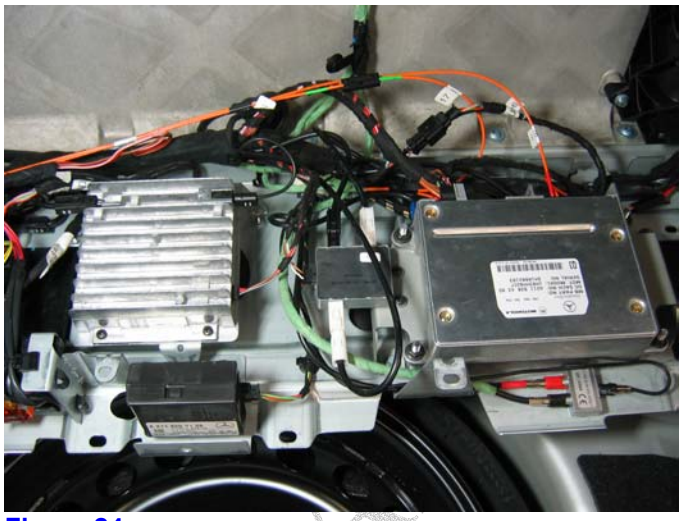

Figure 24

iii. no navigation, or CTEL

8. Open the SDARS coupler and configure the MOST ring according to Figure 27.
9. Open the loop which enters the tray on the left. This is SDARS (Figure 25).
10. Install fiber optic cable (Figure 25) into MOST ring as indicated in MOST ring configuration diagram (Figure 27). (The cables for the existing ring enter on the right.)
    Hint:
    SDARS out > connector B to HU
    SDARS in > from connector SBS

Figure 25

NOTICE

On the left side of the accessory tray insert the kit-included, 7.5 amp fuse into position 16 of the rear SAM fuse and relay module (Figure 26).

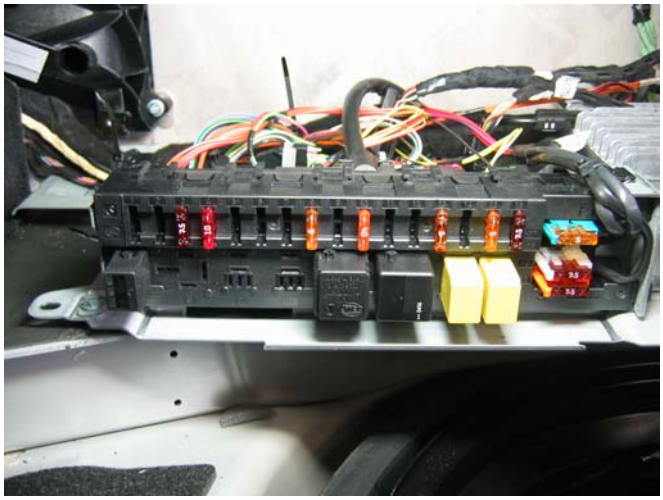

Figure 26

F. Version coding

1. Connect the Star Diagnosis System to the vehicle and perform the version coding outlined below.
2. Set the MOST ring configuration to match that of Figure 27 by using the path:

   Control units > Information and communication > Audio, video, navigation and telematics > AGW - Audio Gateway > Retrofitting of MOST components > F2: Restart of optical ring > Verify configuration of the MOST components, then press F2: Actual configuration of MOST components > F2: Continue > F3: Yes (To write the current actual configuration of the MOST components into the MOST master as the future specified configuration) > F2: Erase fault memory

   Note: The MOST ring configuration in Figure 27 is an example of a configuration including every component. 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
   DO NOT alter the configuration in Figure 27 to match the vehicle configuration. Failure to have the configuration match Figure 27 will result in erroneous system operation and/or intermittent malfunctioning of some or all components.

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

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

4. Confirm no new DTC(s) are present in the MOST system group.

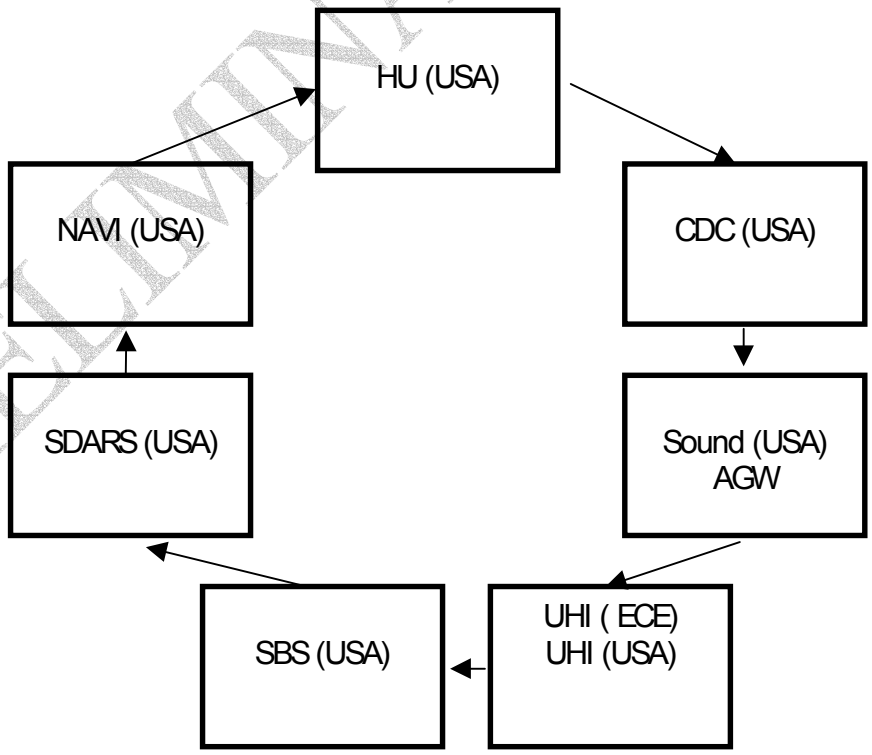

Figure 27 P82.60-4698-11

G. Final assembly and function testing

1. Verify proper Satellite Radio operation per the following checklist
- Audio is functional (Radio and CD)
- Satellite Radio display is present on Head Unit and Instrument Cluster
  Sirius preview message is heard when Satellite function is selected (Note: Vehicle must be in an area, which permits reception).

2. Reassemble vehicle in reverse order.

Parts Information

Qty.	Part Name	Part Number/Exchange
1	SDAR Installation Kit, R171	B6 783 0046
	Content:	
1	Receiver	B6 783 0012
1	Antenna	B6 783 0014
1	Bracket receiver (Parts A and B)	B6 783 0061
3	Nut, M5X8	N910 112 005 000
2	Screw, M5	A203 990 0036
1	Female MOST Adapter, black	A 000 545 84 30
1	Omega-clip	A 000 995 60 14
1	Felt 200 x 70 mm (to be divided in 1 peace 150x70 mm and two pieces 25x35 mm)	A 000 983 89 10
1	Drill Template	B6 783 0059

Note:
This installation can not be claimed under warranty.