Mercedes-Benz

star bulletin

Install

Date: October 2002

Order No.: P-I-82.70/181

Supersedes:

Group: 82

SUBJECT: MODEL 203.040/061/064/065/081/084 (Sedan)

MODEL YEAR 2003

CELLULAR TELEPHONE/OPTIONAL VOICE CONTROL SYSTEM INSTALLATION

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

WARNING

Disconnecting the negative battery cable is not recommended due to otherwise extensive reprogramming requirements. 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. The ignition and radio power must remain OFF until the final test is performed.

Application Specific D2B Notes:

- Telephone, voice control, and (if COMAND is installed) Tele Aid fibers are installed in the vehicle at the factory. The fibers run along the right side of the vehicle to the right quarter panel and the front of the trunk floor.
- Fiber reconfiguration is necessary for any accessory installation.
- If equipped with COMAND, the vehicle is configured at the factory for Tele Aid.
- The vehicle is configured at the factory for the sound system amplifier, if so equipped.

This bulletin has been created and maintained in accordance with MBUSA-SLP 5.1, Document and Data Control, and MBUSA-SLP 16.1, Control of Quality Records.

A. Installation preparation—all configurations

1. Read this bulletin in its entirety before starting.
2. Check to make sure the following relays and fuses are installed and install them if not:
   - N10/1kP relay located in the front SAM (N10/1)
   - N10/2kF relay located in the rear SAM (N10/2)
   - N10/1f44 – 5 amp fuse located in the front SAM (N10/1)
   - N10/2f13 – 5 amp fuse located in the rear SAM (N10/2)
   - N10/2f16* – 7.5 amp fuse located in the rear SAM (N10/2)
   - F34f40* – 7.5 amp fuse located in the interior fuse box (F34)

     *The ETM may show the current rating for fuse F16 and fuse F40 incorrectly. Check your ETMs to make the following corrections if needed: Fuse F16 is “7.5 amps;” fuse F40 is “7.5 amps.”
2. Unpack and compare the installation kit(s) contents against the Parts Information list on page 11.
3. Place the operating guides and customer accessories in the glove box or appropriate storage compartment.
4. Insert the telephone fuse #16.
5. If installing the optional voice control module (VCM), remove the trunk mat and cover (secured by two plastic rivets) over the electronics compartment in the trunk floor.
6. Remove the right liner panel in the trunk.

   Note: In Model 203.081 without the Bose® Sound System, the right liner panel in the trunk may need to be replaced with part number A 203 690 08 41 9C 86 (refer to the Parts Information table on page 11). Replacement is only necessary if the right liner panel of the trunk is molded into the area where the telephone kit will be installed. Replacement is not necessary on Model 203.084.

7. Determine the number and sequence of the D2B components to be installed and then locate and configure all fiber optic cables.

   Note: Refer to S-B-82.70/135B, “D2B Fiber Optic Configuration and Version Coding” for proper handling and configuration of D2B fibers.

B. Mounting the portable support electronics (PSE) and linear compensator

1. In the right rear quarter panel area, locate the:
   - 25-pole D-connector
   - coaxial cable from the front center console (C, Figure 6)
   - fiber optic connector
   - integrated bumper antenna cable (A, Figure 6)
   - 4-pole antenna switch connector

   Note: Some cable connectors are tucked behind the amplifier; removing the amplifier may be necessary.
2. Mount the linear compensator to the installation bracket with four M4 x 10 screws positioning compensator so the receptacle for the green 14-pole connector faces the bracket side with the mounting tab (A, Figure 1).
3. Mount the PSE to the installation bracket with four M4 x 6 screws (B, Figure 1).

   NOTICE
   DO NOT use screws longer than those described in Step 3. PSE damage will otherwise result.
4. Connect the 25-pole female side of the telephone Y-cable to the PSE and gently hand-tighten the retaining screws.

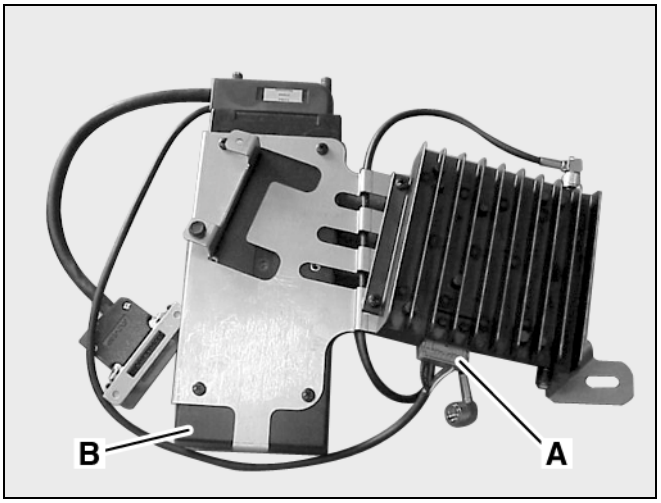


Figure 1 P82.70-3408-01

5. Connect the green 14-pole connector to the linear compensator.
6. Mount the antenna switch to the back of the installation bracket with two M4 x 6 screws (Figure 2).
7. Connect the antenna switch cable labeled “Booster” to the linear compensator jack labeled “Antenna.”

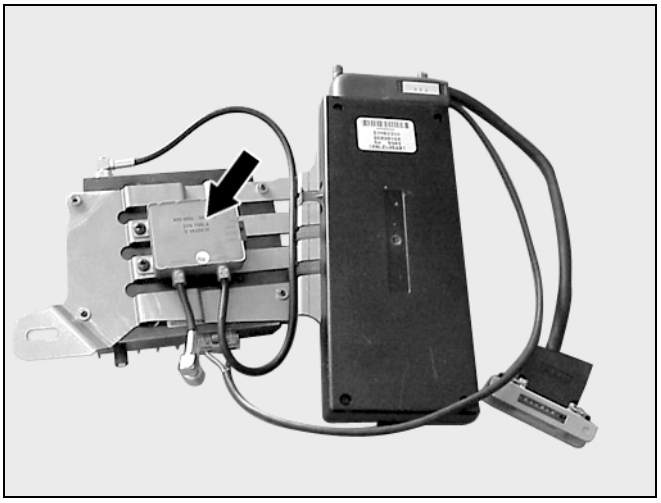


Figure 2 P82.70-3409-01

C. Mounting the optional voice control module (VCM)

1. Proceed to Section E if not installing the optional VCM.
2. Located the:
   - 15-pole D-connector harness
   - Fiber optic connector (remove any wire-ties to allow free movement of the optical fibers)
3. Mount the VCM bracket assembly to the left compartment of the electronics compartment with three M5 self-tapping screws (Figure 3).
4. Connect the 15-pole connector and optical fibers to the VCM.

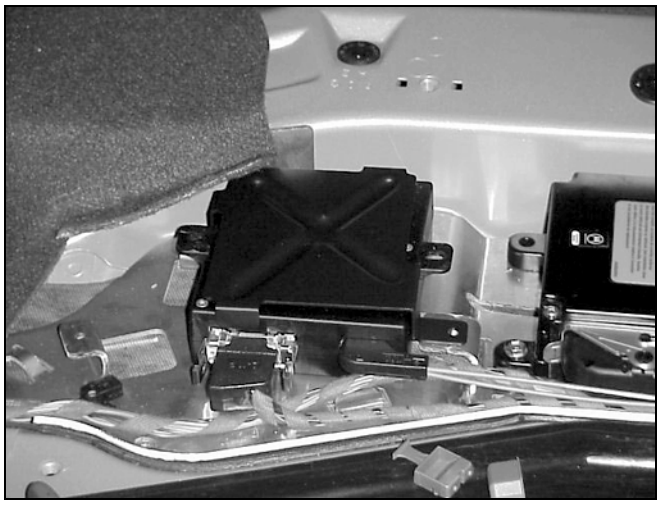


Figure 3 P82.70-3410-01

D. Installing the push-to-talk (PTT) lever

1. Completely extend and lower the steering column.
2. Remove the PTT lever switch plug on the steering column opposite the cruise control lever by carefully inserting a small screwdriver between the plug and switch opening and then gently prying away the plug (Figure 4).

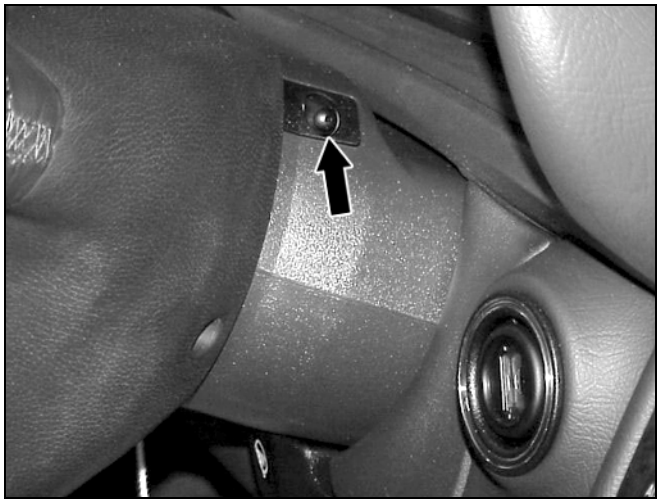


Figure 4 P82.70-3412-01

3. Insert the PTT lever into the lever switch opening with the handle pointing up.
4. Apply steady inward pressure while gently rotating the lever toward you until it snaps into place (Figure 5).

Figure 5 P82.70-3413-01

E. Installing the completed bracket assembly

1. Disconnect the Tele Aid antenna cable (B, Figure 6) from the integrated bumper antenna cable (A, Figure 6) located in the right area of the trunk (Figure 6).
2. Place the completed bracket assembly near the point of installation and connect the integrated bumper antenna cable (A, Figure 6) to the antenna switch jack labeled “ANTENNA.”
3. Connect the Tele Aid antenna cable to the antenna switch jack labeled “EMERGENCY.”
4. Connect the 25-pole Y-cable connector to the mating pre-wire harness of the vehicle side.
5. Remove the protective cap from the D2B optical connector and connect it to the PSE module receptacle.
6. Route the fiber optic cable between the PSE and linear compensator.

NOTICE

Handle the fiber optics with care. The fibers must remain free of kinks, sharp bends, and abrasions.

7. Connect the 4-pole connector to the antenna switch.
8. Thread the two sheet metal screws halfway into the mounting bracket tabs (Figure 7 [shows the bracket already mounted]).
9. Seat the completed bracket assembly by placing the two screws extending from the tabs through the backside of the mounting plate (Figure 7) and the slot of the adjacent mounting tab over the quarter-panel stud (Figure 8).
10. Connect the coaxial cable coming from the center console (C, Figure 6) to the linear compensator jack labeled “PORTABLE.”
11. Tighten the two sheet metal screws and then thread the supplied flange nut onto the stud and tighten.

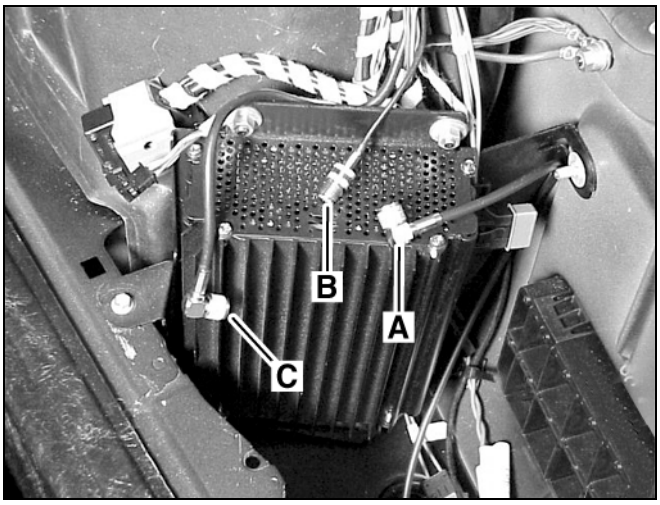


Figure 6 P82.70-3414-01

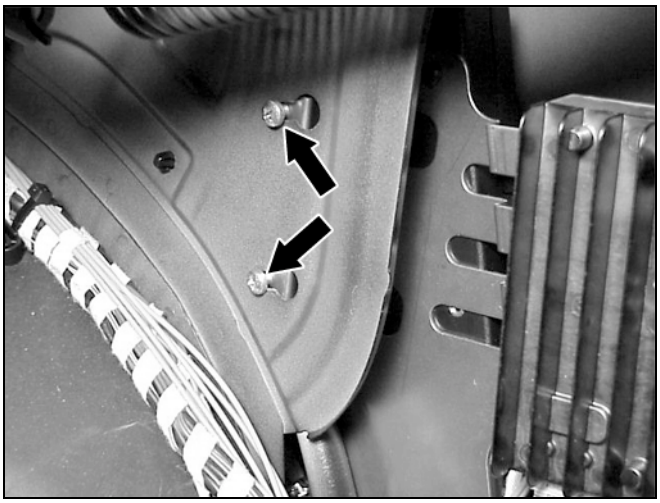


Figure 7 P82.70-3415-01

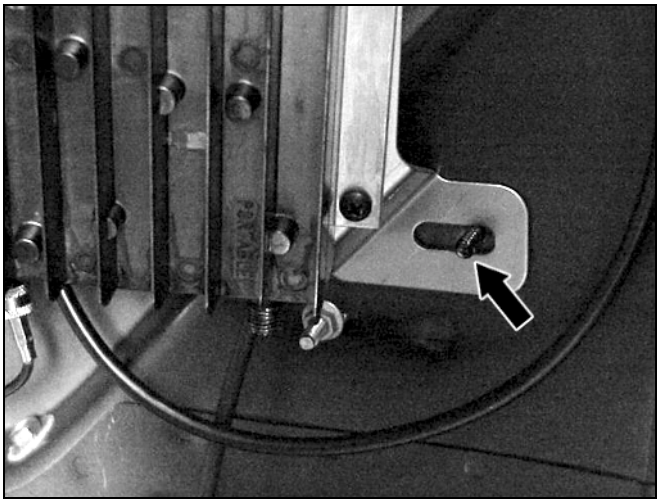


Figure 8 P82.70-3417-01

F. Installing the handset and cradle (V60)

1. Open the lower storage compartment of the center console and remove the three screws from the upper compartment underside securing the Tele Aid button assembly false floor (Figure 9).

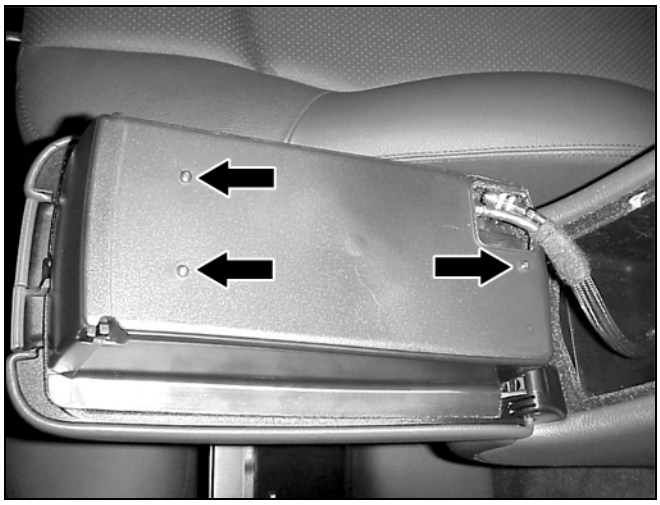


Figure 9 P82.70-3418-01

2. Lift out the false floor and disconnect the Tele Aid button connector and RJ-45 connector receptacle from the Tele Aid button assembly (Figure 10).

Figure 10 P82.70-3419-01

3. Place the V60 template atop of the false floor, making sure to align the template bottom and right edges with those of the false floor (Figure 11).
4. Drill two 5-mm holes where indicated on the template.

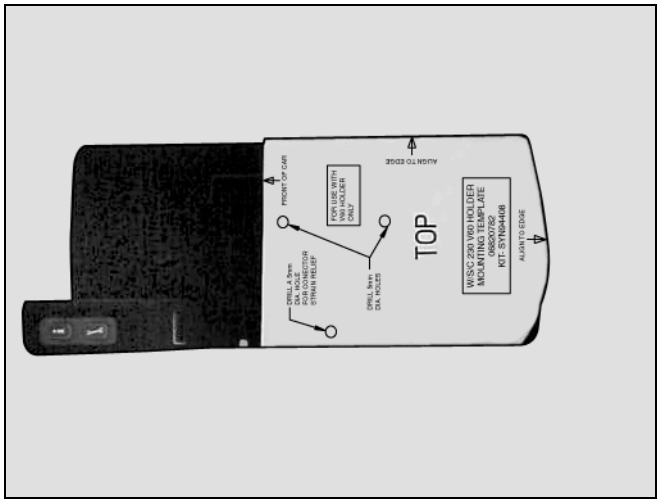


Figure 11 P82.70-4476-01

5. Drill out the two notches from the underside of the false floor using a 4.5-mm drill bit (A, Figure 12).
6. Mount the holder to the false floor, with two screws included in the kit, from the underside of the false floor (B, Figure 12).
7. Reconnect the Tele Aid button connector and reinstall the RJ-45 receptacle.
8. Feed the coaxial cable coming from the center console through the rear opening of the center console compartment and connect the coaxial cable to the coil-cord.
9. Connect the coil-cord RJ-45 to the center console RJ-45 receptacle.

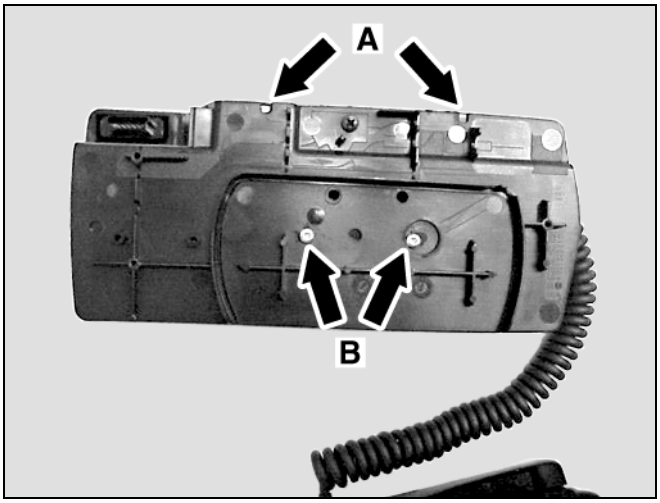


Figure 12 P82.70-4477-01

10. Route the cables through the channels according to the schematic on the false floor underside (Figure 13).
11. Place the coil-cord through the notches drilled into the false floor (A, Figure 12).
12. Reinstall and secure the false floor with the three previously removed screws.

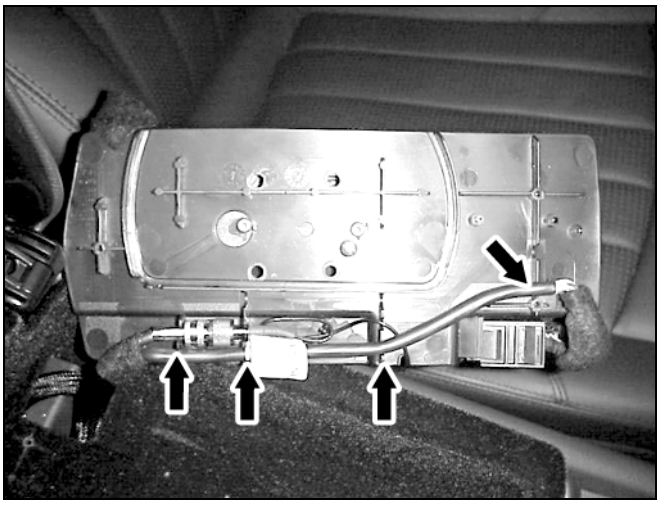


Figure 13 P82.70-4478-01

13. Install the battery insert plate marked “FOR USE WITH SLIM BATTERY” when using the slim battery (500 mAh) with the telephone (Figure 14).

    Note: The embossed text on the installed battery insert plate must face up as in Figure 14.

Figure 14 P82.70-4064-01

14. Install the battery insert plate marked “FOR USE WITH HIGH PERFORMANCE BATTERY” when using the high performance battery (800 mAh) with the telephone (Figure 15).

    Note: The embossed text on the installed battery insert plate must face up as in Figure 15.

Figure 15 P82.70-4065-01

15. Remove the battery insert plate when using the extra capacity battery (1100 mAh) with the telephone (Figure 16).

    Note: No battery insert plate is installed as in Figure 16.

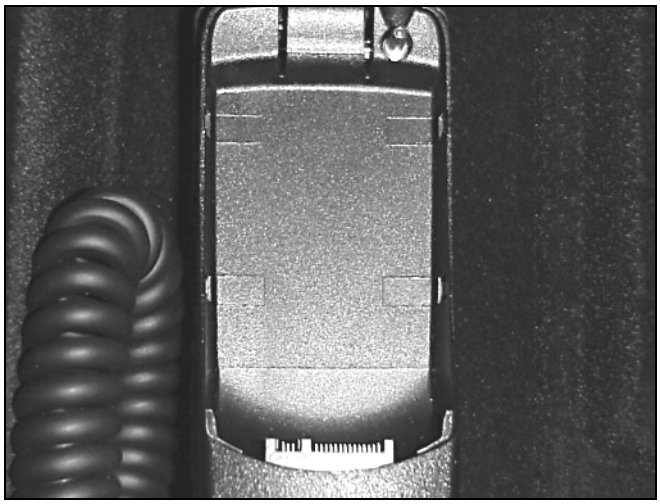


Figure 16 P82.70-4284-01

16. Place the cradle in the holder and the telephone in the cradle (Figure 17).

Figure 17 P82.70-4479-01

G. Version coding and diagnostic testing

1. Connect Star Diagnosis (SDS) to the vehicle and perform the version coding outlined below.
2. Using path:

   Control units / Information and communication / D2B / Control unit adaptations / Read coding & change if necessary / Specified configuration of D2B components

   Set the D2B ring configuration to match the diagram on page 10.

   Note: The diagram on page 10 is an example of a D2B ring configuration including all components. Some installations will not include all components shown in the example. If a component is not present, connect the preceding component to the one following the component not present. Only vehicles with COMAND include the Tele Aid module in the D2B ring. Refer to S-B-82.70/135B, "D2B Fiber Optic Configuration and Version Coding" for proper handling and configuration of D2B fibers.

3. For enlarged telephone functionality on COMAND, use path:

   Control units / Information and communication / D2B / Control unit adaptations / Read coding and change if necessary / Configuration of components (Not D2B)

   Double-click "Telephone with enlarged functionality." Then change the setting to "Installed" and transfer the coding to the control module.
4. Return to the "D2B Functions" menu. Using path:

   Actual values / D2B Actual configuration

   Verify the version coding input above (specified value) matches the actual configuration performed during installation (actual values). If a difference exists, the ring has been improperly configured and must be disassembled and corrected.
5. For telephone functionality on the instrument cluster display, use path:

   Control units / Information and communication / ICM / Control unit adaptations / Version coding / Optional equipment

   Set Cellular Telephone to "PRESENT."

   NOTICE

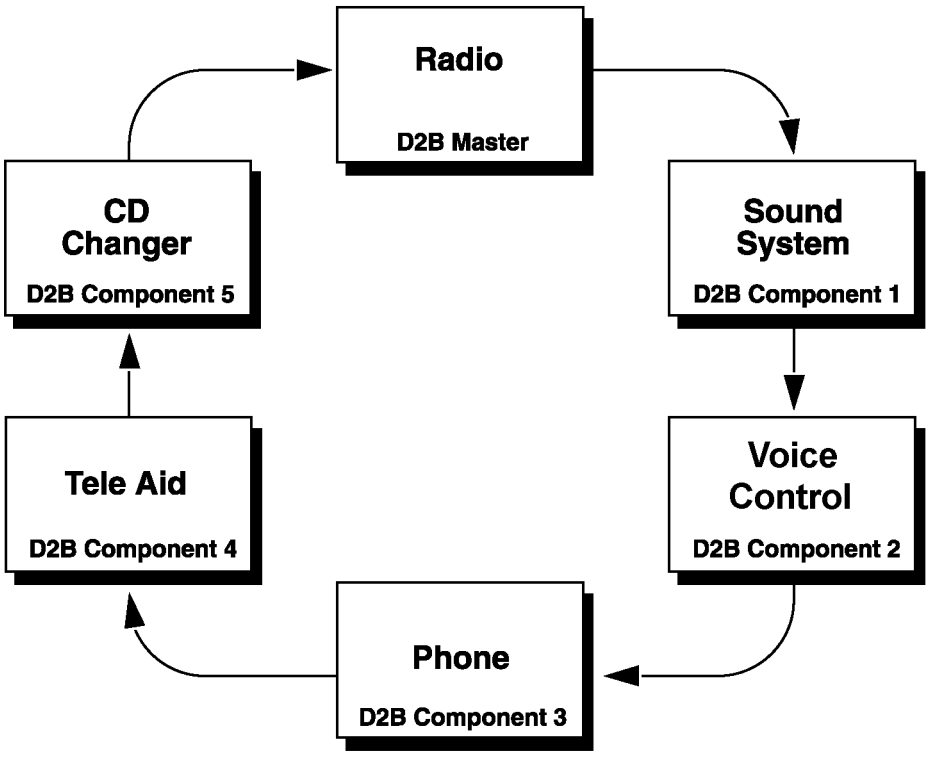
   DO NOT alter the configuration in step 2 to match the vehicle configuration. Failure to have the configuration set as indicated in the diagram on page 10 will result in erroneous system operation and/or intermittent malfunctioning of some or all components.

6. Check the DTC memory of all installed components and the head unit. Any present DTC(s) should be investigated, the source identified, corrected, and the DTC memory cleared.

   Note: Powering up the newly installed system prior to the above described version coding will set D2B ring configuration errors. These errors may be ignored during the initial DTC check. If, after clearing the DTC(s), they return in the next step, a configuration error that must be located and corrected is present.

7. Confirm that no new DTC(s) have been set in the D2B system group.

D2B Ring Configuration



H. Final assembly and function test

1. Reinstall the removed panels and trunk mat.
2. Program the telephone per S-B-82.70/179A, “V60 Portable Telephone Programming.”
3. Verify proper telephone and voice control—as applicable to installed equipment—operation per the following checklist:

Telephone

- ❑ Handset dialing is functioning
- ❑ Head unit dialing is functioning
- ❑ Handset incoming/outgoing call audio is clear
- ❑ Hands-free incoming/outgoing audio is clear
- ❑ Automatic memory download is functioning (It may be necessary to store a test number in the telephone handset for this feature to operate; stored numbers should be available for dialing from the head unit after automatic download.)

Voice Control

- ❑ System beeps after the PTT lever is pressed
- ❑ System responds to spoken commands (e.g. “Help”)
- ❑ System is able to control radio and telephone

Parts Information

Qty.	Part Name	Part Number/Exchange
	Vehicle core installation kit	**Q 682 0707**
1	PSE “Auto Sense” (SYN 9266B)	Q 682 0845
1	Standard install hardware kit	Q 682 0462
1	Dual band linear compensator	Q 682 0657
	C-Class Sedan vehicle completer kit	**Q 682 0712**
1	Cable, PSE module/linear compensator	Q 682 0468
1	Bracket, PSE module/linear compensator/antenna switch	Q 682 0653
1	Antenna switch (dual band)	Q 682 0652
1	Template, V60 holder install	Q 682 0762
	Optional voice control kit	**Q 682 0836**
1	Voice control module	Q 682 0650
1	Bracket, VCM	Q 682 0654
1	PTT lever	Q 682 0837
1	Manual, Voice Control System	S-2765-000
	V60 cradle short-cord kit	**Q 682 0724**
1	V60 cradle with short coil-cord	Q 682 0770
1	V60 holder	Q 682 0768
1	Battery insert	Q 682 0811
1	In-vehicle manual	S-2790-02A
	Separate line item	
1	Right liner panel, trunk	A 203 690 08 41 9C 86
	Relays and fuses referenced on page 2	
1	N10/1/kP relay	A 002 542 13 19
1	N10/2kF relay	A 002 542 13 19
1	N10/1f44, 5 amp fuse	N 072581 000302
1	N10/2f13, 5 amp fuse	N 072581 000302
1	N10/2f16, 7.5 amp fuse	N 072581 000303
1	F34f40, 7.5 amp fuse	N 072581 000303