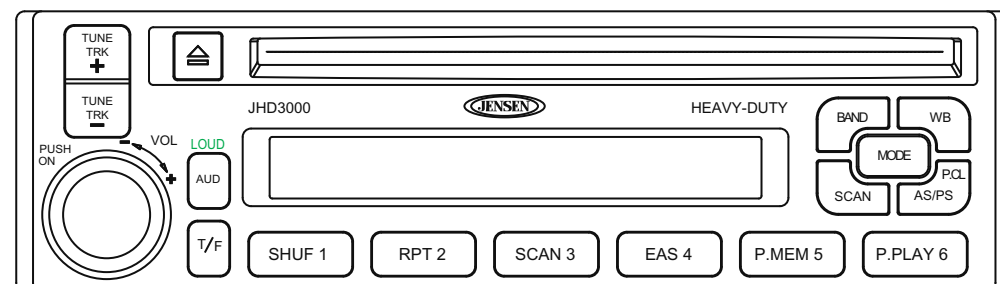




HEAVY DUTY
SYSTEMS

JHD3000

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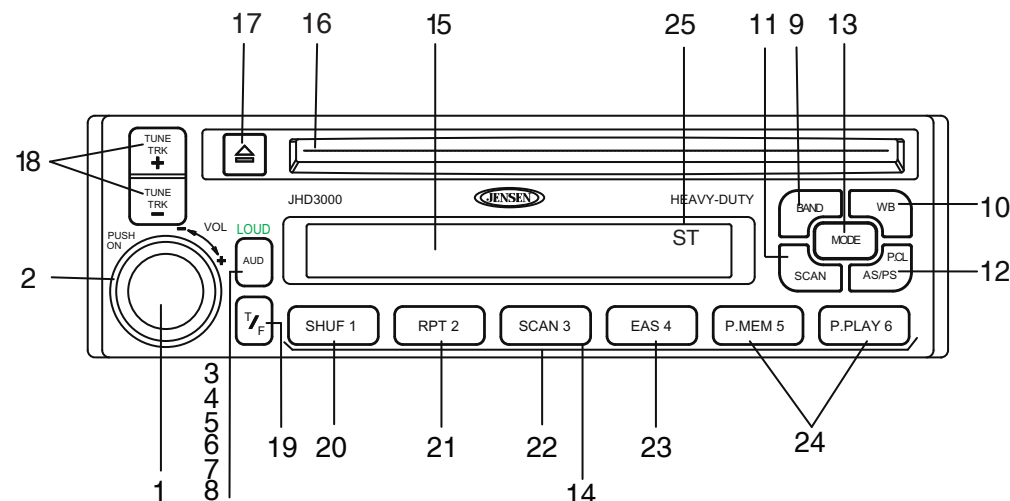
**AM/FM RADIO WITH COMPACT DISC PLAYER,
WEATHER BAND AND QUARTZ CLOCK**

OWNERS MANUAL

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OPERATING INSTRUCTIONS



① POWER ON-OFF/VOLUME CONTROL(PUSH ON/VOL)

Press and release this button to turn the unit on or off. When on, rotate the control clockwise to increase the volume level. If the ignition switch is on, the radio will also automatically turn on when a compact disc is inserted and begin disc play.

② VOLUME CONTROL(VOL)

To increase the volume level, rotate the VOL control clockwise. VOL: will appear and the volume level will be shown on the display panel from a minimum of VOL: 0 to a maximum of VOL:40. To decrease the volume level, rotate the VOL control counterclockwise. The display will automatically return to the normal indication 5 seconds after the last volume adjustment or when another function is activated. This control is also used in conjunction with the Select (AUD)control button ③ to adjust the bass, treble, balance and fader levels as described in ④, ⑤, ⑥ and ⑦.

③ AUD CONTROL BUTTON

This button is used to select the audio function (bass, treble, balance, fader or volume). Pressing the AUD button accesses the desired function whose setting is adjusted using the VOL ② control. Pressing the button will first display the bass adjustment (BAS: on the display panel), then treble adjustment (TRE: will appear on the display), balance (BAL:), fader(FAD:) and then volume (VOL:). The display will automatically return to the normal indication 5 seconds after the last adjustment or when another function is activated.

OPERATING INSTRUCTIONS

④ BASS CONTROL

Select the Bass mode by pressing the AUD button ③ so the BASS: indication appears on the display panel. Within 5 seconds of choosing the BASS function, turn the knob counterclockwise to decrease the bass response or clockwise to increase it as desired. The level will be shown on the display panel from a minimum of BAS: -7 to a maximum of BAS: +7 (0 indicates flat response). The display will return to the normal indication 5 seconds after the last adjustment or when another function is activated.

⑤ TREBLE CONTROL

Select the Treble mode by pressing the AUD button ③ so the TRE: indication appears on the display panel. Within 5 seconds of choosing the Treble mode, rotate the VOL control ② counterclockwise to decrease the treble response or clockwise to increase it as desired. The level will be shown on the display panel from a minimum of TRE: -7 to a maximum of TRE: +7 (0 indicates flat response). The display will automatically return to the normal indication 5 seconds after the last adjustment or when another function is activated.

⑥ LEFT/RIGHT BALANCE CONTROL

To adjust the left-right speaker balance, first select the Balance mode by pressing the AUD button ③ so the BAL: indication appears on the display panel. Within 5 seconds of choosing the Balance mode, rotate the VOL control ② counterclockwise to adjust the stereo balance to the left channel speakers or clockwise to adjust it to the right channel speakers. The balance position will be shown on the display panel from BAL:L9 (full left) to BAL:R9 (full right). When the volume level between the left and right speakers is equal, 0 will be shown on the display panel. The display will automatically return to the normal indication 5 seconds after the last adjustment or when another function is activated.

⑦ FRONT/REAR FADER CONTROL

To adjust the front-rear speaker balance, first select the Fader mode by pressing the AUD button ③ so the FAD: indication appears on the display panel. Within 5 seconds of choosing the Fader mode, rotate the VOL control ② clockwise to adjust the front-rear speaker balance to the front speakers or counterclockwise to adjust it to the rear speakers. The fader position will be shown on the display panel from FAD:R9 (full rear) to FAD:F9 (full front). When the level between the front and rear speakers is equal, 0 will be shown on the display panel. The display will automatically return to the normal indication 5 seconds after the last adjustment or when another function is activated.

OPERATING INSTRUCTIONS

⑧ LOUDNESS CONTROL

Pressing the AUD button for >2s will alternate between Loudness ON/OFF.

⑨ AM/FM BAND SELECTOR (BAND)

During radio operation, each time this button is pressed the radio band is changed. The indication AM1, AM2, FM1, FM2 or FM3 will appear on the display panel according to your selection. When FM reception is weak and/or AM1 or AM2 is selected, the stereo (ST) indication will disappear from the display.

⑩ WEATHER BAND (WB) BUTTON

The radio provides access to the weather band for local weather information. Press the WB button to switch the radio from AM/FM reception to the weather band. WB will appear on the display. Pressing the TUNE + or - button for more than 2s will search the weather band for a strong signal. Pressing the TUNE + or TUNE - button will now access weather channels up or down. When the WB button is pressed again, radio operation returns to the previous FM or AM station, and WB1-7 disappears from the display. It is normal to only receive one WB signal in a given location due to the design of the broadcast system.

⑪ .STATION SCAN SELECTOR

Press this button to automatically scan the FM or AM radio band in the upward direction. When a reasonably strong station is detected, the station frequency is detected and the station frequency is displayed for 5s. If no other button is pressed within this time frame, the scan operation resumes and stops at the next available station. This operation will continue until the SCAN button is pressed again to halt the scan mode.

⑫ .PRE-SET SCAN(PS) / AUTO-STORE TUNING (AS) / PROGRAM CLEAR(P.CL)

During radio operation, press this button momentarily to scan the stations Pre-Set into each AM band and each FM band. The unit will stop at each Pre-Set station (the Pre-Set station number on the display panel will flash during Pre-Set Scan operation). Press the button again to stop Pre-Set Scan operation and remain on the selected frequency. If no buttons are pressed during the scan the unit will continue to scan the band in use. Pressing and holding the button for longer than 2 seconds will activate the Auto-Store(AS) tuning feature which will automatically scan and enter up to 6 local area stations into the Pre-Set memories on the band in use.

OPERATING INSTRUCTIONS

If you have already set the Pre-Set memories to your favorite stations, activating the Auto-Store Tuning feature will erase those stations and enter the new local ones. This feature is most useful when traveling in a new area where you are not familiar with the local stations. The program clear function is used during CD player operation to clear any disc program tracks committed to memory using the PMEM button. (Refer to item 24)

13. MODE SELECTOR (MODE) BUTTON

This button is used to select the radio or the CD player playback and AUX mode. Each press of the button will select a different mode as indicated on the display panel. During CD player operation, this button may be used to change to AUX or Radio without ejecting the disc. The CD in indication will remain on the display panel to show that a disc is still loaded in the unit. Press the button again to return to radio mode.

14. STATION PRE-SET MEMORIES

To set any of the 6 Pre-Set memories in each band, use the following procedure:

1. Turn the radio on and select the desired band.
2. Select the first station to be Pre-Set using the TUNE TRK +/- (manual mode) or Auto-Store (AS) Controls.
3. Press the Pre-Set button to be set and continue to hold it in for approximately 2 seconds. The Pre-Set number (M1-6) will appear on the display panel, indicating that the station is set into that Pre-Set memory position. The station can now be recalled at any time by pressing that button.
4. Repeat the above procedure for the remaining five Pre-Sets on that band and for the other four bands on the unit.

15. LIQUID CRYSTAL DISPLAY PANEL

The Liquid Crystal Display (LCD) panel displays the frequency, time, and activated functions.

NOTE: It is a characteristic of LCD panels that if subjected to cold temperatures for an extended period of time, they may take longer to illuminate than under normal conditions. In addition, the visibility of the numbers on the LCD may slightly decrease. The LCD read-out will return to normal when the temperature increases to a normal range.

OPERATING INSTRUCTIONS

16. DISC SLOT

Gently insert the disc into the slot (label surface facing up) until the soft loading mechanism engages and pulls the disc in. :CD, total disc tracks and playing time momentarily appear on the display, then CD in, the TRACK number (1) and the elapsed playing time (00:00) of the disc are displayed.

CAUTION: This unit is designed for play of standard 5" (12cm) compact discs ONLY. Do not attempt to use 3" (8cm) CD-Singles in this unit, either with or without an adapter, as damage to the player and/or disc can occur. Such damage will not be covered by the warranty on this product.

17. DISC EJECT (EJECT)

Disc play is stopped and the disc is ejected when the eject (EJECT) button is pressed. Radio operation will then automatically resume. If the disc is not removed from the unit within 15 to 20 seconds of being ejected, it will automatically be reloaded into the unit to prevent it from being accidentally damaged (CD in will appear on the display panel to indicate that a disc is loaded in the player). The disc will not be played. Pressing the MODE button will reload the disc and play it automatically. Press the MODE button again to stop disc play and choose radio operation.

18. MANUAL UP/DOWN TUNING (TUNE TRK+ / TUNE TRK-)

Momentarily pressing and releasing either TUNE/TRK button will activate the manual Tuning function, whereby FM stations may be selected in 200KHz increments, up or down, and AM station may be in 10KHz increments. Pressing this button for 2s will activate the automatic seek. The radio will seek the next station in the + or - direction and stop and remain at that frequency. During the upward or downward seek operation, LOC (local) appears on the display panel, and then disappears when a strong stereo station is encountered (ST appears on the display).

19. TIME/FREQUENCY SELECTOR (T/F)

During radio operation, press this button to show the frequency display on the quartz clock, radio operation will continue uninterrupted. The time display will return 5 seconds later and will remain until another band and/or frequency is selected. The frequency/band display will appear for approximately 5s, and then revert to the time display as before.

OPERATING INSTRUCTIONS

⑳ SHUFFLE PLAY SELECTOR (SHUF)

During disc play, press this button to play the tracks on the disc in a random shuffled order (SHUF will appear on the display panel). In Shuffle Play mode, the TUNE/TRK + / - function ㉑ will also select tracks in random order instead of the normal progression. The Shuffle play mode can be cancelled by pressing the button again (SHUF indication will disappear from the display panel) or by activating the Repeat Play or Scan functions.

㉑ REPEAT PLAY SELECTOR (RPT)

During disc play, press this button to repeat the play of the selected track (RPT will appear on the display panel). Play of the track will continue to repeat until the button is pressed again and the RPT indication disappears from the display panel. Repeat Play mode will also be canceled by activating the Scan or Shuffle Play functions.

㉒ TRACK SCAN SELECTOR (SCAN)

During disc play, press this button to play the first 10 seconds of each track on the disc (SCAN will appear on the display panel) when a desired track is reached, press the SCAN button again to cancel the function (SCAN will disappear from the display panel) and play of the selected track will continue. Scan mode will also be canceled by activating the Shuffle or Repeat Play functions.

㉓ EAS CONTROL

In CD mode, a long press of this button will turn the EAS (Electronic Anti-Skip function) on/off.

㉔ PROGRAM CD TRACKS CD MEM/P.PLAY/P.CL

During disc play, the programming function can select up to 10 CD tracks to play in any order. The program works by allowing you to select a track number for each spot in the playing sequence. To begin programming, select a desired track number on the disc by using the TUNE TRK +/- button; this initiates an up/down scan of the CD tracks. When the desired track is found, press and hold the P.MEM button until P.1 appears flashing on the display; then press the button again to lock the chosen track into memory location 1. Repeat this procedure for each of the other 9 selected tracks in the desired order; P2-9 will appear on the display. To play the CD tracks in the programmed order, press the P.PLAY button. The selected track in memory location P.1 will begin play and P.1 will appear on the display; the remaining programmed tracks on the CD will follow in the desired order. To clear the programming CD tracks, press the P.CL button for more than 2 seconds; CLR will appear flashing on the display, then press P.CL again, CLR will disappear from the display and the programmed tracks will be erased.

OPERATING INSTRUCTIONS

㉕ MONO/STEREO OPERATION

During FM radio operation, when the signal is broadcast in stereo, the stereo mode is indicated by the ST indicator on the display panel. If the FM signal is broadcast in monaural instead of stereo, the stereo indication will disappear; the stereo indication will also disappear when the signal strength is greatly diminished, or when a station on either AM band is selected.

SETTING THE CLOCK

SETTING THE CLOCK

1. Switch the vehicle ignition "on" and press radio power switch off. The radio will display the time of day.
2. Press and hold the T/F button until the time (hour) display begins to flash.
3. With the hour display flashing, release the T/F button and then press the TUNE - button to decrement the hours indication, or the TUNE + button to increment the hour indication.
4. Press and release the T/F button again so the minutes display begins to flash. Adjust the minutes display in the same manner described for the hours indication in step 3.
5. Five seconds after the last hour or minute adjustment is made, the time will be set into the unit and the time indication remains steady. To return to the frequency display, press radio power switch on. The last preset radio frequency appears on display. Five seconds later, the display will return to the time indication.

CARE AND MAINTENANCE

The radio section of your new sound system does not require any maintenance. We recommend that you keep this manual for reference on the many features found in this unit as well as how to set the clock.

The compact disc player section also requires no routine maintenance, but proper understanding of its use and handling will help you obtain maximum enjoyment of its capabilities. The following points should be observed.


- When cleaning the interior of the vehicle, do not get water or cleaning fluids on the unit.
- The CD player is a precision instrument and will not operate properly in extreme heat or cold. In case of such conditions, wait until the interior temperature of the vehicle reaches a normal temperature before use.
- If the temperature inside the player gets too hot, a protective circuit will automatically stop play of the disc. In this case, allow the unit to cool off before operating the player again.
- Never insert anything other than a 5 " (12cm) compact disc into the player as the mechanism can be damaged by foreign objects.
- Do not attempt to use 3 " (8cm) CD-Single discs in this unit, either with or without an adaptor, as damage to the player and/or disc may occur. Such damage will not be covered by the Warranty on this product.
- When not using the disc player, always remove the compact disc. Do not leave an ejected disc sitting in the disc slot as this can expose it to sunlight and other causes of damage.

HANDLING COMPACT DISCS

- Do not attempt to open the unit chassis. There are no user serviceable parts or adjustments inside.
- When the vehicle warms up during cold weather or under damp conditions, moisture may condense on the lens of the disc player. Should this occur, the player will not operate properly until the moisture has evaporated.
- The unit is designed with a vibration dampening CD mechanism to minimize interruption of disc play due to normal vibration in a moving vehicle. When driving on very rough roads, however, occasional sound skips may occur. This will not scratch or damage the disc and normal play will resume when the rough conditions cease.

HANDLING COMPACT DISCS

Dirt, dust, scratches, and warpage can cause skips in the playback and deterioration of sound quality. Please follow these guidelines to take care of your compact discs;

- Use only compact discs with the mark . The logo consists of the word "COMPACT" above a stylized "CD" with "DIGITAL AUDIO" below it.
- Fingerprints, dust, and dirt should be carefully wiped off the disc's playing surface (shiny side) with a soft cloth. Wipe in a straight motion from the inside to the outside of the disc.
- Never use chemicals such as record sprays, household cleaners or thinner to clean compact discs. Such chemicals can irreparably damage the disc's surface.
- Discs should be kept in their storage cases when not in use.
- Do not expose discs to direct sunlight, high temperatures or high humidity for extended periods.
- Do not stick paper, tape, or labels on the disc surfaces nor write on them with any type of marker.

AM AND FM RECEPTION IN A MOBILE ENVIRONMENT

AM AND FM RECEPTION IN A MOBILE ENVIRONMENT

Although you may be familiar with both AM and FM reception in your home, you will experience notable differences in reception while driving. Both AM and FM provide excellent listening enjoyment and supply the diversified entertainment necessary to relieve the boredom of hours behind the wheel. FM reception, although unique in its characteristics while driving, provides a different listening experience compared to that of AM. The few reception inconveniences common to FM are compensated by the rich sound quality of its wide frequency response and stereo effect. Your new AM/FM radio has been built to the strictest engineering standards available today and through quality components and construction will provide maximum performance under all conditions. A few minutes reading this section will enable you to obtain the most from the unit and answer your questions about the differences between mobile AM and FM reception.

SOME FACTS ABOUT AM AND FM RECEPTION

1. **RECEPTION IN TUNNELS:** Although you will lose AM reception when driving through tunnels and large bridges, it is common to continue to receive FM reception under the same conditions.
2. **THE NUMBER OF STATIONS IN YOUR AREA:** Depending on your location, you may find that you can receive a greater number of AM stations in your area than FM stations. In most urban and suburban areas, the numbers of AM and FM stations are comparable.
3. **RECEPTION DURING STORMS:** Local electrical thunderstorm activity often produces sharp static sound when listening to AM stations although you will find that FM is unaffected.
4. **ELECTRICAL INTERFERENCE:** When listening to AM stations, you may experience some buzzing sounds or static when passing roadside electric power lines which do not interfere with FM reception. Conversely, FM reception may be affected by electrical noise from passing cars and trucks while AM reception is not affected.
5. **FM RECEPTION RANGE:** FM reception range is usually limited to about 50 miles from the broadcast station. FM signals radiate straight out from the broadcast antenna. They do not follow the earth's curve and are not reflected back to the earth by the atmosphere, resulting in "line-of-sight" reception range.

FM RECEPTION WHILE YOU ARE DRIVING

6. **AM RECEPTION RANGE:** AM stations can often be received hundreds of miles from the broadcast station. AM signals follow the earth's curve and are easily reflected back to earth by the atmosphere. Therefore an AM signal may be more easily received far from the broadcast station antenna than an FM signal.

FM RECEPTION WHILE YOU ARE DRIVING

Since FM signals become weaker as you drive further from the broadcast station, you may experience flutter, noisy reception and fading in the poor signal fringe areas. Through the use of advanced circuitry in this radio, the Fringe Area has been greatly reduced, providing a larger reception range. Even with this improved circuitry however, eventually the FM signal will become too weak to provide quality reception. When this occurs, it is best to change to a stronger local FM station. Although FM signals are not reflected by the atmosphere, they are easily reflected by solid objects. This characteristic of FM signals can produce two different reception possibilities. First, an FM signal can "bounce" between tall buildings resulting in reception in areas where AM reception is not possible. Second, the same effect can result in the loss of an FM signal if a large obstruction such as a mountain or building is located between you and the FM broadcasting antenna so that it blocks the signals. In such cases, it is possible to have poor FM reception even if you are not far from the broadcasting station.

SPECIFICATIONS

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Size:	2.08 " Hx7.25 " Wx6.25 " D 53mmx183mmx158mm	
Operating Voltage:	12 Volts DC.Negative Ground	
Output Power:	120 Watts Maximum(30 Wattsx4 Channels)	
Output Wiring:	Floating-Ground Type Designed for Use with 4 Speakers (Front and Rear Channels Cannot be Combined (Bridged) for use with 2 Speakers)	
Output Impedance:	Compatible with 4/8-Ohm Speakers	
Tuning Range:	AM: 520-1720kHz(10kHz Steps) FM:87.5-107.9MHz(200kHz Steps)	
Sensitivity:	AM:30dB	μ V
	FM:4.0dB	μ V
Signal-to-Noise Ratio:	60 dB	
FM Stereo Separation:	25 dB	
IF Rejection:	FM	75 dB
	AM	45 dB
Image Rejection:	FM	55 dB
	AM	60 dB
Bass Control	\pm 10dB@ 100kHz	
Treble Control	\pm 10dB@ 10kHz	
CD Frequency Response:	17 - 20kHz. +0/-3 dB	
CD Signal/Noise Ratio:	>65dB	
CD Channel Separation:	>65dB	
CD Distortion	0.2%	

*Specifications are subject to change without notice.

WARRANTY

90 DAY / 12 MONTH LIMITED WARRANTY

AUDIOVOX SPECIALIZED APPLICATION,LLC (the Company) warrants to the original retail purchaser of this product that should this product or any part thereof, under normal use and conditions, be proven defective in material or workmanship within 90 days from the date of original purchase, such defect(s) will be repaired or replaced (at the Company's option) without charge for parts and repair labor. After the initial 90 day period and for a period of 12 months from the date of original purchase, the Company will supply at no charge a replacement for any defective part(s), but will charge for the labor to repair the product. To obtain repair or replacement within the terms of this warranty, the product is to be delivered with proof of warranty coverage (e.g.dated bill of sale), specification of defect(s), transportation prepaid, to an approved warranty station, or the Company at the address shown below. This warranty does not extend to the elimination of externally generated static or noise, to the correction of antenna problems, to costs incurred for removal or reinstallation of the product, or to damage to any tapes, speakers, accessories, or electrical systems. This warranty does not apply to any product or part thereof which, in the opinion of the Company, has been damaged through alteration, improper installation, mishandling, misuse, neglect, or accident. THE EXTENT OF THE COMPANY'S LIABILITY UNDER THIS WARRANTY IS LIMITED TOTHE REPAIR OR REPLACEMENT PROVIDED ABOVE, AND, IN NO EVENT, SHALL THE COMPANY'S LIABILITY EXCEED THE PURCHASE PRICE PAID BY THE PURCHASER FOR THE PRODUCT. This warranty is in lieu of all other express warranties or liabilities. ANY IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, SHALL BE LIMITED TOTHE DURATION OF THIS WARRANTY. ANY ACTION FOR BREECH OF ANY WARRANTY HEREUNDER INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY MUST BE BROUGHT WITHIN A PERIOD OF 30 DAYS FROM THE DATE OF ORIGINAL PURCHASE. IN NO CASE SHALL THE COMPANY BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREECH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, WHATSOEVER. No person or representative is authorized to assume for the Company any liability other that expressed herein in connection with the sale of this product.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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Visit us at www.asaelectronics.com

WARRANTY

WIRING DIAGRAM

WARNING!

- **NEVER** COMBINE (BRIDGE) OUTPUTS FOR USE WITH 2 SPEAKERS.
- **NEVER** GROUND NEGATIVE SPEAKER LEADS TO CHASSIS GROUND.
- **FAILURE** TO WIRE EXACTLY AS SHOWN BELOW MAY CAUSE ELECTRICAL DAMAGE TO THE RADIO.

