

Date: March 2000
Order No.: P-SI-82.64/122A
Supersedes: P-SI-82.64/122
Group: 82

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

SUBJECT: MODEL 210.265/282 (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. Open and remove the right rear compartment cover.
6. Remove the three (3) screws securing the sound system bracket, disconnect the sound system amplifier connector and remove the assembly.
7. 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 D2B fiber handling procedures.

8. 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. Locate the following (Figure 1):
 - 25-pole **D**-connector harness
 - 15-pole **D**-connector harness (if installing the VRM)
 - antenna coaxial cable from the center armrest
 - 4-pole antenna switch connector
 - Tele Aid/bumper antenna coaxial coupling
2. Remove the amplifier from its mounting bracket.



Figure 1

P82.70-2705-01

3. Fasten the linear compensator to the bracket with three (3) M4 x 10 machine screws and nuts (Figure 2).
4. Connect the 25-pole Y-cable connector labeled **PSE** to the PSE module.
5. Fasten the PSE module to the amplifier bracket with three (3) M4 x 6 machine screws (Figure 2).
6. Connect the 14-pole green connector on the Y-cable to the linear compensator and dress the excess cable.
7. Mount the antenna switch to the amplifier bracket with two (2) M3-1/2 x 8-mm self-tapping Torx screws (Figure 2).
8. Connect the antenna switch lead labeled **Booster** to the linear compensator jack labeled **ANTENNA**.

Note: DO NOT reverse the coaxial cable connections.

9. Reattach the amplifier to the bracket.
10. Locate the Tele Aid/bumper antenna coupling and separate.
11. Route the two coaxial cables separated in step 10 and the antenna switch 4-pole connector to the cabin side of the fuel filler neck (Figure 3).
12. Connect the male side of the Tele Aid/bumper antenna coupling separated in step 10 to the antenna switch jack labeled **ANTENNA**.
13. Connect the female side of the opened coupling to the antenna switch cable labeled **EMERGENCY**.
14. Connect the 4-pole antenna switch connector to the antenna switch.
15. Proceed to:
 - **Section C** if installing the optional Voice Recognition System
 - **Section D** if NOT installing the optional Voice Recognition System

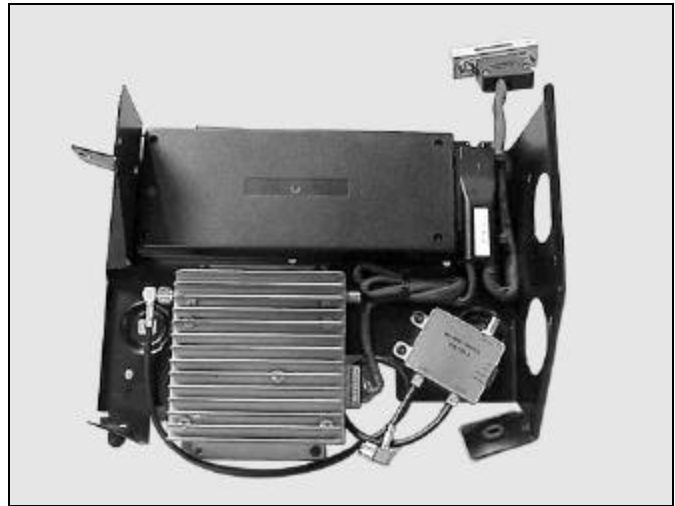


Figure 2

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Figure 3

P82.70-2707-01

C. Mounting of Telephone Voice Recognition Module (VRM)

1. Fasten the VRM to the bracket with two (2) M4 x 8 machine screws (Figure 4).



Figure 4

P82.70-2708-01

2. Mount the completed VRM assembly to the main bracket assembly with two (2) M4 x 8 machine screws (Figure 5).
3. Connect the 15-pole D-connector to the VRM.



Figure 5

P82.70-2934-01

D. Completion of Support Electronics Installation

1. Remove the protective caps and connect the angled fiber optic cable connector to the PSE module receptacle.
Note: Carefully route the fiber optic cables between the bracket and side of the components.
2. Remove the protective cap and connect the straight fiber optic cable connector to the VRM receptacle.
3. Reconnect the harness connector to the sound system amplifier.
4. If NOT installing the CD changer, reinstall the amplifier bracket assembly and fasten with the three (3) previously removed screws. Replace the rear liner panel. (If installing a CD changer, final assembly will be called out in Section G.)

Note: Be sure the fiber optics is carefully routed around the bracket assembly, there are no pinches/kinks and the optics move freely.

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 6).
2. Drill (or punch) out the two small recesses on the underside of the tray with a 4-mm drill bit.



Figure 6

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3. Fasten the coil cord to the cradle with a #8 x 1/2-inch Philips tapping screw (Figure 7).
4. Insert the 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 7

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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 (Figure 8).

Note: Be sure to route the telephone cord through the notch provided in the Tele Aid button assembly (Arrow, Figure 8).



Figure 8

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 9).
8. Open the rear cover in the main compartment and remove the 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 together.



Figure 9

P82.70-2698-01

11. Route the coil cord along the recess so it exits on the left of the opening.
12. Place the coil cord strain relief on the left (viewed looking at the rear of the console) of the cord restraining tang so the coil cord is locked into place (Figure 10).
13. Place the Tele Aid button coil cord into the restraining tang so the first coil is in the tang, then route the cable through the channel (Figure 10). Close the access cover with the cables securely retained 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

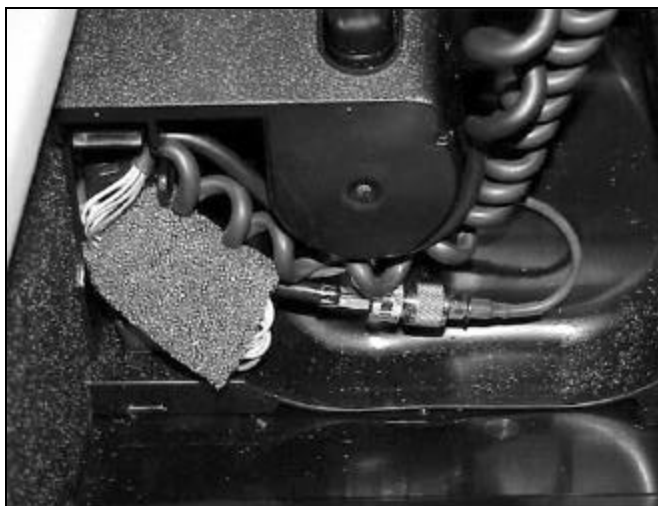


Figure 10

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F. Installation of Optional Voice Recognition Moduel Push-to-Talk (PTT) Lever

1. Remove the plug covering the PTT mounting hole (Figure 11).



Figure 11

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 12

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.
2. Set the suspension spring configuration to **V** (vertical).
3. Affix the three (3) adhesive dust covers from the IDENT-KARTE bag over the transport screw holes in the bottom of the CD changer.
4. Place the IDENT-KARTE in the owners documentation packet.
5. Remove the perforated section of the panel liner to provide space for the CD changer chassis (Figure 13).
6. Locate the 3-pole electrical connector and optics in the wheel well.
7. Attach the CD changer to the amplifier mounting bracket with four (4) M4 x 5 machine screws (Figure 14 – w/o telephone), (Figure 15 – w/ telephone).
8. Connect the 3-pole electrical and fiber optics connectors to the back of the CD changer.
9. Reinstall the amplifier bracket assembly with the three (3) previously removed screws.
10. Replace the rear liner panel.
11. Proceed to **Section H**.

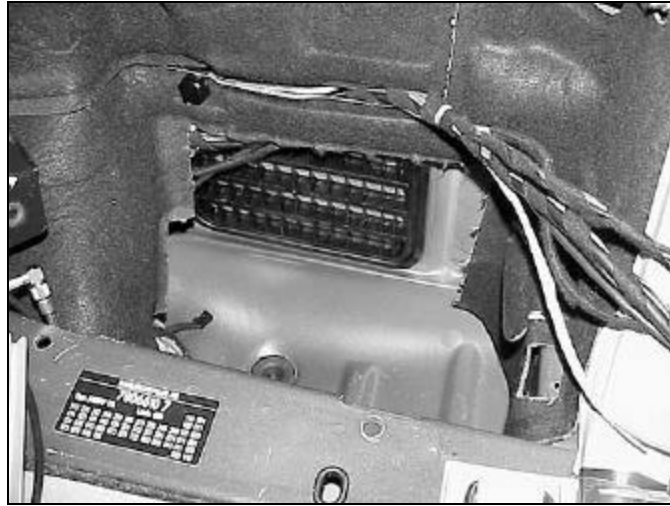


Figure 13

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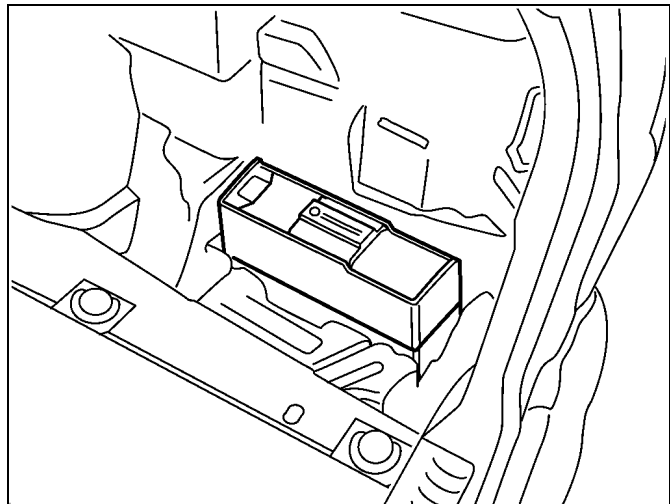


Figure 14

P82.64-2204-01



Figure 15

P82.64-2207-01

H. Version Coding via StarDiagnosis and Diagnostic Testing

1. Connect StarDiagnosis (DAS) to the vehicle and perform the version coding outlined below:
 - Skip to step 3, 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 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. Correct the DTC(s) source and clear the DTC memory.

Note: Powering up the newly installed system prior to the version coding performed above will set D2B ring configuration errors. These errors may be ignored during the initial DTC check. If, after clearing DTC(s), they return in the next step, a configuration error that must be located and corrected is present.
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
	CD Changer Main Unit	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	
1	Mounting bracket ¹⁾	210 820 12 14
1	Mounting screw ¹⁾	914 127 004217
2	Mounting screws ¹⁾	914 129 005000

¹⁾Required only if the vehicle does not have Code 810 (Sound System)

Parts Information (Portable Telephone)

Qty.	Part Name	Part Number/Exchange
StarTac Portable Kit - CDMA		
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	S 2727 099

*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
StarTac Installation Kit		Q 6 82 0443
1	Portable support electronics module	Q 6 82 0460 / Q 6 82 9460
1	Linear compensator	Q 6 82 0525 / Q 6 82 9525
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	Antenna switch	Q 6 82 0430
1	Hardware kit	Q 6 82 0462
1	Mounting bracket ¹⁾	
1	Mounting screw ¹⁾	
2	Mounting screws ¹⁾	

¹⁾Required only if the vehicle does not have Code 810 (Sound System)

Parts Information (Voice Recognition System)

Qty.	Part Name	Part Number/Exchange
Voice Recognition Module Kit		Q 6 82 0450
1	Voice recognition module	Q 6 82 0422
1	Voice recognition module bracket	Q 6 82 0472
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

