

AUDIO SYSTEMS

GROUP 15 (17000 & 18000)

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SECTION 15-00 Audio Systems—Service

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VEHICLE APPLICATION

Capri.

DESCRIPTION AND OPERATION

The electronic AM/FM stereo radio includes advanced features; an optional cassette tape player with Dolby® noise reduction, and an optional Premium Sound Amplifier.

Each of these radios is electronically tuned.

Premium Sound

The premium sound system is available with all stereo radios. The premium sound system contains a four-channel stereo amplifier.

Antenna

The antenna is mounted on the right front fender and is a solid, one piece flexible unit. The base is secured to the fender with three screws.

DESCRIPTION AND OPERATION (Continued)**Speakers**

The front speakers are installed in the front lower sides of the door panels, and diffuse the sound by pointing in a downward direction. The rear speakers point forward.

All vehicles are equipped with premium sound speakers. Premium sound speakers are printed with "6 ohms" on the magnet.

Radio Reception**Tuning**

Fine tuning is not required for the electronic radio.

The electronic radio automatically tunes to the center of any given station, eliminating the need for manual fine tuning.

Antennas and Mobility

Although an automobile radio will give excellent mobile reception, it is limited by the vehicle operating characteristics and certain geographical effects.

Interfering Noise

The vehicle ignition system is a source of radio interference. This high-voltage switching system produces a radio frequency electromagnetic field that radiates at AM, FM and CB frequencies, although components have been designed into the vehicle to minimize this concern. Vehicle electrical accessories and owner add-on accessories may also contribute to radio interference. There are also many noise sources which are external to the vehicle. These include power lines, communication systems, or other vehicles.

Noise or static may result from many causes. Two of the most common sources of radio noise are listed below.

Ignition Noise

The most effective method of evaluating ignition noise is to compare the radio performance with engine running, versus engine off. If ignition noise is present with engine running:

- Make sure that the spark plug wires are the suppressor type and that the spark plugs are the correct resistor type.
- Make sure that the carbon center insert in the distributor cap is secure.

Missing or Faulty Noise Suppression Component

- Noise suppression components may be faulty or missing.

- Check bond strap grounding effectiveness by wedging a large file between metal components to ensure proper ground, such as between the tail pipe and body, or between the fender and frame, while the radio is playing and the engine is running. Listen for a decrease in the objectionable radio noise. If a reduction in radio noise is noted, first try tightening body and exhaust system clamps and brackets. If necessary, install a new bond strap between the two metal components to ensure proper ground.

FM Multi-Path Cancellation

This condition exists when the radio waves are reflected from objects or structures. The noise produced by cancellation is similar to flutter, with the addition of distortion in the program.

Stereo Indicator Lamp Inoperative or Flickering (AM and FM Reception are OK)

- Verify that the radio is tuned to stereo stations.
- A weak or distant signal may cause stereo indicator lamp to flicker. Tune radio to nearby FM stereo station. If reception is good, but stereo indicator lamp is still intermittent, remove radio chassis for service.
- Intermittent FM stereo indicator lamp operation is sometimes caused by a damaged AM / FM band switch. If normal operation can be restored by switching back and forth from AM to FM several times, radio should be removed for service. This condition should be noted on service tag.

Cassette Tape Player

Insert the tape cassette to play (radio on, ignition in RUN or ACC). At the end of the tape, the cassette automatically reverses and plays the other side of the tape. At any time the tape transport mechanism can be changed to play the other side of the tape by pressing the REVERSE button.

NOTE: Before turning off radio or ignition, always eject any cassette being played. Leaving the tape mechanism stopped while a tape is engaged can result in damage to the tape, or cassette player.

Operating Precautions

When inserting a tape cassette into the tape slot, it should be firmly pushed in and down to ensure that it is properly seated. Do not leave a tape cassette engaged in the tape player slot when not in use. Remove it completely to permit the door to close and keep out airborne dirt. Disengaging the cassette from the tape playback head in this manner will also prevent a flat spot from developing on the capstan roller.

Take care to protect the open edge of the cassette from damage, or contaminants. When not in use, store cassettes in their protective cases. Otherwise, there will be a risk of having the tape loosen on its hubs, which could cause the tape to spill or jam in the player. If a cassette is found with loose tape, make sure it is rewound firmly around the hubs before using it. Never try to open a cassette or try to pull the tape out of it.

DESCRIPTION AND OPERATION (Continued)

Tape Player will Not Accept Cartridge, Eats Tape, Plays Too Fast or Too Slow, Etc. (AM and FM Operating Properly)

NOTE: Complaints about poor performance while using tapes usually indicates a dirty head in the tape deck. Poor fidelity of tape, low tape volume, garbled sound on tape, poor treble response or muffled sound are indications of a dirty head.

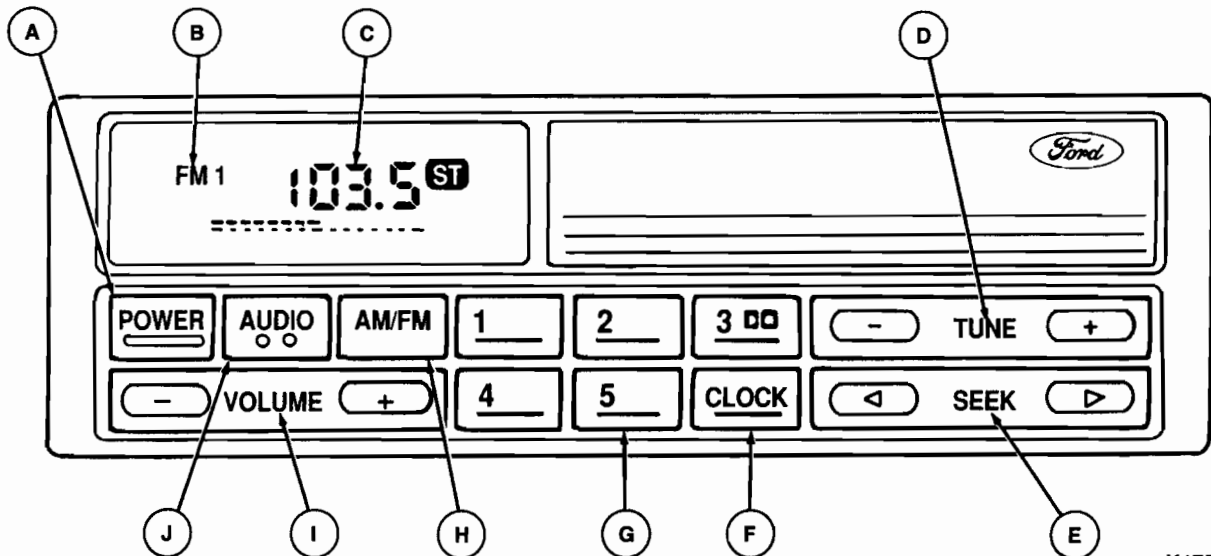
- Make sure tape cassette has not come to the end.
- Check operation of tape player by using a known good cassette.

- If condition is not corrected by substitution of known good cassette, radio chassis must be removed and sent to an authorized service facility for service.

WARNING: USE ONLY PROPERLY INSTALLED FCC APPROVED RADIO TRANSMITTING EQUIPMENT. USE OF OTHER TRANSMITTING EQUIPMENT MAY CAUSE THE VEHICLE TO MALFUNCTION OR STALL. IF THE ENGINE STALLS, POWER BRAKE AND POWER STEERING ASSIST WILL STOP. CONSULT AN AUTHORIZED DEALER BEFORE INSTALLING ANY RADIO TRANSMITTER.

AM/FM Multiplex Radio—ESR

The electronic search radio (ESR) is mounted in the lower center console of the instrument panel.



K17508-A

The following explains various features of controls:

- POWER:** Push to turn ON, push again to turn OFF.
- BAND INDICATOR:** Indicates if band is in AM, FM1 or FM2 setting.
- STATION INDICATOR:** Indicates radio station frequency in radio mode.
- TUNE:** This button is used to change the frequency up or down one increment at a time by pressing the right (>) or left (<) side of button. To change frequencies quickly press and hold either right or left side of button.
- SEEK:** Push right (>) side of SEEK button to tune radio to the next higher frequency station. Push left (<) side of SEEK button to tune radio down to next lower frequency station.
- MEMORY BUTTONS:** The six memory buttons are used to store preferred broadcast stations in radio memory. To store a station, tune to desired station, push memory button in and hold for approximately two seconds until station sound returns, then release button. Repeat process for each memory button. Once a station is stored in memory, pushing a memory button for less than two seconds will cause radio to turn to stored station. All six memory buttons will store a station on AM, FM1 or FM2 for a total of 18 storable radio stations.
- AM/FM:** Each successive push, when in radio mode, will select AM, FM1 or FM2 as indicated by band indicator in display window.

DESCRIPTION AND OPERATION (Continued)

- H. **VOLUME:** Push right (+) side of VOLUME button to increase volume. Push left (-) side to decrease volume. If VOLUME button is held to the right or left, the volume will continuously increase or decrease (bars in display will show relative volume) until button is released.

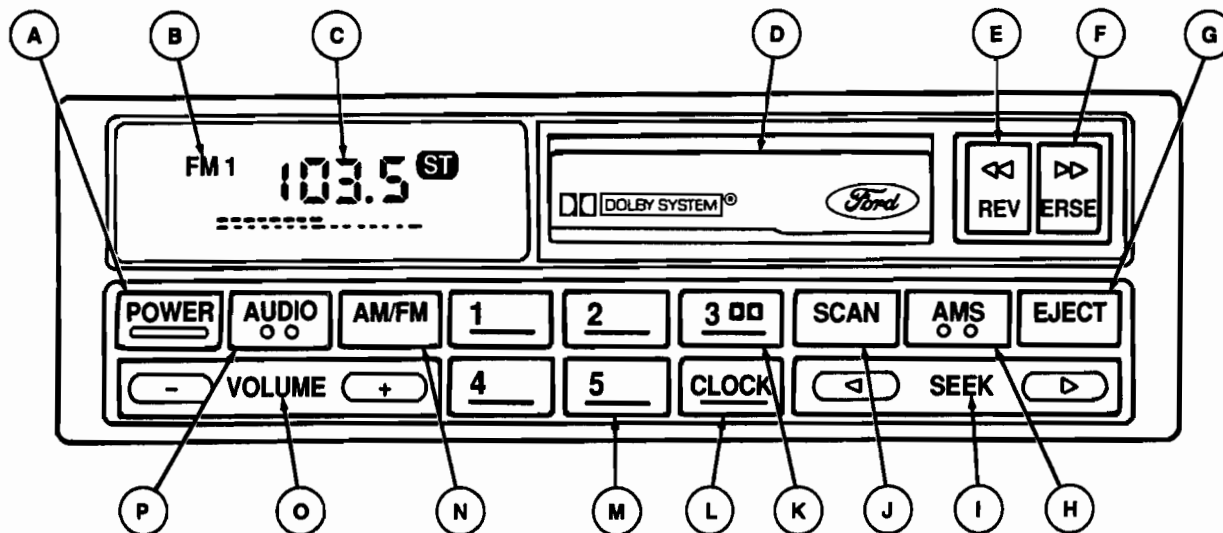
NOTE: If the VOLUME button is set above a preset listening level when ignition switch is turned off, when ignition switch is turned back on, the volume will return to a nominal listening level. However, if radio power is turned off with the POWER button before ignition is turned off, volume will return to the position it was set at previously, when radio power is switched back on.

- I. **AUDIO:** The AUDIO button is used to adjust bass, treble, speaker balance and fade. Illuminated bars in display will show relative positions.

- **Bass:** Push AUDIO button repeatedly until BASS is displayed. Push the right (+) side of VOLUME button to increase low frequency sound or left (-) side to decrease low frequency sounds.
- **Treble:** Push AUDIO button repeatedly until TREB is displayed. Push the right (+) side of VOLUME button to increase high frequency sound or left (-) side to decrease high frequency sounds.
- **Speaker Balance:** Push AUDIO button repeatedly until BAL is displayed. Push the right (+) side of VOLUME button to shift sound to right speakers or left (-) side to shift sound to left speakers.
- **Speaker Fade:** Push AUDIO button repeatedly until FADE is displayed. Push the right (+) side of VOLUME button to shift sound to rear speakers or left (-) side to shift sound to front speakers.

AM/FM Multiplex with Cassette Player

The electronic search radio with cassette player (ESC) contains all of the same features of the ESR, with the added feature of a cassette player. All of the procedures used are identical for both systems.



K17509-A

The following explains various features of controls:

- A. **POWER:** Push to turn ON, push again to turn OFF.

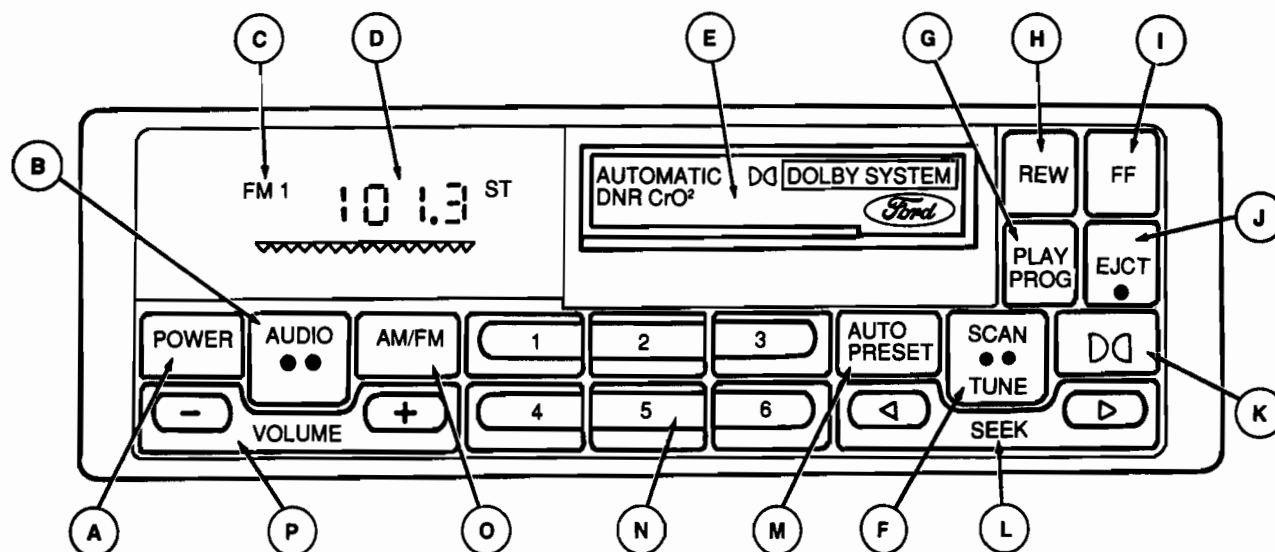
- B. **BAND INDICATOR:** Indicates if band is in AM, FM1 or FM2 setting.
- C. **STATION INDICATOR:** Indicates radio station frequency in radio mode. When a tape is played, arrows indicate direction of tape removal.

DESCRIPTION AND OPERATION (Continued)

- D. **TAPE OPENING:** When tape is inserted (with open edge to the right) and radio power is ON, tape begins to play.
- E. **REVERSE:** Push the left (<) side of REVERSE button to rewind a tape playing forward. To return tape play, push right (>) side of REVERSE button momentarily. Pushing both sides of REVERSE button simultaneously will reverse tape to opposite side (track).
- F. **REVERSE:** Push the right (>) side of REVERSE button to fast forward a tape playing forward. To return tape play, push left (<) side of REVERSE button momentarily. Pushing both sides of REVERSE button simultaneously will reverse tape to opposite side (track).
- G. **EJECT:** Press the EJECT button to stop the tape and eject cassette. The radio will resume playing if power is on.
- H. **AMS:** The automatic music search (AMS) button is used to change frequency up or down one increment at a time in radio mode. After pushing the AMS button, push and release either the right (>) or left (<) side of SEEK button. To change frequencies quickly, press and hold down either right or left side of SEEK button. In tape mode, use AMS button to change tape to next selection. First push and hold AMS button, then push either left or right side of REWIND button to find beginning of next tape selection.
- I. **SEEK:** Push right (>) side of SEEK button to tune radio to the next higher frequency station. Push left (<) side of SEEK button to tune radio down to next lower frequency station.
- J. **SCAN:** Press SCAN button to enter scan mode. The radio will begin to scan up to the next radio station for a five second sampling. To stop scan mode on presently sampled radio station, press the SCAN button a second time.
- K. **DOLBY:** Push No. 3 memory button to select DOLBY® Noise Reduction in tape mode.
- L. **MEMORY BUTTONS:** The six memory buttons are used to store preferred broadcast stations in radio memory. To store a station, tune to desired station, push memory button in and hold for approximately two seconds until station sound returns, then release button. Repeat process for each memory button. Once a station is stored in memory, pushing a memory button for less than two seconds will cause radio to turn to stored station. All six memory buttons will store a station on AM, FM1 or FM2 for a total of 18 storable radio stations.
- M. **AM/FM:** Each successive push, when in radio mode, will select AM, FM1 or FM2 as indicated by band indicator in display window.
- N. **VOLUME:** Push right (+) side of VOLUME button to increase volume, push left (-) side to decrease volume. If VOLUME button is held to the right or left, the volume will continuously increase or decrease (bars in display will show relative volume) until button is released.
- NOTE: If the VOLUME button is set above a preset listening level when ignition switch is turned off, when ignition switch is turned back on, the volume will return to a nominal listening level. However, if radio power is turned off with the POWER button before ignition is tuned off, volume will return to the position it was set at previously, when radio power is switched back on.
- O. **AUDIO:** The AUDIO button is used to adjust bass, treble, speaker balance and fade. Illuminated bars in display will show relative positions.
- **Bass:** Push AUDIO button repeatedly until BASS is displayed. Push the right (+) side of VOLUME button to increase low frequency sound or left (-) side to decrease low frequency sounds.
 - **Treble:** Push AUDIO button repeatedly until TREB is displayed. Push the right (+) side of VOLUME button to increase high frequency sound or left (-) side to decrease high frequency sounds.
 - **Speaker Balance:** Push Audio button repeatedly until BAL is displayed. Push the right (+) side of VOLUME button to shift sound to right speakers or left (-) side to shift sound to left speakers.
 - **Speaker Fade:** Push AUDIO button repeatedly until FADE is displayed. Push the right (+) side of VOLUME button to shift sound to rear speakers or left (-) side to shift sound to front speakers.
- P. **TAPE EJECTOR BUTTON:** Press to eject tape.
- NOTE: Before turning off the radio or the ignition of the vehicle, always eject any cassette being played. Leaving the tape mechanism stopped while tape is engaged can result in damage to the tape, pinch roller, or capstan.

DESCRIPTION AND OPERATION (Continued)

Premium Analog Cassette Radio (PAC)



K16897-A

The features described are identical on all PAC radios.

- A. **POWER:** Push to turn radio ON, push again to turn OFF.
- B. **AUDIO:** The audio button is used to adjust bass, treble, speaker balance and fade. Illuminated bars in display will show relative positions.
 - **BASS:** Push AUDIO button repeatedly until BASS is displayed. Push the right (+) side of VOLUME button to increase low frequency sounds or left (-) side to decrease low frequency sounds.
 - **TREBLE:** Push AUDIO button repeatedly until TREB is displayed. Push the right (+) side of VOLUME button to increase high-frequency sounds or left (-) side to decrease high-frequency sounds.
 - **SPEAKER BALANCE:** Push AUDIO button repeatedly until BAL is displayed. Push the right (+) side of VOLUME button to shift sound to right speakers or left (-) side to shift sound to left speakers.
 - **SPEAKER FADE:** Push AUDIO button repeatedly until FADE is displayed. Push the right (+) side of VOLUME button to shift sound to rear speakers or left (-) side to shift sound to front speakers.
- C. **BAND INDICATOR:** Indicates if band is in AM, FM1 or FM2 setting.
- D. **STATION INDICATOR:** Indicates radio station frequency in radio mode. When tape is played, whirling sprockets indicate direction of tape travel.

- E. **TAPE OPENING:** Cassette tape player is equipped with power loading. When tape is inserted (with open edge to the right) the loading mechanism draws the tape in the rest of the way and begins to play.
- F. **SCAN TUNE:** Press SCAN TUNE button to enter scan mode (display will blink SCN). Pushing the right (>) side of SEEK button will begin forward scan mode up to the next radio station for a five second sampling, or a five second sampling of the next tape selection on tape currently playing. Pushing left (<) side of SEEK button will begin reverse scan mode to previous radio station for a five second sampling or a five second sampling of previous tape selection on tape currently playing. To stop scan mode on presently sampled radio station, press the side of SEEK button which matches the direction the radio is currently scanning or re-press SCAN TUNE button. To stop scan mode on presently sampled tape selection, press the side of SEEK button which matches the direction tape is currently scanning. To change radio stations up or down by one increment, push SCAN TUNE button twice (display reads TUNE), then within five seconds press and release either right (>) or left (<) side of SEEK button. To change stations quickly, press and hold either the right or left side of SEEK button.
- G. **PLAY PROGRAM:** Push and hold PLAY PROG button for 1 second to stop the tape player and resume radio play. The cassette will be stored in the tape player and the symbol will display until PLAY PROG button is pushed to resume tape play.

DESCRIPTION AND OPERATION (Continued)

- H. **REVERSE:** Push REV button to rewind tape. The radio will automatically begin playing until rewind is manually stopped by pushing PLAY PROG button or tape is completely rewound.
- I. **FAST FORWARD:** Push the FF button to forward tape. The radio will automatically begin playing until fast forward is manually stopped by pushing PLAY PROG button or tape reaches end.
- J. **EJECT:** Press EJCT button to stop tape and eject cassette. The radio will resume playing if power is ON. The tape cartridge can be ejected whether radio power or ignition is on or off.
- K. **DOLBY:** Push to select Dolby® noise reduction in tape mode or Dynamic Noise Reduction® in radio mode. A second push will turn off active Noise Reduction System and lighted symbol from display. The audio system is designed to automatically activate Dynamic Noise Reduction® when under a weak FM signal and will automatically deactivate when it is not needed for signal strength.
- L. **SEEK:** Push right (>) side of SEEK button to tune radio to the next higher frequency station or to beginning of next tape selection on tape currently playing. Push left (<) side of SEEK button to tune radio down to next lower frequency station or to the beginning of tape selection currently playing.
- M. **AUTO PRESET:** Push the AUTO PRESET button for three seconds to use automatic memory store feature. The radio will automatically seek six strong stations and set them sequentially on memory buttons 1 through 6.
- N. **MEMORY BUTTONS:** The six memory buttons are used to store preferred broadcast stations in radio memory. To store a station, tune to desired station, push memory button in and hold for approximately two seconds until station sound returns, then release button. Repeat process for each memory button. Once a station is stored in memory, pushing a memory button for less than two seconds will cause radio to turn to stored station. All six memory buttons will store a station on AM, FM1 or FM2 for a total of 18 storable radio stations.
- O. **AM/FM:** Each successive push, when in radio mode, will select AM, FM1 or FM2 as indicated by band indicator in display window.
- P. **VOLUME:** Push right (+) side of VOLUME button to increase volume. Push left (-) side to decrease volume. If VOLUME button is held to the right or left, the volume will continuously increase or decrease (bars in display will show relative volume) until button is released.

NOTE: If the VOLUME button is set above a preset listening level when ignition switch is turned off, when ignition switch is turned back on, the volume will return to a nominal listening level. However, if radio power is turned off with the POWER button before ignition is turned off, volume will return to the position it was set at previously, when radio power is switched back on.

Tape Error Messages

The PAC radio is designed to diagnose certain inoperative cassette player conditions. The error codes are as follows:

- Error 0—Communication error between radio controller and tape controller.
- Error 1—Possible tape cartridge jam.
- Error 2—Tape eject or load concern.

CAUTION: Before turning off radio or the ignition of vehicle, always eject any cassette being played. Leaving the tape mechanism stopped while a tape is engaged can result in damage to the tape, pinch roller or capstan.

Hints on the Care and Operation of Tapes

TEMPERATURE EXTREMES: Be careful not to expose tape cassettes to intense sunlight or other temperature extremes. If they do become exposed to high or low temperatures, allow each cassette to reach a moderate temperature before playing them. During cold weather, it is advisable to take cassettes indoors overnight to protect them.

OPERATING PRECAUTIONS: When inserting a cassette into the tape slot, it should be firmly pushed into the tape slot, to ensure that it is properly seated.

Do not leave a tape cassette engaged in the tape player slot when not in use. Remove it completely to permit the slot door to close and keep out airborne dirt.

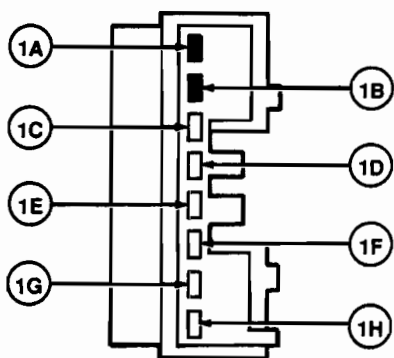
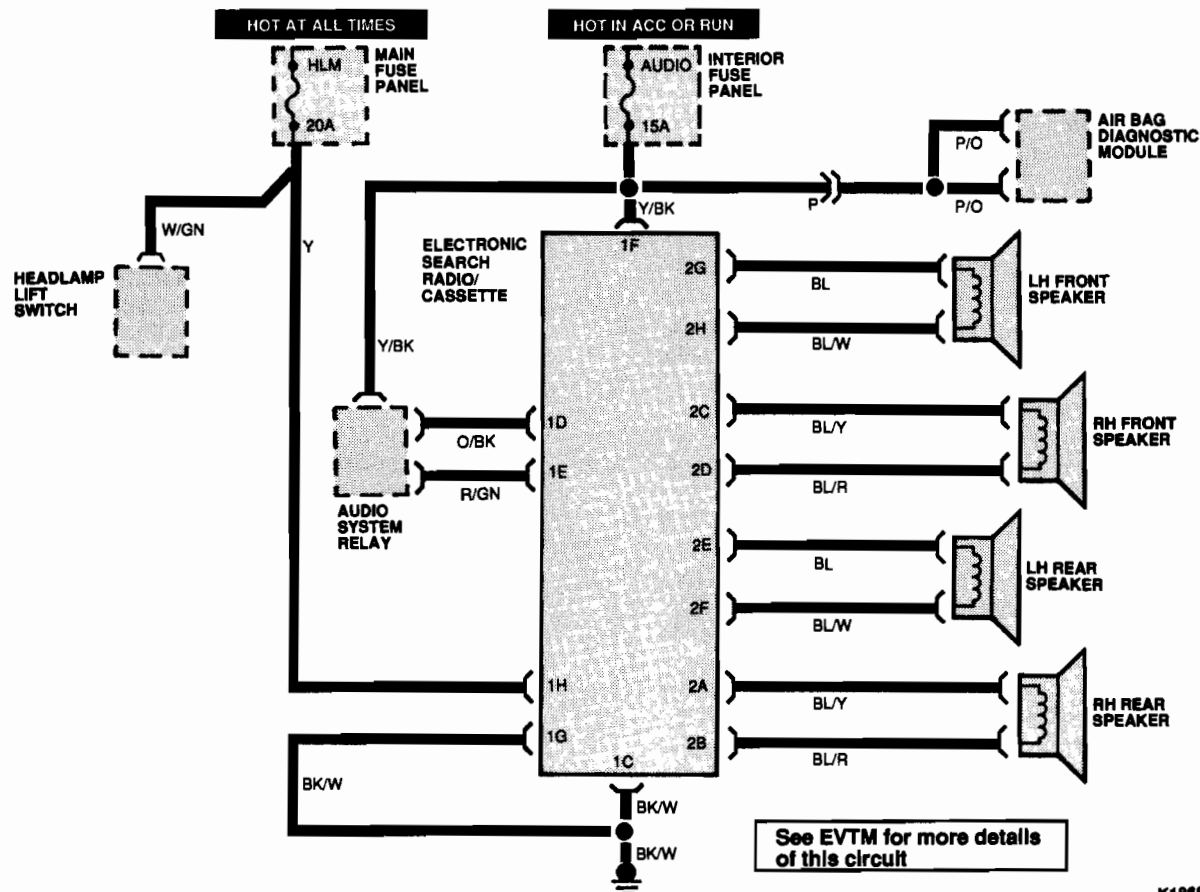
Take care to protect the open edge of the tape from damage or contaminants. When not in use, store tapes in their protective cases. If a cassette is found with loose tape, be sure it is rewound firmly around the hubs before using it.

Cassette tapes can vary in performance and size. If any one cassette gives continual concerns, discontinue using it.

For best results, use cassette tapes with no more than 90 minutes of playing time. The thinness of the tape used in C120 and C180 cassettes makes the tape more likely to stretch and break.

DIAGNOSIS AND TESTING

Electrical Schematic—Electronic Search Radio/Cassette (ESR/ESC)

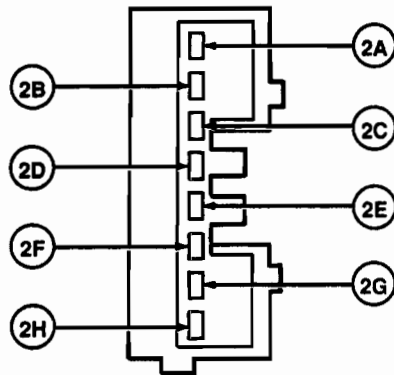


RADIO INPUT

K18685-A

Pin Number	Wire Color	Circuit Function
1A	—	Not Used
1B	—	Not Used
1C	BK/W	Ground
1D	O/BK	Audio System Relay
1E	R/GN	Illumination Power
1F	Y/BK	Power Supply
1G	BK/W	Illumination Return
1H	Y	Battery Power

DIAGNOSIS AND TESTING (Continued)

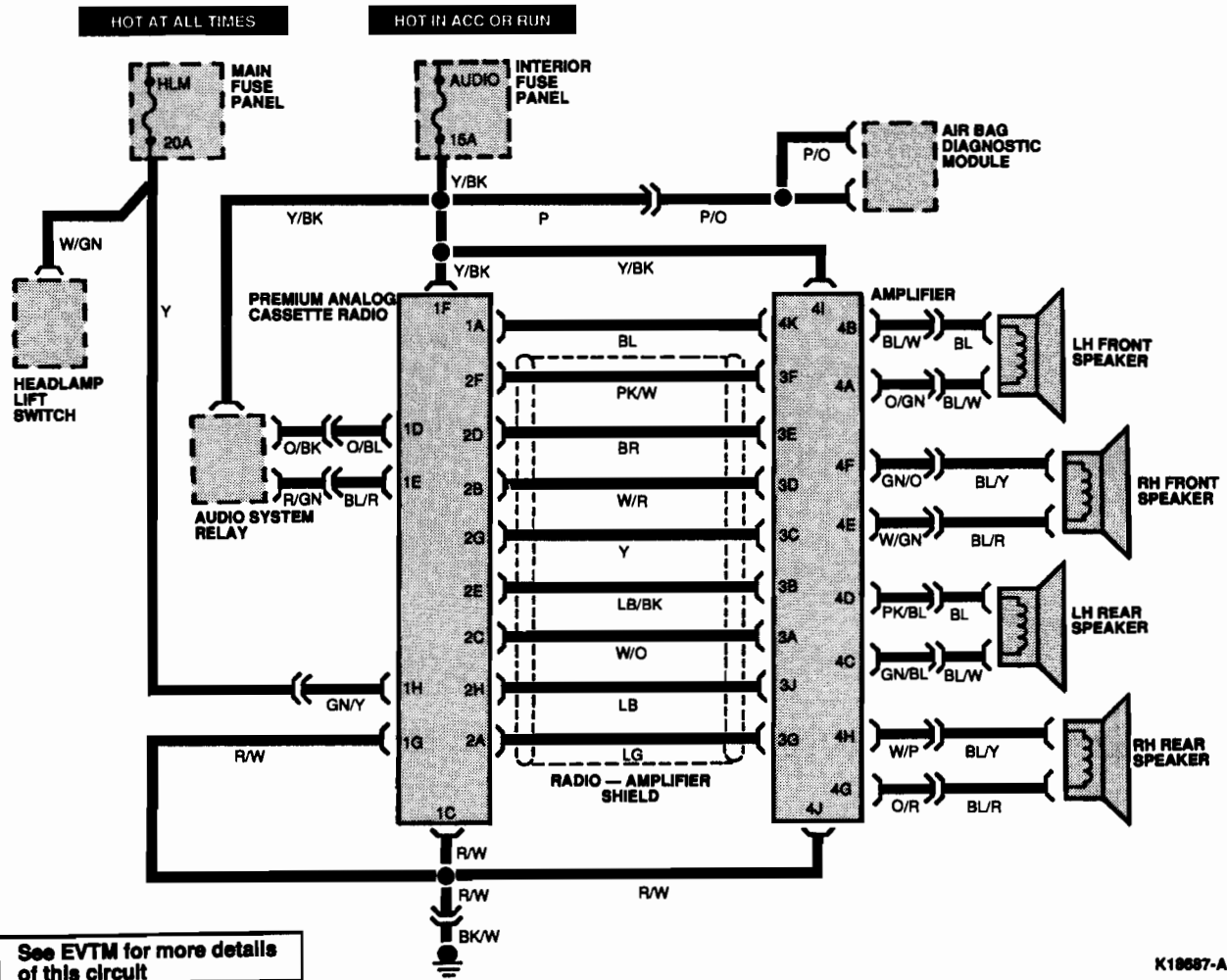


RADIO OUTPUT

K18686-A

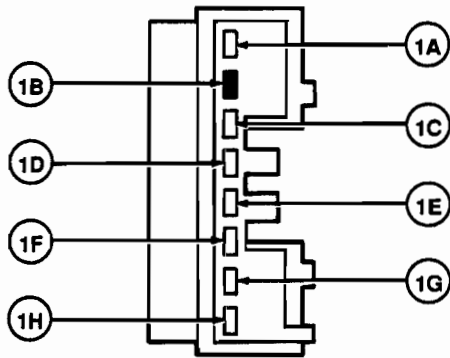
Pin Number	Wire Color	Circuit Function
2A	BL / Y	RH Rear Speaker (-)
2B	BL / R	RH Rear Speaker (+)
2C	BL / Y	LH Rear Speaker (-)
2D	BL / R	LH Rear Speaker (+)
2E	BL	RH Front Speaker (-)
2F	BL / W	RH Front Speaker (+)
2G	BL	LH Front Speaker (-)
2H	BL / W	LH Front Speaker (+)

Electrical Schematic—Premium Analog Cassette (PAC)



K18687-A

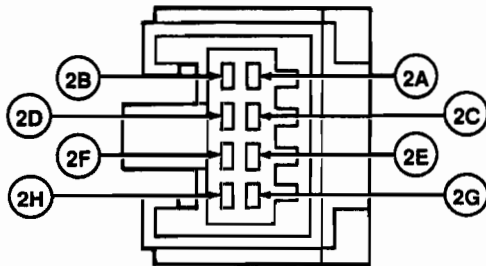
DIAGNOSIS AND TESTING (Continued)



RADIO INPUT

K18688-A

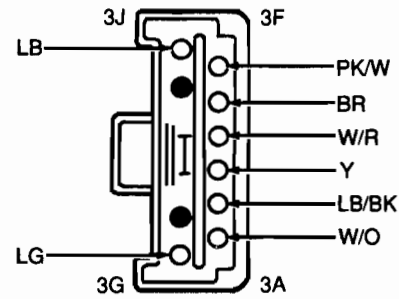
Pin Number	Wire Color	Circuit Function
1A	BL	Amplifier Enable Signal
1B	—	Not Used
1C	R/W	Ground
1D	O/BL	Audio System Relay
1E	BL/R	Illumination Power
1F	Y/BK	Power Supply
1G	R/W	Illumination Return
1H	GN/Y	Battery Power



RADIO OUTPUT

K18689-A

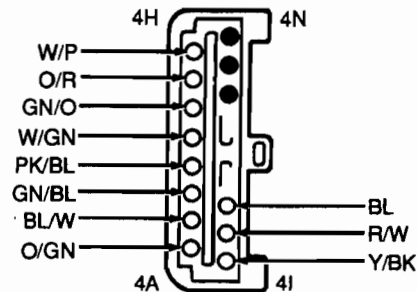
Pin Number	Wire Color	Circuit Function
2A	LG	Left Front Speaker (+)
2B	W/R	Right Front Speaker (+)
2C	W/O	Left Front Speaker (-)
2D	BR	Right Front Speaker (-)
2E	LB/BK	Left Rear Speaker (+)
2F	PK/W	Right Rear Speaker (+)
2G	Y	Left Rear Speaker (-)
2H	LB	Right Rear Speaker (-)



AMPLIFIER

K18690-A

Pin Number	Wire Color	Circuit Function
3A	W/O	Left Front Return
3B	LB/BK	Left Rear Channel Input
3C	Y	Left Rear Return
3D	W/R	Right Front Channel Input
3E	BR	Right Front Return
3F	PK/W	Right Rear Channel Input
3G	LG	Left Front Channel Input
3H	—	Not Used
3I	—	Not Used
3J	LB	Right Rear Return



AMPLIFIER

K18691-A

Pin Number	Wire Color	Circuit Function
4A	O/GN	Left Front Door Speaker (-)
4B	BL/W	Left Front Door Speaker (+)
4C	GN/BL	Left Rear Speaker (-)
4D	PK/BL	Left Rear Speaker (+)
4E	W/GN	Right Front Door Speaker (-)
4F	GN/O	Right Front Door Speaker (+)
4G	O/R	Right Rear Speaker (-)
4H	W/P	Right Rear Speaker (+)
4I	Y/BK	Power Input
4J	R/W	Ground
4K	BL	Radio ON Signal

(Continued)

DIAGNOSIS AND TESTING (Continued)

Pin Number	Wire Color	Circuit Function
4L	—	Not Used
4M	—	Not Used
4N	—	Not Used

Visual Inspection—Audio System

1. Visually inspect the components of the audio system.

VISUAL INSPECTION CHART

Mechanical	Electrical
<ul style="list-style-type: none"> • Damaged Radio Controls 	<ul style="list-style-type: none"> • Blown Fuses: <ul style="list-style-type: none"> • 20 amp HLM • 15 amp AUDIO
<ul style="list-style-type: none"> • Damaged Cassette Tape 	<ul style="list-style-type: none"> • Damage to Wiring Harness • Loose or Corroded Connectors

2. Turn ignition key ON. Cycle radio between each speaker channel and observe radio function.
3. Briefly inspect the exposed wiring harnesses and connectors for apparent damage.
4. If the fault is not visually evident, determine condition and refer to the following condition chart.

CONDITION CHART—AUDIO SYSTEM

CONDITION	POSSIBLE SOURCE	ACTION
<ul style="list-style-type: none"> • Radio Not Working or Intermittent 	<ul style="list-style-type: none"> • Fuses. • Radio. • Circuit. 	<ul style="list-style-type: none"> • Go to A1.
<ul style="list-style-type: none"> • Radio Functions Not Working 	<ul style="list-style-type: none"> • Radio. • Circuit. 	<ul style="list-style-type: none"> • Go to A7 through A30 for function tests desired.
<ul style="list-style-type: none"> • Radio Has Noisy AM Reception 	<ul style="list-style-type: none"> • Radio. • Antenna. • Noise suppression. • Amplifier (if equipped) • Hardware. • Circuit. 	<ul style="list-style-type: none"> • Go to A31.
<ul style="list-style-type: none"> • Radio Has Noisy FM Reception 	<ul style="list-style-type: none"> • Radio. • Antenna. • Noise suppression. • Amplifier (if equipped) • Hardware. • Circuit. 	<ul style="list-style-type: none"> • Go to A31.
<ul style="list-style-type: none"> • Radio Has Weak Reception 	<ul style="list-style-type: none"> • Radio. • Antenna. • Circuit. 	<ul style="list-style-type: none"> • Go to A31.
<ul style="list-style-type: none"> • Radio/Cassette Not Working or Intermittent 	<ul style="list-style-type: none"> • Fuse. • Radio. • Circuit. 	<ul style="list-style-type: none"> • Go to A25.
<ul style="list-style-type: none"> • Left Front Speaker Not Working 	<ul style="list-style-type: none"> • Radio. • Speaker. • Circuit. 	<ul style="list-style-type: none"> • Go to A44.
<ul style="list-style-type: none"> • Right Front Speaker Not Working 	<ul style="list-style-type: none"> • Radio. • Speaker. • Circuit. 	<ul style="list-style-type: none"> • Go to A44.
<ul style="list-style-type: none"> • Right Rear Speaker Not Working 	<ul style="list-style-type: none"> • Radio. • Speaker. • Circuit. 	<ul style="list-style-type: none"> • Go to A44.
<ul style="list-style-type: none"> • Left Rear Speaker Not Working 	<ul style="list-style-type: none"> • Radio. • Speaker. • Circuit. 	<ul style="list-style-type: none"> • Go to A44.

DIAGNOSIS AND TESTING (Continued)

CONDITION CHART—AUDIO SYSTEM (Continued)

CONDITION	POSSIBLE SOURCE	ACTION
<ul style="list-style-type: none"> One or More Speakers Not Working (Premium Analog Cassette) 	<ul style="list-style-type: none"> Radio. Speaker. Amplifier. Circuit. 	<ul style="list-style-type: none"> Go to A46.

PINPOINT TEST A—AUDIO SYSTEM

TEST STEP		RESULT	ACTION TO TAKE
A1	CHECK FUSE		
	<ul style="list-style-type: none"> Locate interior fuse panel. Check 15 amp AUDIO fuse. Is fuse OK? 	Yes No	GO to A4. GO to A2.
A2	CHECK SYSTEM		
	<ul style="list-style-type: none"> Replace blown 15 amp AUDIO fuse. Key ON. Does fuse fall again? 	Yes No	GO to A3. GO to A4.
A3	CHECK FOR SHORTS TO GROUND		
	<ul style="list-style-type: none"> Key OFF. Locate and disconnect the interior fuse panel connector and radio connector. Measure resistance between Y/BK wire at interior fuse panel connector and ground. Is resistance less than 5 ohms? 	Yes No, Electronic Search Radio/Cassette (ESR/ESC) No, Premium Analog Cassette (PAC)	SERVICE Y/BK wire. GO to A4. GO to A47.
A4	CHECK POWER SUPPLY TO RADIO		
	<ul style="list-style-type: none"> Locate radio connector. Key ON. Measure voltage on Y/BK wire at the radio. Is voltage greater than 10 volts? 	Yes No	GO to A5. SERVICE Y/BK wire.
A5	CHECK RADIO GROUND		
	<ul style="list-style-type: none"> Key OFF. Measure resistance between the BK/W (ESR/ESC) or R/W (PAC) wire at radio connector and ground. Is resistance less than 5 ohms? 	Yes No	GO to A6. SERVICE wire in question.
A6	SYMPTOM MENU		
	<ul style="list-style-type: none"> Radio functions not operating correctly. Radio has weak reception. One or more speaker(s) not working. 		GO to A7. GO to A31. GO to A44.
A7	CHECK AM INDICATOR		
	<ul style="list-style-type: none"> Push the band or AM button and observe that AM on display is lit. Is AM indicator working? 	Yes No	GO to A8. REMOVE radio for service.
A8	CHECK SEEK UP		
	<ul style="list-style-type: none"> Depress seek up button and verify that number on display increases. If display reads 1610 AM or 107.9 FM, display will not increase and the seek button should be depressed until display reads less than 1610 AM or 107.9 FM. Does the seek up function properly? 	Yes No	GO to A9. REMOVE radio for service.
A9	CHECK SEEK DOWN		
	<ul style="list-style-type: none"> Depress seek down button and verify that number on display decreases. If display reads 530 AM or 88.1 FM, display will not decrease and the seek button should be depressed until display reads greater than 530 AM or 88.1 FM. Does seek down function properly? 	Yes No	GO to A10. REMOVE radio for service.

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST A—AUDIO SYSTEM (Continued)

TEST STEP		RESULT	ACTION TO TAKE
A10	CHECK FAST UP		
	<ul style="list-style-type: none"> ● Push tune (+) button and hold. ● Does the fast up function properly? 	Yes No	GO to A11. REMOVE radio for service.
A11	CHECK FAST DOWN		
	<ul style="list-style-type: none"> ● Push tune (-) button and hold. ● Does fast down function properly? 	Yes No	GO to A12. REMOVE radio for service.
A12	CHECK FUSE		
	<ul style="list-style-type: none"> ● Locate main fuse panel. ● Check the 20 amp HLM fuse. ● Is fuse OK? 	Yes No	GO to A15. GO to A13.
A13	CHECK SYSTEM		
	<ul style="list-style-type: none"> ● Replace blown fuse. ● Did fuse fall again immediately? 	Yes No	GO to A14. GO to A15.
A14	CHECK FOR SHORT TO GROUND		
	<ul style="list-style-type: none"> ● Locate and disconnect the main fuse panel connector and radio connector. ● Measure resistance between the Y wire at the main fuse panel connector and ground. ● Is resistance less than 5 ohms? 	Yes No	SERVICE Y wire. GO to A15.
A15	CHECK POWER SUPPLY TO MEMORY CIRCUIT		
	<ul style="list-style-type: none"> ● Locate radio connector. ● Measure voltage on Y wire at the connector. ● Is voltage greater than 10 volts? 	Yes No	GO to A16. SERVICE Y wire.
A16	CHECK STATION MEMORY RECALL		
	<ul style="list-style-type: none"> ● Depress seek tuning to select desired station. When station is tuned, depress and hold a memory button. When memory button is depressed, station's sound will be interrupted. Depress button for approximately two seconds. When station's sound returns, button is set and may be released. This process is repeated for each memory button. Turn radio off then on. Depress each station recall button and verify the stations indicated are the same as stations stored above. ● Is memory working? 	Yes No	GO to A17. SERVICE/REPLACE radio.
A17	CHECK FM INDICATOR		
	<ul style="list-style-type: none"> ● Push the band or FM button and observe that FM on display is illuminated. ● Is FM indicator working? 	Yes No	GO to A18. SERVICE/REPLACE radio.
A18	CHECK FM STEREO INDICATOR		
	<ul style="list-style-type: none"> ● Tune radio to a known FM stereo station and observe that the stereo indicator lamp is on. ● Is stereo indicator lamp on? 	Yes No	GO to A19. REMOVE radio for service.
A19	CHECK VOLUME CONTROL		
	<ul style="list-style-type: none"> ● Tune radio to a local station. ● Press the VOLUME (+) button and verify that an increase in the sound level occurs. Press the VOLUME (-) button and verify a decrease in the sound level occurs. ● Does volume change as indicated? 	Yes No	GO to A20. CHECK speaker connections and PERFORM speaker test as outlined. REPEAT volume control test. If volume still is not OK, REMOVE radio for service. If volume OK, GO to A12.

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST A—AUDIO SYSTEM (Continued)

TEST STEP		RESULT	ACTION TO TAKE
A20	CHECK TONE CONTROL		
	<ul style="list-style-type: none"> Press AUDIO control button until "BASS" is indicated. Press VOLUME (+) button and verify that an increase in the low frequency content of the sound occurs. Press AUDIO control button until "TREB" is indicated. Press VOLUME (+) button and verify that an increase in the high frequency content of the sound occurs. Is tone control working properly? 	Yes No	GO to A21. REMOVE radio for service.
A21	CHECK BALANCE CONTROL		
	<ul style="list-style-type: none"> Press AUDIO control button until "BAL" is indicated. Push VOLUME (+) and (-) buttons to verify that sound moves from LH speakers to RH speakers. Is balance control working properly? 	Yes No	GO to A22. CHECK speakers and speaker connections. REPEAT balance control test. If balance still is not OK, REMOVE radio for service. If balance OK, GO to A22.
A22	CHECK FADER CONTROL		
	<ul style="list-style-type: none"> Press AUDIO control button until "FADE" is indicated. Press VOLUME (+) and (-) buttons and verify that sound moves from front speakers to rear speakers. Is fader control working properly? 	Yes No	GO to A23. CHECK speakers and connections. REPEAT fader control test. If fader is not OK, REMOVE radio for service. If fader is OK, GO to A23.
A23	PERFORM SEEK TEST		
	<ul style="list-style-type: none"> Depress SEEK button and verify that radio stops on next station. Is seek button working properly? 	Yes No	GO to A24. TURN radio off and then on to determine if seeking stops. If seek does not stop, REMOVE radio for service. If seek does stop, GO to A24.
A24	PERFORM SCAN TEST		
	<ul style="list-style-type: none"> Tune radio on AM band (should be done outside of any building). Press seek button and count the number of listenable stations that can be tuned. Compare to a vehicle with a known, good radio system. Is radio receiving a normal number of stations? 	Yes No	GO to A25. PERFORM antenna system check as outlined. REPEAT scan test. If still not receiving normal number of stations REMOVE radio from vehicle and have serviced. If normal number of stations received GO to A25.
A25	CHECK CASSETTE (NO SOUND FROM ANY SPEAKER WITH RADIO ON)		
	<ul style="list-style-type: none"> Key ON, radio ON. Observe radio for digital display. Is display on? 	Yes No	GO to A26. GO to radio not working or intermittent.

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST A—AUDIO SYSTEM (Continued)

TEST STEP		RESULT	ACTION TO TAKE
A26	PERFORM CASSETTE LOADING TEST (CASSETTE TAPE WILL NOT LOAD)		
	<ul style="list-style-type: none"> ● Insert known good cassette tape into cassette. ● Does cassette tape load? 	Yes	▶ PERFORM cassette tape loading procedure with customer present. GO to A27.
		No	▶ CHECK cassette tape for damage or loose labels. If no damage or loose labels are evident SERVICE/REPLACE radio.
A27	PERFORM CASSETTE PLAY FUNCTION TEST (CASSETTE TAPE WILL NOT PLAY)		
	<ul style="list-style-type: none"> ● Load a known good cassette tape into cassette player. ● Observe cassette operation and that play symbol (< or >) is present in the lower right corner of radio display. ● Is play symbol (< or >) present and is there sound from all speakers? 	Yes	▶ Play symbol (< or >) is present on radio display and sound is at all speakers. PERFORM play procedure with customer present. GO to A28.
		Yes	▶ Play symbol (< or >) is present on the radio display: no sound or partial sound from speakers. GO to radio procedure for indicated concern.
		Yes	▶ Sound is OK: No play symbol (< or >) on radio display. SERVICE/REPLACE radio.
		No	▶ Sound or play symbol (< or >) not present. SERVICE/REPLACE radio.
A28	PERFORM CASSETTE REWIND FUNCTION TEST (CASSETTE TAPE WILL NOT REWIND)		
	<ul style="list-style-type: none"> ● Load a known good cassette tape into cassette player. ● Push rewind (REW or <<, >>) button in. ● Does the tape rewind properly? 	Yes	▶ PERFORM rewind procedure with customer present. Go to A29.
		No	▶ SERVICE/REPLACE radio.
A29	PERFORM CASSETTE FORWARD FUNCTION TEST (CASSETTE TAPE WILL NOT FAST FORWARD)		
	<ul style="list-style-type: none"> ● Load a known good cassette tape into cassette player. ● Push fast forward (FF or <<, >>) button in. ● Does the tape fast forward properly? 	Yes	▶ PERFORM fast forwarding procedure with customer present. GO to A30.
		No	▶ SERVICE/REPLACE radio.

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST A—AUDIO SYSTEM (Continued)

TEST STEP		RESULT	ACTION TO TAKE
A30	PERFORM CASSETTE EJECT FUNCTION TEST (CASSETTE TAPE WILL NOT EJECT)		
	<ul style="list-style-type: none"> Load a known good cassette tape into cassette player. Push eject button in. Does cassette tape eject? 	Yes	▶ PERFORM eject procedure with customer present.
		No	▶ CHECK cassette player door area for foreign objects. If nothing is found, SERVICE / REPLACE radio.
A31	CHECK ANTENNA CABLE CONNECTIONS		
	<ul style="list-style-type: none"> Check antenna cable connections including extension cable, if so equipped. Connection must be clean and secure. Are connections OK? 	Yes	▶ GO to A32.
		No	▶ CLEAN and/or SECURE antenna cable connections as required.
A32	SUBSTITUTE ANTENNA EXTENSION CABLE		
	<ul style="list-style-type: none"> Substitute a known good antenna cable. Verify operation of radio. Is noise eliminated? 	Yes	▶ REPLACE antenna extension cable.
		No	▶ GO to A33.
A33	CHECK ANTENNA MOUNTING		
	<ul style="list-style-type: none"> Check to make sure antenna is securely mounted to body at ground points. (Manual antenna-mounting screws to fender, and that prongs of grounding collar at fender underside are contacting metal.) Contacts must be clean and metal-to-metal. Are mounting contacts OK? 	Yes	▶ GO to A34.
		No	▶ CLEAN and/or SECURE connections as required.
A34	SUBSTITUTE ANTENNA AND SPEAKER		
	<ul style="list-style-type: none"> Substitute a known good speaker and antenna, making sure to ground antenna base to an unpainted metal surface. Verify operation of radio. Is noise eliminated? 	Yes	▶ REPLACE / SERVICE speaker and/or antenna.
		No	▶ GO to A35.
A35	CHECK SUPPRESSION EQUIPMENT		
	<ul style="list-style-type: none"> Check for presence of all required suppression equipment and body grounding strap for security, cleanliness and metal-to-metal connection. Is suppression equipment OK? 	Yes	▶ GO to A36.
		No	▶ INSTALL missing or damaged equipment and/or CLEAN connections as required.
A36	CHECK MOUNTING AND CONNECTING WIRES OF FOLLOWING COMPONENTS		
	<ul style="list-style-type: none"> Check the mounting and connecting wires of the generator's voltage regulator capacitor, if so equipped, and ignition coil capacitor for secureness, cleanliness, metal-to-metal contact (Refer to Group 14 and Group 03.) <p>NOTE: The capacitor mounting points are used to complete the electrical circuit and must be mounted securely to clean surfaces.</p> <ul style="list-style-type: none"> Are mountings and connections secure and clean? 	Yes	▶ GO to A37.
		No	▶ CLEAN and/or SECURE connections as required.
A37	CHECK OPERATION OF THE FOLLOWING COMPONENTS		
	<ul style="list-style-type: none"> Check the operation of the generator regulator capacitor and voltage regulator capacitor by replacing with known good components. Check generator by disconnecting wiring harness from voltage regulator. Verify radio reception. Is noise eliminated? 	Yes	▶ GO to A38.
		No	▶ SERVICE / REPLACE damaged components as required.

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST A—AUDIO SYSTEM (Continued)

TEST STEP		RESULT	ACTION TO TAKE																					
A38	CHECK SPARK PLUG WIRES	Yes No	▶ GO to A39. ▶ RE-ROUTE or REPLACE spark plug wires or SECURE connections as required.																					
<ul style="list-style-type: none">● Check spark plug wires for proper routing, grounding and secureness of connections.● Are spark plug wires OK?																								
A39	CHECK IGNITION SYSTEM	Yes No	▶ GO to A40. ▶ SERVICE / REPLACE components as required.																					
<ul style="list-style-type: none">● Check ignition system for proper operation. (Use ignition system analyzer or check for open circuit spark plug wires using an ohmmeter.)● Check spark plugs for cracked insulators.● Is ignition system OK?																								
A40	CHECK CHASSIS MOUNTING POINTS	Yes No	▶ GO to A41. ▶ CLEAN and / or SECURE as required.																					
<ul style="list-style-type: none">● Check all radio chassis mounting points for secureness, cleanliness and metal-to-metal contact.● Is radio mounted securely?																								
A41	REPOSITION THE FOLLOWING COMPONENTS	Yes No	▶ REPOSITION permanently by taping. ▶ GROUND various parts of the vehicle to the frame using a jumper cable. For example: engine fenders, quarter panels, stone deflectors, air cleaner, body sheet metal. When noise is eliminated, provide a permanent ground where required. GO to A42.																					
<ul style="list-style-type: none">● Check if noise can be eliminated by repositioning antenna, speaker or radio power feed lines from other wires and / or brackets.● Verify operation of radio.● Is the noise eliminated?																								
A42	SUBSTITUTE RADIO	Yes No	▶ SERVICE radio unit at an authorized service center. ▶ GO to A43.																					
<ul style="list-style-type: none">● Substitute with a known good radio.● Verify operation of radio.● Is noise eliminated?																								
A43	SUBSTITUTE AMPLIFIER	Yes No	▶ SERVICE amplifier at an authorized service center. ▶ INSTALL noise suppression equipment.																					
<ul style="list-style-type: none">● Substitute a known good amplifier (if so equipped).● Is noise eliminated?																								
A44	CHECK WIRES TO SPEAKERS	Yes No	▶ GO to A45. ▶ SERVICE wire in question.																					
<ul style="list-style-type: none">● Key OFF.● Locate speaker connectors.● Measure resistance of the following wires between the radio connector and speaker connector. <table><thead><tr><th>Speaker</th><th>Wire</th><th>Resistance</th></tr></thead><tbody><tr><td rowspan="2">RF</td><td>BL / R</td><td>Less than 5 ohms</td></tr><tr><td>BL / Y</td><td>Less than 5 ohms</td></tr><tr><td rowspan="2">LF</td><td>BL / W</td><td>Less than 5 ohms</td></tr><tr><td>BL</td><td>Less than 5 ohms</td></tr><tr><td rowspan="2">RR</td><td>BL / R</td><td>Less than 5 ohms</td></tr><tr><td>BL / Y</td><td>Less than 5 ohms</td></tr><tr><td rowspan="2">LR</td><td>BL / W</td><td>Less than 5 ohms</td></tr><tr><td>BL</td><td>Less than 5 ohms</td></tr></tbody></table> <ul style="list-style-type: none">● Are resistances correct?				Speaker	Wire	Resistance	RF	BL / R	Less than 5 ohms	BL / Y	Less than 5 ohms	LF	BL / W	Less than 5 ohms	BL	Less than 5 ohms	RR	BL / R	Less than 5 ohms	BL / Y	Less than 5 ohms	LR	BL / W	Less than 5 ohms
Speaker	Wire	Resistance																						
RF	BL / R	Less than 5 ohms																						
	BL / Y	Less than 5 ohms																						
LF	BL / W	Less than 5 ohms																						
	BL	Less than 5 ohms																						
RR	BL / R	Less than 5 ohms																						
	BL / Y	Less than 5 ohms																						
LR	BL / W	Less than 5 ohms																						
	BL	Less than 5 ohms																						

DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST A—AUDIO SYSTEM (Continued)

TEST STEP		RESULT	ACTION TO TAKE										
A45	CHECK CHANNEL SIGNAL												
<ul style="list-style-type: none">● Key ON.● Radio ON.● Set radio to a known strong station.● Connect a low wattage test lamp across the following wires at the radio connector. <p>NOTE: Do not set volume above 3 / 4.</p> <table><tr><th>Wire Colors</th><th>Balance - Fade</th></tr><tr><td>BL / R—BL / Y</td><td>Right-Front</td></tr><tr><td>BL / W—BL</td><td>Left-Front</td></tr><tr><td>BL / R—BL / Y</td><td>Right-Rear</td></tr><tr><td>BL / W—BL</td><td>Left-Rear</td></tr></table> <ul style="list-style-type: none">● Does test lamp dimly flicker?		Wire Colors	Balance - Fade	BL / R—BL / Y	Right-Front	BL / W—BL	Left-Front	BL / R—BL / Y	Right-Rear	BL / W—BL	Left-Rear	Yes	▶ REFER to Speaker Diagnosis and Testing in this section.
Wire Colors	Balance - Fade												
BL / R—BL / Y	Right-Front												
BL / W—BL	Left-Front												
BL / R—BL / Y	Right-Rear												
BL / W—BL	Left-Rear												
		No	▶ SERVICE / REPLACE radio.										
A46	VERIFY CONDITION AT EACH SPEAKER												
<ul style="list-style-type: none">● Check for sound at each speaker.● Is there sound from one or more speakers?		Yes	▶ GO to A50.										
		No (no sound from any speaker)	▶ GO to A47.										
A47	CHECK FOR SHORTS TO GROUND												
<ul style="list-style-type: none">● Key OFF.● Disconnect the interior fuse panel, radio, and amplifier.● Measure the resistance of the Y / BK wire between the interior fuse panel connector and ground.● Is the resistance less than 5 ohms?		Yes	▶ SERVICE the Y / BK.										
		No	▶ GO to A48.										
A48	CHECK POWER SUPPLY AMPLIFIER												
<ul style="list-style-type: none">● Key OFF.● Locate and disconnect the amplifier connector.● Measure the voltage on the Y / BK wire at the amplifier connector.● Is the voltage greater than 10 volts?		Yes	▶ GO to A49.										
		No	▶ SERVICE the Y / BK wire.										
A49	CHECK AMPLIFIER GROUND												
<ul style="list-style-type: none">● Key OFF.● Disconnect the amplifier connector.● Measure the resistance between the R / W wire at the amplifier connector and ground.● Is the resistance less than 5 ohms?		Yes	▶ GO to A50.										
		No	▶ SERVICE the R / W wire.										

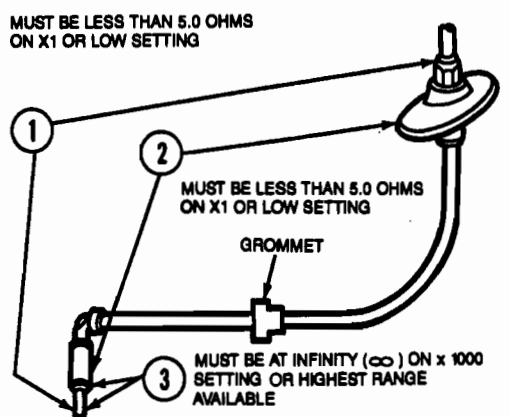
DIAGNOSIS AND TESTING (Continued)

PINPOINT TEST A—AUDIO SYSTEM (Continued)

TEST STEP		RESULT	ACTION TO TAKE
A50	CHECK WIRES TO SPEAKERS		
<ul style="list-style-type: none"> ● Key OFF. ● Locate and disconnect the inoperative speaker connector(s). ● Disconnect the 14-pin amplifier connector. ● Measure the resistance of the following wires between the amplifier connector and ground. ● Measure the resistance of the following wires between the amplifier connector and the speaker connectors. 		Yes No	<ul style="list-style-type: none"> ▶ GO to A51. ▶ SERVICE the wire(s) in question.
Pin Number	Wire Color	Circuit Function	
4A	O/GN - BL/W	LH Front (-)	
4B	BL/W - BL	LH Front (+)	
4C	GN/BL - BL/W	LH Rear (-)	
4D	PK/BL - BL	LH Rear (+)	
4E	W/GN - BL/R	RH Front (-)	
4F	GN/O - BL/Y	RH Front (+)	
4G	O/R - BL/R	RH Rear (-)	
4H	W/P - BL/Y	RH Rear (+)	
<ul style="list-style-type: none"> ● Is each resistance greater than 10,000 ohms between the amplifier connector and ground, and less than 5 ohms between the amplifier connector and the speaker connector(s)? 			
A51	CHECK WIRES BETWEEN RADIO AND AMPLIFIER		
<ul style="list-style-type: none"> ● Key OFF. ● Locate and disconnect the amplifier 10-pin connector. ● Disconnect the radio input and output connectors. ● Measure the resistance of the following wires between the radio and ground. ● Measure the resistance of the following wires between the radio and amplifier. 		Yes No	<ul style="list-style-type: none"> ▶ GO to A52. ▶ SERVICE the wire(s) in question.
Pin Number	Wire Color	Circuit Function	
1A	BL	Amp Mute	
2A	LG	LH Front Channel Input	
2B	W/R	RH Front Channel Input	
2C	W/O	LH Front Channel Return	
2D	BR	RH Front Channel Return	
2E	LB/BK	LH Rear Channel Input	
2F	PK/W	RH Rear Channel Input	
2G	Y	LH Rear Channel Return	
2H	LB	RH Rear Channel Return	
<ul style="list-style-type: none"> ● Is each resistance greater than 10,000 ohms between the radio connectors and ground, and less than 5 ohms between the radio connectors and the amplifier connectors? 			
A52	SUBSTITUTE AMPLIFIER		
<ul style="list-style-type: none"> ● Key OFF. ● Substitute a known good amplifier. ● Do all speakers operate normally? 		Yes No	<ul style="list-style-type: none"> ▶ SERVICE the amplifier at an authorized service center. ▶ REPLACE the inoperative speaker(s).

DIAGNOSIS AND TESTING (Continued)**Antenna with Cable and Mast**

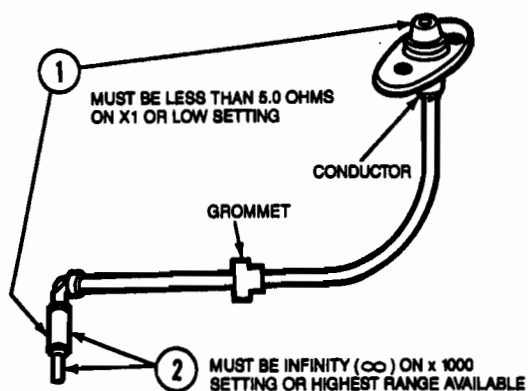
With antenna cable installed on vehicle and cable unplugged from radio, check resistance with ohmmeter test probes contacting antenna at indicated points. If results are satisfactory, antenna assembly is in good condition. If not, check antenna cable and base separately.



L6701-A

Antenna Cable and Base

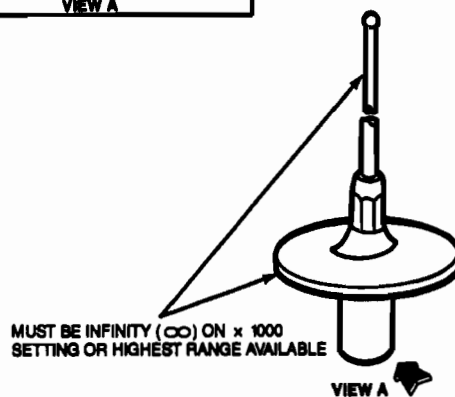
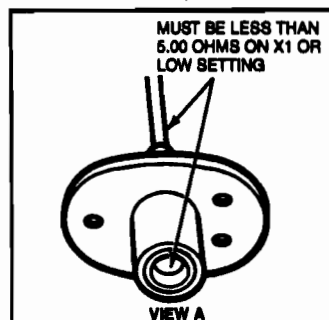
With antenna cable unplugged from radio, check resistance at indicated points on cable. If results are satisfactory, cable is in good condition. If not, replace with new cable.



L6702-A

Antenna Base and Mast

With cable disconnected from antenna base, check resistance at indicated points on base. If results are satisfactory, install new cable. If either test is unsatisfactory, install new base assembly only; mast should be acceptable.



L6703-A

Speakers

Stereo radios have both speakers on one side of the vehicle (right or left) powered by the same circuitry in conventional radios. Electronic radios power the front speakers separately from the rear speakers. Therefore if only one speaker is inoperative, the radio chassis is not likely to be damaged.

DIAGNOSIS AND TESTING (Continued)**CONDITION CHART — SPEAKER SYSTEM**

CONDITION	POSSIBLE SOURCE	ACTION
<ul style="list-style-type: none"> One or More Speakers Are Not Functioning or Are Distorted During Radio Check 	<ul style="list-style-type: none"> Damaged radio or cassette. Damaged speaker. 	<ul style="list-style-type: none"> Go to B1.

PINPOINT TEST B—SPEAKER SYSTEM

TEST STEP		RESULT	ACTION TO TAKE
B1	SUBSTITUTE SPEAKER AND BYPASS SPEAKER WIRING HARNESS		
	<ul style="list-style-type: none"> Unplug radio from speaker wiring harness. Set radio balance and fader controls to their center position. Using a speaker of known good quality, jumper the pins corresponding to the suspect speaker of the radio connector to the test speaker. Is sound from test speaker OK? 	Yes No	GO to B2. REMOVE radio for service.
B2	SUBSTITUTE SPEAKER USING SPEAKER WIRING HARNESS		
	<ul style="list-style-type: none"> Reconnect radio to speaker wiring harness. Disconnect suspect speaker from speaker wiring harness and connect a test speaker of known good quality. Is sound from test speaker OK? 	Yes No	REPLACE suspect speaker. SERVICE speaker wiring harness as outlined. REFER to Section 15-01.

Poor Sound Quality

Experience has shown that rattles and buzzes are caused most often by loose speakers or speaker mountings, speaker grilles or trim panels. Check for tightness of mountings and trim pieces.

Distortion can be caused by the speaker, radio chassis or wiring. Distortion caused by damaged wiring is most often accompanied by lower than normal sound output.

Buzzes, rattles, distorted or weak sound from speakers is often caused by bent sheet metal around the speaker opening, or missing or loose attaching hardware or speaker covers. Bent sheet metal should be straightened and the speaker re-installed. Loose attaching hardware should be finger-tight plus approximately one full turn. Be careful not to overtighten hardware as this may bend or deform the speaker basket, causing buzzes and / or distorted sound.

NOTE: Shorted wiring does not always result in a completely dead speaker. If a diagnostic inspection indicated that the condition is related to the speakers or wiring, refer to Radio Diagnosis as outlined.

SECTION 15-01 Radio and Tape Chassis

SUBJECT	PAGE	SUBJECT	PAGE
REMOVAL AND INSTALLATION		SPECIAL SERVICE TOOLS	15-01-3
Premium Sound Amplifier.....	15-01-2	VEHICLE APPLICATION	15-01-1
Radio.....	15-01-1		

VEHICLE APPLICATION

Capri.

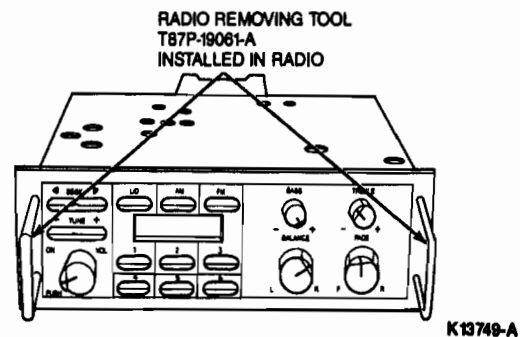
REMOVAL AND INSTALLATION

Radio

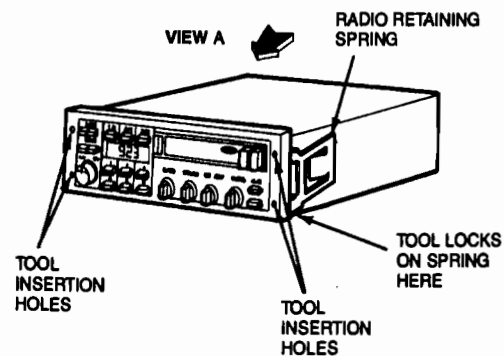
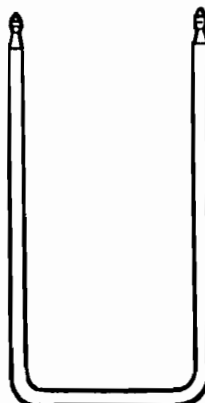
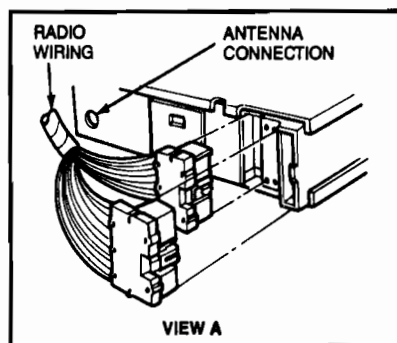
Non-Premium Sound

Removal

1. Remove heater / radio bezel. Refer to Section 01-12.
2. Insert Radio Removing Tool T87P-19061-A or equivalent into four removal holes in face of radio.
3. Slide radio toward rear of vehicle to gain access to wiring harnesses.



4. Disconnect two harness connectors.
5. Disconnect antenna.
6. Remove nut securing retaining radio rear support.
7. Remove radio rear support.



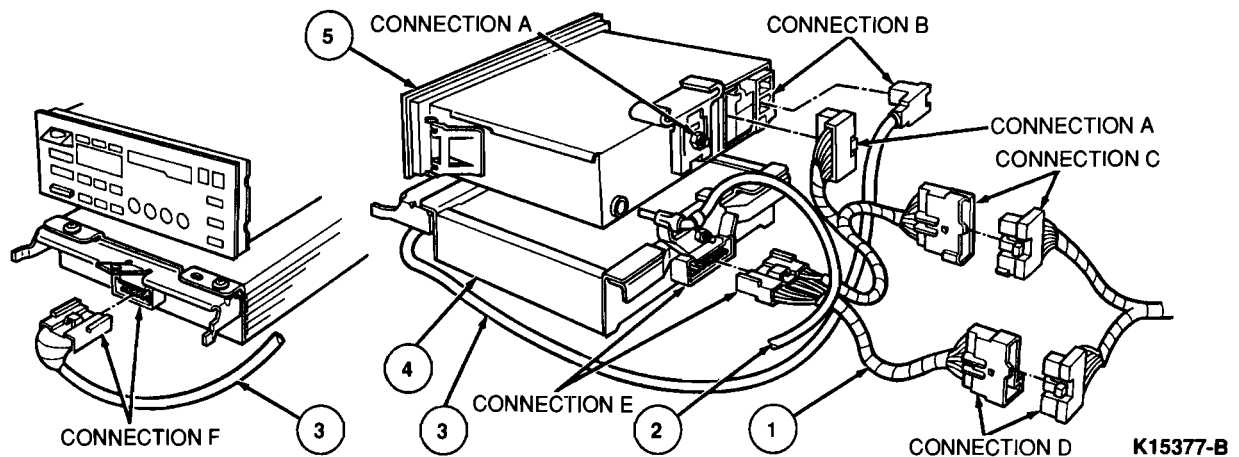
L6695-A

REMOVAL AND INSTALLATION (Continued)**Installation**

1. Install radio rear support.
2. Install nut on stud retaining radio rear support.
3. Plug antenna lead into receptacle.
4. Connect two wire harness connectors into proper receptacles.
5. Slide radio assembly into slot, maintaining proper alignment.
6. Install heater / radio bezel. Refer to Section 01-12.

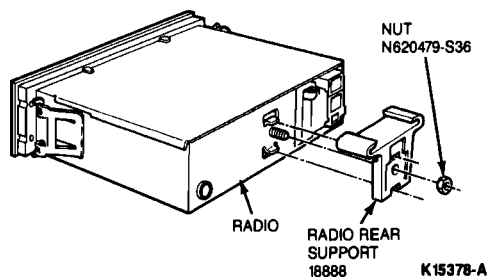
Premium Sound**Removal and Installation**

1. Remove heater / radio bezel. Refer to Section 01-12.
2. Insert Radio Removing Tool T87P-19061-A or equivalent into four removal holes in face of radio.
3. Slide radio out from track.
4. Disconnect antenna cable.
5. Disconnect shielded cable from radio (connection B).



Item	Part Number	Description
1	15041	Wiring Assy
2	—	Antenna Cable
3	14588	Shielded Cable
4	—	Amplifier
5	—	Premium Sound Radio

6. Disconnect premium sound adapter harness to radio (connection A).
7. Remove radio rear support retaining nut and support.

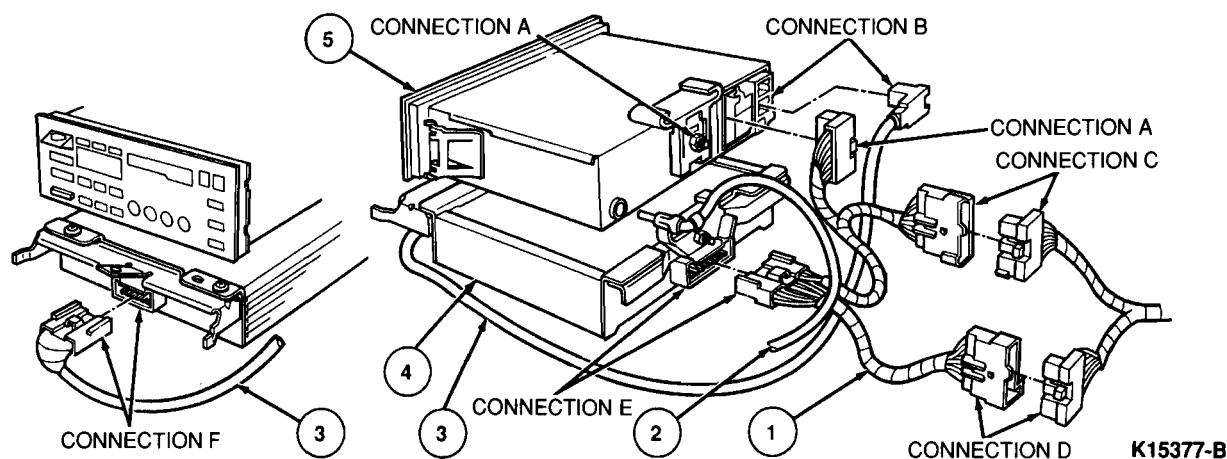


8. To install, reverse Removal procedure.

Premium Sound Amplifier**Removal and Installation**

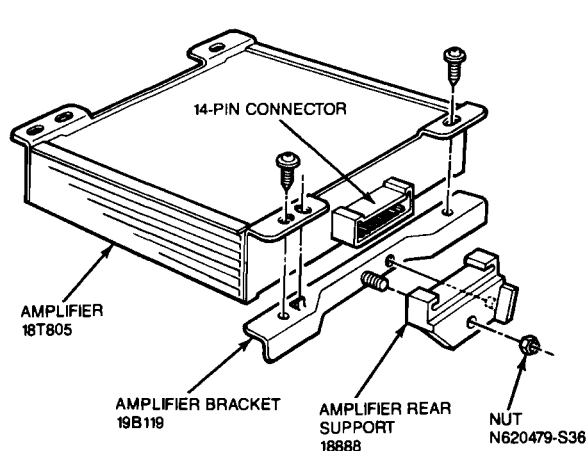
1. Remove heater / radio bezel. Refer to Section 01-12.
2. Remove screw at top of opening, retaining amplifier to instrument panel.
3. Disconnect shielded amplifier connector from front of amplifier (connection F).
4. Slide amplifier out from track while holding shielded cable aside.
5. Disconnect premium sound adapter to amplifier 14-pin connector (connection E).

REMOVAL AND INSTALLATION (Continued)

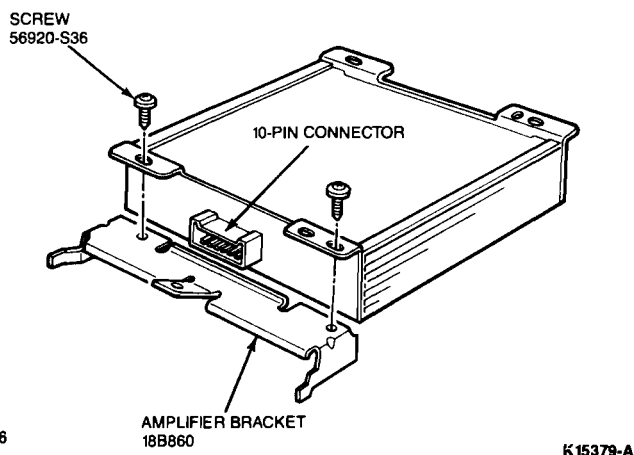


Item	Part Number	Description
1	15041	Wiring Assy
2	—	Antenna Cable
3	14588	Shielded Cable
4	—	Amplifier
5	—	Premium Sound Radio

6. Remove amplifier rear support from amplifier bracket.



7. Remove amplifier brackets (18B860 and 19B119) from amplifier. Notice that bracket (19B119) is attached to 14-pin connector side of amplifier.



8. To install, reverse Removal procedure.

SPECIAL SERVICE TOOLS

Tool Number	Description
T87P-19061-A	Radio Removing Tool

SECTION 15-02 Antenna

SUBJECT	PAGE	SUBJECT	PAGE
REMOVAL AND INSTALLATION		VEHICLE APPLICATION	15-02-1
Antenna Mast and Base.....	15-02-1		

VEHICLE APPLICATION

Capri.

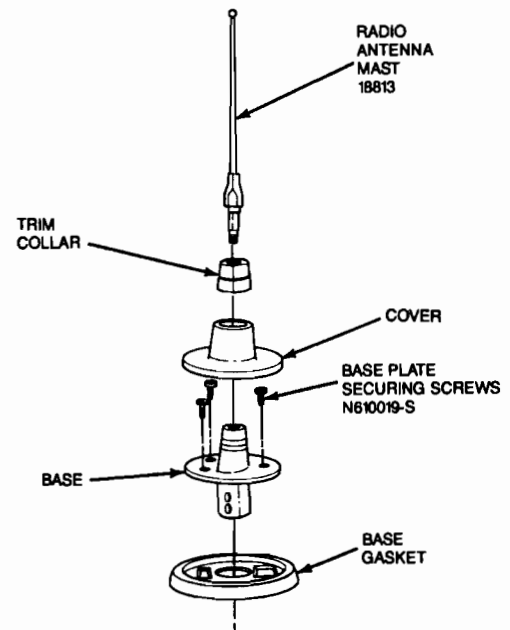
REMOVAL AND INSTALLATION

Antenna Mast and Base

Removal

1. Using a wrench, carefully unscrew and remove the antenna mast.
2. Remove the trim collar.
3. Carefully pry off cover.
4. Remove retaining screws and antenna base. Disconnect wiring from antenna base.
5. Remove antenna base gasket.

NOTE: Take care to prevent antenna cable from falling into fender well.



K12971-A

Installation

1. Position base gasket.
2. Connect antenna base to antenna wire and position base onto gasket.
3. Install base retaining screws and tighten.
4. Snap cover and trim collar into place.
5. Install and tighten antenna mast.

SECTION 15-03 Speakers

SUBJECT	PAGE	SUBJECT	PAGE
REMOVAL AND INSTALLATION		VEHICLE APPLICATION	15-03-1
Speakers, Door Mounted	15-03-1		
Speakers, Rear Seat	15-03-2		

VEHICLE APPLICATION

Capri.

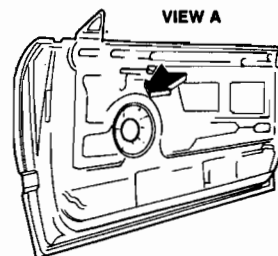
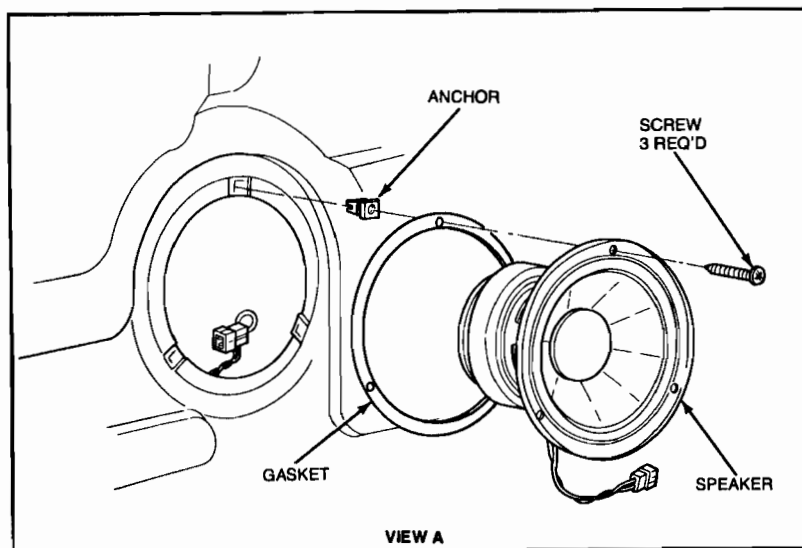
REMOVAL AND INSTALLATION

Speakers, Door Mounted

Removal

1. Remove the door trim panel. Refer to Section 01-05.

2. Remove three screws retaining the speaker to the speaker grille. Remove speaker and gasket. Disconnect wiring.



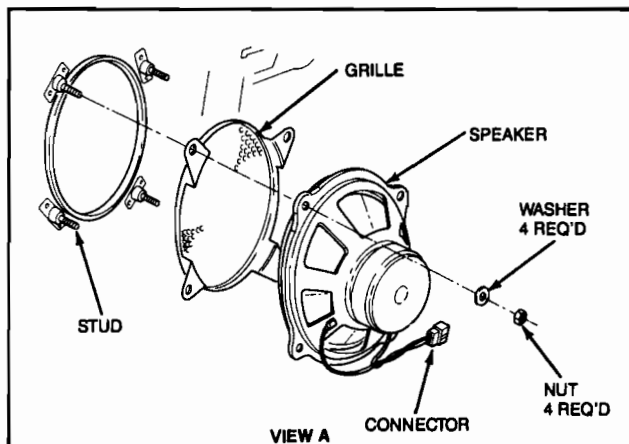
L6728-A

Installation

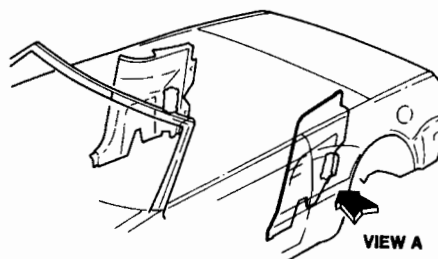
1. Connect wiring.
2. Position speaker with gasket and install three retaining screws.
3. Install the door trim panel. Refer to Section 01-05.

REMOVAL AND INSTALLATION (Continued)**Speakers, Rear Seat****Removal**

1. Remove the rear inner fender covers located in the convertible top storage compartment. Refer to Section 01-05.



2. Remove the four nuts and washers retaining the speaker to the speaker grille. Remove speaker and grille. Disconnect wiring.



L6727-A

Installation

1. Connect wiring.
2. Position speaker with grille and install four retaining washers and nuts.

3. Install the inner fender covers. Refer to Section 01-05.