- 3. Disconnect the negative battery cable.
- 4. Remove the radio trim panel (1988-90)
- 5. Remove the four trim screws securing the radio to the instrument panel. (as necessary).
 - 6. Install the radio removing tools (1990–95)
- 7. Apply a slight spreading force on the tools and pull the radio from the dash.
- 8. Disconnect the power, antenna and speaker leads and remove the radio.

To install:

- 9. Connect the power lead, antenna, and speaker leads.
- 10. Slide the radio into the dash ensuring that the rear bracket is engaged on the lower support rail
- 11. Push the radio inward until the retaining clips are fully engaged (1990–95).
- 12. Secure the radio by installing the trim screws to the instrument panel (1988–90).
 - 13. Install the radio trim panel (1988–90),

Town Car 1995-00

The luxury sound system is standard on Town Car. This audio system uses a two-chassis design (distributed radio system).

- The luxury analog cassette radio chassis consists of a housing, a cassette player, a bezel assembly, a large graphic vacuum fluorescent display and electronic control switches and circuitry. The front chassis has selective lighting.
- The remote chassis unit is mounted below the rear package tray and consists of AM and FM tuners, signal processing hardware, and a fourchannel power amplifier.
- The front control unit and the remote chassis unit communicate via a Society of Automotive Engineers (SAE) J1708-based audio control protocol.
 Audio control protocol will also be used to control the digital audio compact disc player and handle commands from the mobile phone.
- Audio signal inputs to the remote chassis unit are analog. The analog signal from the cassette is two channels (left and right) of differential signal with twisted and shielded wiring. Inputs for cellular telephone and CD player functions use twisted and shielded wiring.
- Outputs from the rear chassis unit are bridge outputs. The power amplifiers are distortion-limited to prevent severe clipping. The four-channel amplifier is fed with full-range signals.
- The remote chassis unit will process analog signals from the tuner, tape audio, CD player audio and mobile phone audio.

The front control unit contains the input bezel assembly, the output display and the cassette player. The bezel is backlit with a single electroluminescent lamp for selective back-lighting.

- A five-digit vacuum fluorescent display will be used. The display will indicate the station frequency, band (AM and FM), volume setting, cassette player, CD changer and cellular telephone information.
- The ACP and cassette player signals use shielded wire. Pins are reserved in the front control unit to terminate the drain wire of the shields.
- The front control unit holds a switching power supply which generates sufficient voltage to illuminate the EL panel.
- The microcontroller in the front control unit monitors the switch settings, handles commands to ht display and performs ACP network tasks.

The remote chassis unit consists of three major sections

- The AM/FM tuner processes the radio frequency signal and produces the left and right analog audio signals.
- The microprocessor control and audio processor board controls the remote chassis unit and processes all of the audio input signals from the front control unit, tuner and cellular phone.
- The 4 channel 20-Watt audio power amplifier and RCU power supply board.

All sections are contained in a single aluminum heat sink casting.

Antenna—Town Car

- · Antennas are concealed on all vehicles.
- The diversity antenna system uses two concealed antennas
- The AM antenna consists of the rear window defroster grid on the interior of the rear window.
- The FM antenna consists of conductive tracing on the rear window above the rear window defroster grid.
- Active and wide-band antenna elements are used.
- A multipath circuit and the microprocessor monitor FM signal level.
- The antenna-switching scheme is controlled by the microprocessor.

Mark VII 1988-90

- 1. Disconnect the negative battery cable.
- ⇒If the gear shift on console interferes with removal and installation, set parking brake and place in 1 or 2 for automatic transmission.
 - 2. Remove the center instrument trim panel...
- 3. Remove the 4 screws retaining the radio and mounting bracket to the instrument panel.
- 4. Pull the radio towards the front seat to disengage it from the lower bracket.
- 5. Pull the radio out slowly Disconnect the radio and antenna connections
 - 6. Remove the radio.
 - 7. Installation is the reverse of removal...

To install:

- 8. Attach the antenna and wiring to back of the
- 9. Insert the radio into the dash, tighten the mounting screws to the bracket to retain the unit.
 - 10. Connect the negative battery cable
 - 11. Test the unit for proper operation
- 12. If the system works well, install the center trim panel.

Mark VII 1991-92

- A special radio removal tool, must be used in order to remove radio components with out damage to unit.
 - 1. Disconnect negative battery cable.
- Insert two radio removal tools into the radio face plates holes, until tension of spring clips is felt.
- 3. Flex outward on both sides simultaneously and pull the radio out.
- 4. Disconnect wiring connectors and antenna cable.

To install:

5. Attach the antenna and wiring to back of the unit.

- 6. Insert the radio into the dash, then push on the radio until the clips "click".
- 7. Connect the negative battery cable. Test the unit for proper operation.

Mark VIII 1993-98

The Mark VIII has two systems available, the premium sound system and the JBL $^{\circ}$.

The premium sound system, which is standard on Mark VIII, consists of the following fea-

- · Premium analog cassette radio chassis.
- Four radio speakers (two premium front door radio speakers and two premium quarter trim panel mounted radio speakers.
- Separate signal return wiring to each radio speaker
- A premium radio amplifier that is in operation and is part of the circuit at all times.

The JBL® sound system consists of the following features.

- Premium analog cassette radio chassis.
- Four premium radio speakers in the doors and quarter trim panels.
- Four additional JBL® radio speakers mounted in the doors and quarter trim panels.
 - JBL®audiophile radio amplifier.
 - An optional radio chassis is available.
- An optional luggage compartment-mounted digital audio compact disc player is available with the standard premium or JBL®sound systems.
 - 1. Disconnect the negative battery cable.
- Install the radio-removing tool into the radio faceplate far enough to engage the retaining clips.
- Apply a slight spreading force on the tools and pull the radio chassis out of the instrument panel.
- 4. Dilsconnect the wiring connectors and remove the radio chassis.

To install:

- 5. Connect the wiring connectors to the radio chassis.
- 6. Slide the radio chassis into the instrument panel. Making sure it is squarely inserted.
- 7. Push the radio chassis inward until the retaining clips are fully engaged.
 - 8. Connect the negative battery cable.

Speakers

REMOVAL & INSTALLATION

Front-Town Car

1988-94

See Figure 30

- 1. Disconnect the negative battery cable.
- 2. Remove the instrument panel pad as follows:
 - a. Remove the 2 screws attaching the pad to the instrument panel at each defroster opening.
 Be careful not to drop the screws into the defroster openings.
- b. Remove the one screw attaching each outboard end of the pad to the instrument panel.
- c. Remove the row of screws attaching the lower edge of the pad to the instrument panel. Pull