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Supersedes: P-SI-82.64/121  
Group: 82

**Revision:** *Part number corrections (boldfaced), page 11 / elimination of non-applicable step 2 bullet-point and step 3 of Section H, page 9*

**SUBJECT:** MODEL 210.065/070/074/082/083 (MY 2000)  
VOICE ACTIVATED CELLULAR TELEPHONE/CD CHANGER INSTALLATION

 **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 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:**

- CD changer fiber is installed in the vehicle from the factory.
- Vehicle is configured from the factory for CD changer only.
- Telephone and voice recognition fibers are daisy chain links that are included in the installation kit for those accessories.
- Straight D2B connectors are utilized for the CD and voice recognition module and the angled connector is used for the telephone PSE.

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.
2. Unpack and compare the installation kit(s) contents against the Parts Information list on pages 10 and 11 of this bulletin.
3. Place the operating guides/client accessories (i.e. chargers, cassette tapes, CD's, etc.) in the glove box or appropriate storage compartment.
4. Remove the trunk mat.
5. Remove the left rear trunk liner if installing the telephone, otherwise skip to step 6.
6. Determine the number and sequence of the D2B components to be installed, then locate/configure all fiber optic cables for the configuration.

**Note:** Refer to S-SI-82.64/123, *D2B Fiber Optic Configuration and Version Coding* for proper handling and configuration of D2B fibers.

7. Proceed to:
  - **Section B** for telephone installation.
  - **Section G** for CD changer installation.

## B. Mounting the Telephone Linear Compensator/Portable Support Electronics Module (PSE)

1. Remove the left trunk liner-panel.
2. Locate the:
  - 25-pole **D**-connector
  - coaxial cable from the center console
  - fiber optic cables
  - integrated antenna cable (passes through the fender grommet)
  - 15-pole **D**-connector (if installing the Voice Recognition System)
3. Mount the PSE module to the mounting plate with three (3) M4 x 6 machine screws. The 25-pole connector should face right and the fiber optic connector on top when installed (Figure 1).
4. Mount the linear compensator to the mounting plate with three (3) M4 x 8 machine screws. The green 14-pole connector should be on the same side as the 25-pole PSE connector (Figure 1).
5. Connect the 25-pole PSE **D**-connector labeled **PSE** to the PSE module and the green 14-pole connector to the linear compensator. (Fold the excess cable between the PSE module and linear compensator and use 2 wire ties to secure them to the larger cable (Figure 1).  
**Note:** Be sure no stress is placed on the wires leading to the linear compensator.
6. Proceed to:
  - **Section C** if installing the optional Voice Recognition System
  - **Section D** if NOT installing the optional Voice Recognition System



Figure 1

P82.64-2200-01

### C. Mounting the Telephone Voice Recognition Module (VRM)

1. Fasten the VRM to the PSE module/linear compensator bracket with two (2) M4 x 8 machine screws (Figure 2).



Figure 2

P82.70-2694-01

### D. Installation of Support Electronics

1. Connect the angled mini-UHF connector from the antenna cable to the jack on the linear compensator labeled **ANTENNA**.  
**Note:** DO NOT reverse the coaxial connections.
2. Remove the protective caps from the D2B fiber optics and connect them to their respective receptacles on the PSE module and VRM (if so equipped). The D2B connector on the PSE module should be on top when installed (Figure 3).
3. Connect the 25-pole vehicle harness connector to the 25-pole Y-cable from the linear compensator and PSE module.
4. Mount the bracket assembly to the wheel well by placing the two lower bracket feet onto the two wheel well studs and the upper bracket stud mounts through the pre-punched hole in the hinge reinforcement panel. Place two (2) plastic nuts over the studs. Secure the upper mount with an M6 nut. Tighten all three fasteners.



Figure 3

P82.64-2201-01

**Note:** Be sure to route the fiber optics behind the bracket assembly between the bracket and sound deadening material (Figure 3). Be sure there are no kinks or pinches present and the fiber optics move freely. Route the main 25-pole harness along the left of the bracket assembly and tie it to the left bracket leg (arrow, Figure 3).

5. Connect the coaxial cable from the center console to the linear compensator jack labeled **PORTABLE**.

**Note:** DO NOT reverse the coaxial connections.

6. Reinstall the trunk liner.

#### **E. Installation of Portable Phone Cradle and Support Cable**

1. Open the main armrest compartment and remove the Tele Aid button assembly by removing the screw on the left, then lifting the assembly up and out (Figure 4).
2. Drill (or punch) out the recesses on the underside of the tray with a 4-mm drill bit.



**Figure 4**

P82.70-2695-01

3. Fasten the coil cord to the cradle with a #8 x 1/2-inch Philips tapping screw (Figure 5).
4. Insert four (4) M4 x 8 machine screws from the bottom of the armrest into the threaded inserts in the lower half of the cradle and fasten.



**Figure 5**

P82.70-2696-01

5. Route the coil cord through the opening in the back of the console tray and replace the Tele Aid button assembly. Replace the screw securing the button assembly.

**Note:** Be sure to route the telephone cord through the notch in the Tele Aid button assembly (Figure 6).



Figure 6

P82.70-2697-01

6. Connect the battery to the telephone.
7. Connect the telephone to the coil cord and place it in the cradle (Figure 7).
8. Open the rear cover in the main compartment and remove Tele Aid button harness from the channel.
9. Connect the coil cord 10-pole RJ-45 connector to the fixed connector in the floor.
10. Connect the mini-UHF connectors.



Figure 7

P82.70-2698-01

11. Route the coil cord along the recess so it exits to the left of the opening.
12. Place the coil cord strain relief on the side (viewed looking at the rear of the console) of the cord restraining tang so the coil cord is locked into place (Figure 8).
13. Place the Tele Aid button coil cord into the restraining tang so the first coil is in the tang, and then route the cable through the channel (Figure 8). Close the access cover with the cables secured inside.
14. Proceed to:
  - **Section F** if installing the VRM
  - **Section G** if installing the CD changer
  - **Section H** if NOT installing the CD changer.

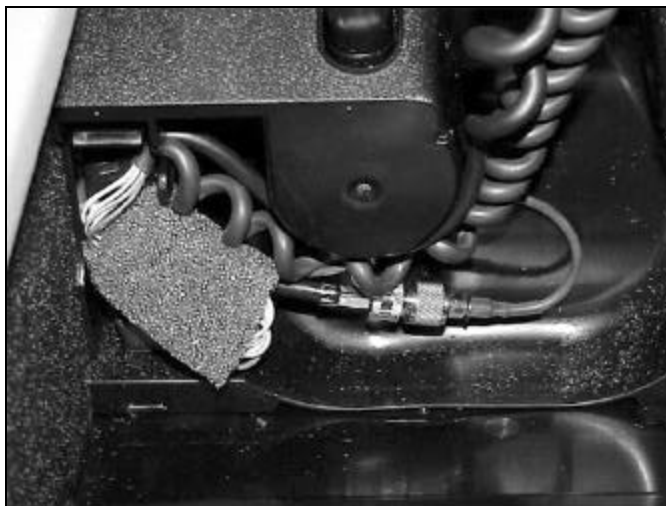


Figure 8

P82.70-2699-01

## F. Installation of Voice Recognition Module Optional Push-To-Talk (PTT) Lever

1. Remove the plug covering the PTT mounting hole (Figure 9).



Figure 9

P82.70-2700-01

2. Install the PTT lever by fully inserting it pointing toward the roof, then rotating down until it 'clicks' into place.
3. Apply a slight upward rotating pressure on the lever to verify that it is locked into place (Figure 10).
4. Proceed to:
  - **Section G** if installing the CD changer.
  - **Section H** if NOT installing the CD changer.



Figure 10

P82.70-2701-01

## G. Installation of CD Changer

1. Remove the three (3) transport screws from the CD changer and install them into the holding locations in the back of the CD changer (Figure 11).
2. Set the suspension spring configuration to **V** (vertical).
3. Affix the three (3) adhesive dust covers, contained in the IDENT-KARTE bag, over the transport screw holes in the bottom of the CD changer.
4. Place the IDENT-KARTE in the owner's documentation packet.

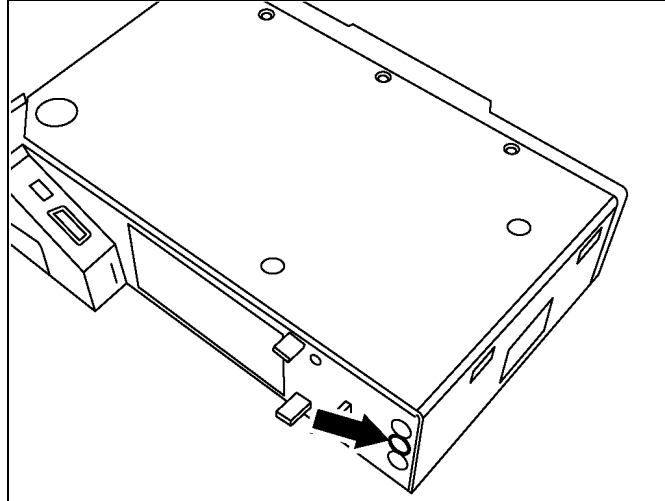


Figure 11

P82.64-2062-01

5. Locate the 3-pole electrical connector and fiber optics in the wheel well.
6. Mount the CD changer to the mounting bracket with four (4) M4 x 5 machine screws (Figure 12).
7. Install the cover by engaging the plastic hinges over the flange on the top edge of the bracket, and then rolling the hinges toward the back to lock.
8. Connect the 3-pole electrical and fiber optic connectors to the back of the CD changer.
9. Position the CD changer so that the tabs on the mounting bracket align over the pre-punched factory mounting holes.
10. Secure the top mounts with the provided screws (Figure 13).

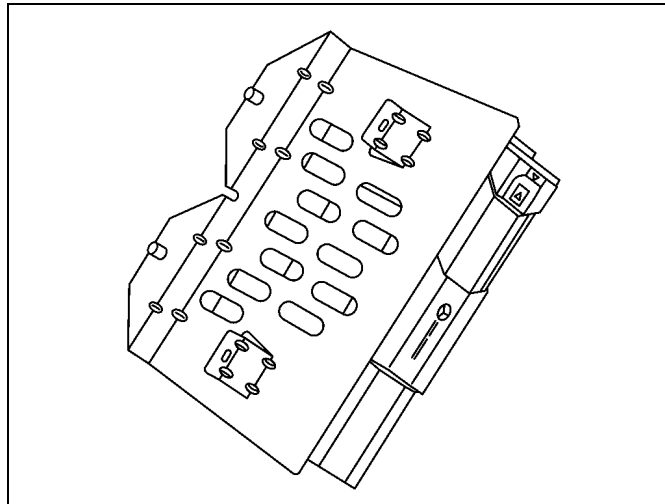


Figure 12

P82.64-2206-01

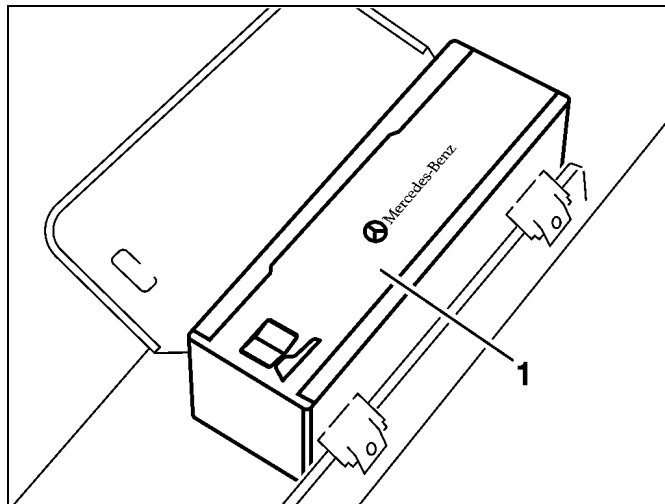


Figure 13

P82.64-2063-01

## H. Version Coding and Diagnostic Testing

1. Connect StarDiagnosis (DAS) to the vehicle and perform the version coding outlined below:
  - Skip to step 4 if the telephone is not installed.
2. Using path: **Control units/Information and communication/ICM/Control unit adaptations/Standard version coding/Optional equipment**, set CTEL to **Exists**
3. Using path: **Control units/Information and communication/D2B/Control unit adaptations/D2B Nominal configuration**, set the D2B ring configuration per the following table:

	CD Changer, Telephone and Voice Recognition	CD Changer and Telephone	CD Changer Only	Telephone Only	Telephone with Voice Recognition
D2B Master	Radio	Radio	Radio	Radio	Radio
D2B Component 1	CD Changer	CD Changer	CD Changer	Cellular Telephone 1	Cellular Telephone 1
D2B Component 2	Cellular Telephone 1	Cellular Telephone 1	Not Present	Not Present	Voice Activation
D2B Component 3	Voice Activation	Not Present	Not Present	Not Present	Not Present

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 you **MUST** disassemble in reverse, diagnose and correct the error.



### NOTICE!

**DO NOT alter the configuration in step H4 to match the vehicle configuration. Failure to have the configuration set as indicated in the table above will result in erroneous system operation and/or intermittent functioning of some or all components.**

5. Check the DTC memory of all installed components and the head unit. Any present DTC(s) should be investigated and the source identified. Once identified, the source of the DTC(s) should be 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 is present and must be located and corrected.

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

## I. Final Assembly and Function Test

1. Replace the trunk mat.
2. Program the telephone per S-SI-82.70/124, *StarTAC Portable Telephone Programming*.
3. Verify proper CD changer, telephone, and Voice Activation System (as applicable to equipment installed) operation per the following checklist:

### CD Changer

- Disk 1~6 load and unload properly
- Magazine load and eject operate smoothly
- CD sliding door opens/closes properly
- Audio is clear and crisp
- First and last track on selected CD can be accessed

### 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 (may be necessary to store a test number in the telephone handset for this feature to operate). After automatic download, stored numbers should be available for dialing from the head unit.
- Verify that the telephone mode is available in the ICM
- Verify operation of the steering wheel controls

### Voice Recognition

- Verify that the VRM can be controlled by the PTT lever on the column
- Verify that the spoken instructions are functioning with a high recognition rate
- Verify that the VRM can control the telephone

### Parts Information (CD Changer)

Qty.	Part Name	Part Number/Exchange
	<b>CD Changer Main Unit</b>	002 820 79 89/002 820 79 89 90
1	ID Card	
1	CD magazine	002 820 62 89
1 pair	Orientation covers (installed)	Q 6 82 0179
4	Mounting screws	
	<b>CD Installation Kit</b>	Q 6 82 0409
1	Main bracket	
1	Hardware package	
1	Cover	

**Parts Information (Portable Telephone)**

Qty.	Part Name	Part Number/Exchange
<b>StarTac Portable Kit - CDMA</b>		
1	Portable handset*	
1	Battery	Q 6 82 0483
1	Belt clip	Q 6 82 0484
1	Wall charger	Q 6 82 0485
1	Operation guide	S 2729 099

**StarTac Portable Kit – TDMA**

1	Portable handset*	
1	Battery	Q 6 82 0483
1	Belt clip	Q 6 82 0484
1	Wall charger	Q 6 82 0485
1	Operation guide	<b>S 2727 099</b>

\*Handset type depends on client's selection of cellular carrier and operating region. Contact the Technical Assistance Hotline @ 1-877-MOT-8600 (1-877-668-8600) for assistance in determining the correct portable handset.

**Parts Information (Telephone Installation Kit)**

Qty.	Part Name	Part Number/Exchange
<b>StarTac Installation Kit</b>		Q 6 82 0442
1	Portable support electronics module	Q 6 82 0460 / Q 6 82 9460
1	Linear compensator	<b>Q 6 82 0525 / Q 6 82 9525</b>
1	Cradle	Q 6 82 0459
1	Portable coil cord	Q 6 82 0465
1	D2B optical cable	Q 6 82 0466
1	Linear compensator Y-cable	Q 6 82 0468
1	PSE/compensator bracket	Q 6 82 0475
1	Hardware kit	Q 6 82 0462

**Parts Information (Voice Recognition System)**

Qty.	Part Name	Part Number/Exchange
<b>Voice Recognition Module Kit</b>		Q 6 82 0449
1	Voice recognition module	Q 6 82 0422
1	D2B optical cable	Q 6 82 0467
1	PTT lever	Q 6 82 0479
1	Operation guide	P 271 0000
1	Tutorial cassette tape	P 270 3098