

OWNER'S MANUAL

LS6500

AM/FM Stereo Receiver and Auto Reverse Cassette Player

Designed for In-Wall Installation of All Recreational Vehicles, Motor Homes and Mobile Housings

12 Volts DC

**LINEAR
SERIES®**

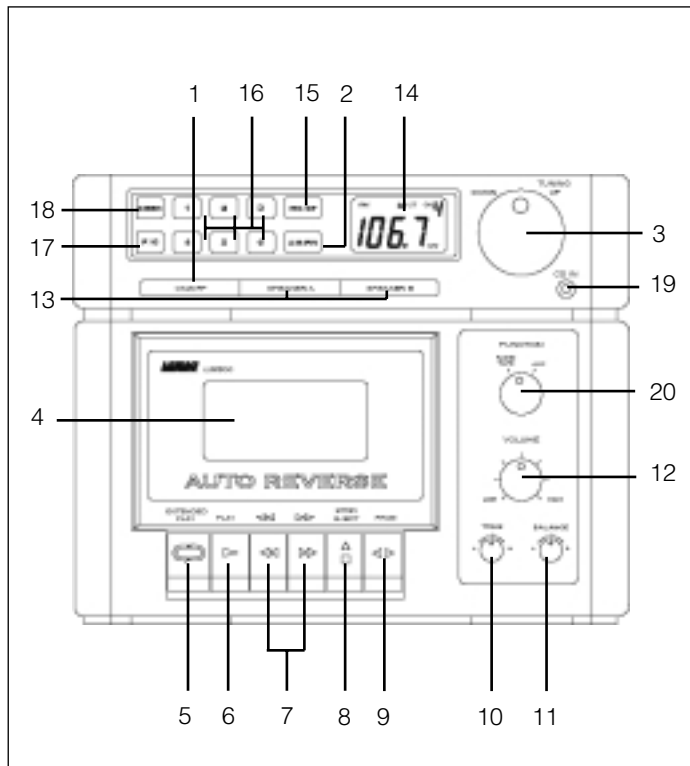
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INTRODUCTION

Please read all of the information in this booklet before using this unit to insure that you fully understand the capabilities of this unit.

WARNING! To prevent fire or electrical shock hazard, do not expose this product to rain or moisture, or remove cover or bottom screws. No user serviceable parts inside. Refer servicing to qualified service personnel.

CONTROLS AND FUNCTIONS



1. On/Off Button

Press this button in to turn the unit on. Press again to turn the unit off.

2. AM/FM Function Button

After turning the unit on, select the desired radio band (AM1, FM1, FM2) with this button.

3. Radio Station Tuning Knob

Rotate this knob to locate the radio station that you desire. Rotating it clockwise will take you up the frequency band and rotating it counter-clockwise will take you down the frequency band.

4. Cassette Carriage Door

By pressing the cassette stop/eject button (8) the door will open to allow you to insert a tape.

5. Extended Play Button



By pressing or releasing the extended play button, the cassette mechanism will automatically reverse the tape direction when the end of the tape is reached for uninterrupted continuous tape play or automatically stop the play of the cassette tape when the end of the tape is reached.

6. Play Button

After inserting a cassette tape press this button to begin tape play.

CONTROLS AND FUNCTIONS

7. Fast Forward and Rewind Buttons (◀▶▶▶)

Pressing the ◀▶ and ▶▶▶ buttons will fast advance the tape forward or backwards for quick searching. The LS6500's cassette mechanism is of the auto reverse type, you must first determine the direction the tape is playing. Located in the digital display area, you will notice tape play indication arrows   in order to fast forward the tape, press the button with the arrows printed on it that are pointing the same direction as the tape direction arrow in the digital display area. To fast rewind, press the button with the arrows that points in the opposite direction. To release the fast forward and rewind buttons once they have been pressed, press the stop/eject button (8).

8. Stop/Eject Button

To stop the tape from the play mode, press the stop/eject button once. When the tape play is stopped, the radio will begin to play automatically. To remove the tape from the cassette door/holder, press the stop/eject button once again and the tape door will open.

9. Program Button

The program control button is used to select which side of the tape is to be played. With the tape playing, press the program button and the tape play direction will change and the other side of the tape will be played. If the tape runs to the end, the tape play direction will automatically be reversed.

10. Tone Control Knob

This control will tailor the overall tone of the unit. Rotate this control clockwise for a higher tone and counter-clockwise for a lower tone.

11. Balance Control Knob

Rotating this knob from left to right will allow you to balance the sound to suit your taste.

12. Volume Control Knob

Rotate this knob to increase the volume of the unit.

13. Speaker A/B Selector Buttons

To play the "A" set of speakers, press the "Speaker A" button. To play the "B" set of speakers, press the "Speaker B" button. To play the "A" and "B" speakers at the same time, press both buttons in.

14. Digital Display Area

The digital display is an information center for the many functions of the LS6500. See "Digital Display Detail" for more information.

15. Mono/Stereo Button

Press the switch for FM stereo reception (switch in) and depress it for FM mono reception (switch out). The mono position on the switch will decrease the internal decoding noise during reception of a marginal weak FM stereo signal by by-passing the stereo signal decoder. Stereo operation is indicated by the  ST indicators located in the digital display area. Refer to the "Digital Display Detail" section of the manual for more details.

16. Station Recall Buttons

These six buttons are used to recall radio stations that have been programmed into the LS6500's memory. Pressing the button once will recall the station that was programmed to that button. For information on how to program these buttons see the "How to Preset Radio Stations" section of this manual.

17. Frequency/Clock Button (F/C)

This button is used to recall the radio frequency that you are listening to on the radio.

CONTROLS AND FUNCTIONS

18. Auto Tuning Seek Button

For automatic seek tuning, press the SEEK button once and the tuner will automatically seek to the next strongest station. When a strong station is picked up by the tuner the station will lock on and be displayed in the digital display area. To continue seeking stations, the SEEK button will have to be pressed again.

19. External CD Input

Plug one end of a CD jumper cable into this receptacle and plug the other end into the "line out" receptacle or "headphone" receptacle of your portable CD player.

It is strongly recommended to use the "line out" receptacle of the portable CD player as this connection will insure the best performance and sound quality. The LS6500's volume, balance and tone controls will operate normally when the CD input is used.

20. Radio/Tape, Aux Function Knob

After turning the unit on, select the desired playing mode with this knob.

Radio Operation

1. Press the power on/off button (1) in to turn the unit on.
2. Press the AM/FM band selector (2) to select the radio band you wish to listen to. FM1, FM2 or AM1 will appear in the display.
3. Use the manual tuning control (3) or the seek control button (18) to locate the station you wish to listen to.
4. Set the volume control knob (12), balance control knob (11), tone control knob (10) and speaker control buttons (13) to the positions that best suits your listening taste.

Entering Radio Stations into Memory

1. Press the on/off switch (1) to turn the unit on.
2. Press the AM/FM band selector (2) to select the memory group you want to store the radio stations in. For example, select AM1 or FM1 to preset stations into the first group for that band.
3. Use the manual tuning or seek tuning method to select the station you want to enter into memory.
4. Once the desired station is located, press and hold one of the 6 station recall buttons (16) down. The sound of the station will be off momentarily until the memory process is complete. Once the station is stored to memory, the station will continue to play. Release the button.
5. Repeat the procedure to store up to 6 radio stations for FM1 and AM1 then press AM/FM band selector button again to advance to FM2. 6 more stations can then be programmed into FM2.

Recalling Memorized Stations

1. Press the AM/FM band selector (2) to select the memory group FM1, FM2 or AM1 you want to recall the radio stations from.
2. Press and release the desired memory location 1, 2, 3, 4, 5 or 6 button to access memorized station.
Note: Do not hold the memory location button down. Doing this will store the current radio station into memory.

AUX Operation

1. Set function knob (20) to the AUX position.
2. Turn on the item connected to the AUX inputs.
3. The volume, tone and balance controls will operate normally.

OPERATION AND MAINTENANCE

Tape Operation

1. Press the on/off switch (1) to turn the unit on.
2. Press the stop/eject button (8) to open the cassette door (4).
3. Insert a cassette tape in the tape door guides with the tape opening down and close the tape door.
4. Press the play button (6) to start the tape playing.
5. Set the volume control, tone, balance knobs and speaker control buttons to the positions that best suits your listening taste.
6. To stop the tape play, press the stop/eject button (8) once.
7. To release the tape carriage door and eject the tape, press the stop/eject button (8) once again and the door will open.

Auto Reverse Operation

The LS6500 incorporates an auto reverse cassette tape mechanism. This type of mechanism will allow the tape to run continuously by reversing the play direction once the tape reaches it's end. In addition, the tape direction can be changed at any time by the user by pressing the program control button (9). The play direction of the tape is indicated by the tape direction arrows located in the digital display area.

Fast Forward and Fast Rewind Operation:

The fast forward and fast rewind buttons (7) are used in conjunction with the tape play direction indicators, located in the digital display area, to advance and rewind the tape. Each button is marked with a set of arrows. When the tape is playing, one of the play direction indicators will be shown to indicate the play direction. To fast forward the tape, press the button with the printed arrows that match the play direction indicator in the display. To rewind, press the button with the printed arrows that do not match the play direction indicator in the display. Regardless of which direction the tape is playing, you must match the arrows to fast forward the tape and mis match the arrows to rewind the tape. To release the fast forward and rewind buttons once they have been pressed, press the stop/eject button (8).

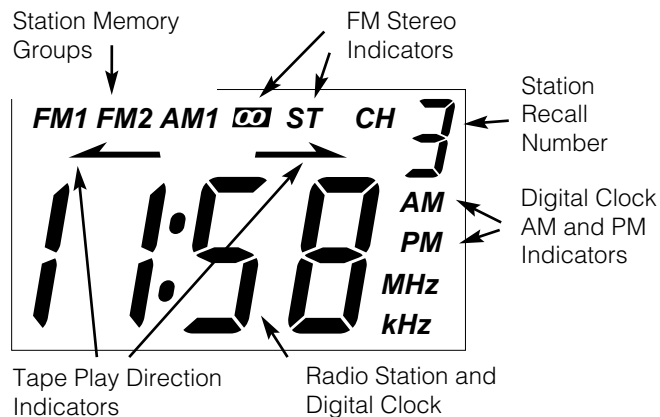
Setting the Clock

1. With the unit on, press and release the F/C button (17) to get the clock showing in the display.
2. Once the clock is displayed, press the F/C button again and hold it down.
3. While holding down the F/C button, rotate the tuning control knob (3) to the tune down position to set the hours and tune up to set the minutes.

Note: the LS6500 clock is the 24 hour type. When setting the hours, make sure that the correct indicator (AM or PM) is displayed.

4. When display shows the correct time, release the F/C button and the time will remain into memory.

Digital Display Detail



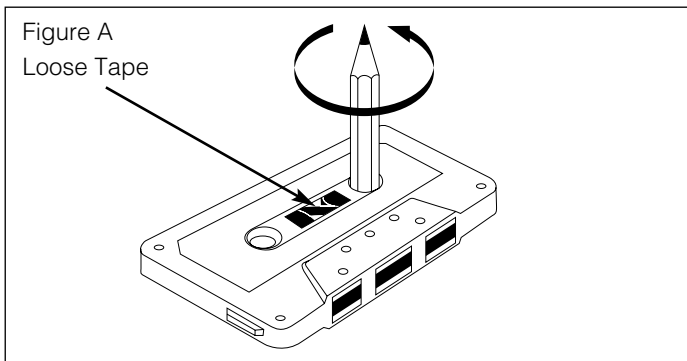
CARE AND MAINTENANCE

Caution:

Cassette tape should be stored in a container or vinyl bag to prevent contamination by moisture and dust. Tapes should not be placed in locations exposed to sunlight or in the vicinity of any magnetic field such as televisions or stereo speakers.

Be sure and eject the tape before turning off the unit. If a cassette is left engaged in the mechanism, a flat spot will develop from the pressure of the capstan and pinch roller, thus causing uneven sound reproduction and damage to your tapes.

Before inserting a cassette into the unit, look through the cassette window to make sure that there is no excess slack, several loose turns. If necessary, insert a pencil or similar object in the reel hub (figure A) and rotate it to take up the slack. If a poor quality tape or a 120 minute tape is used in this unit the tape may become entangled with the capstan and break. We recommend no longer than 90 minute, good quality brand name cassettes be used in the LS6500.

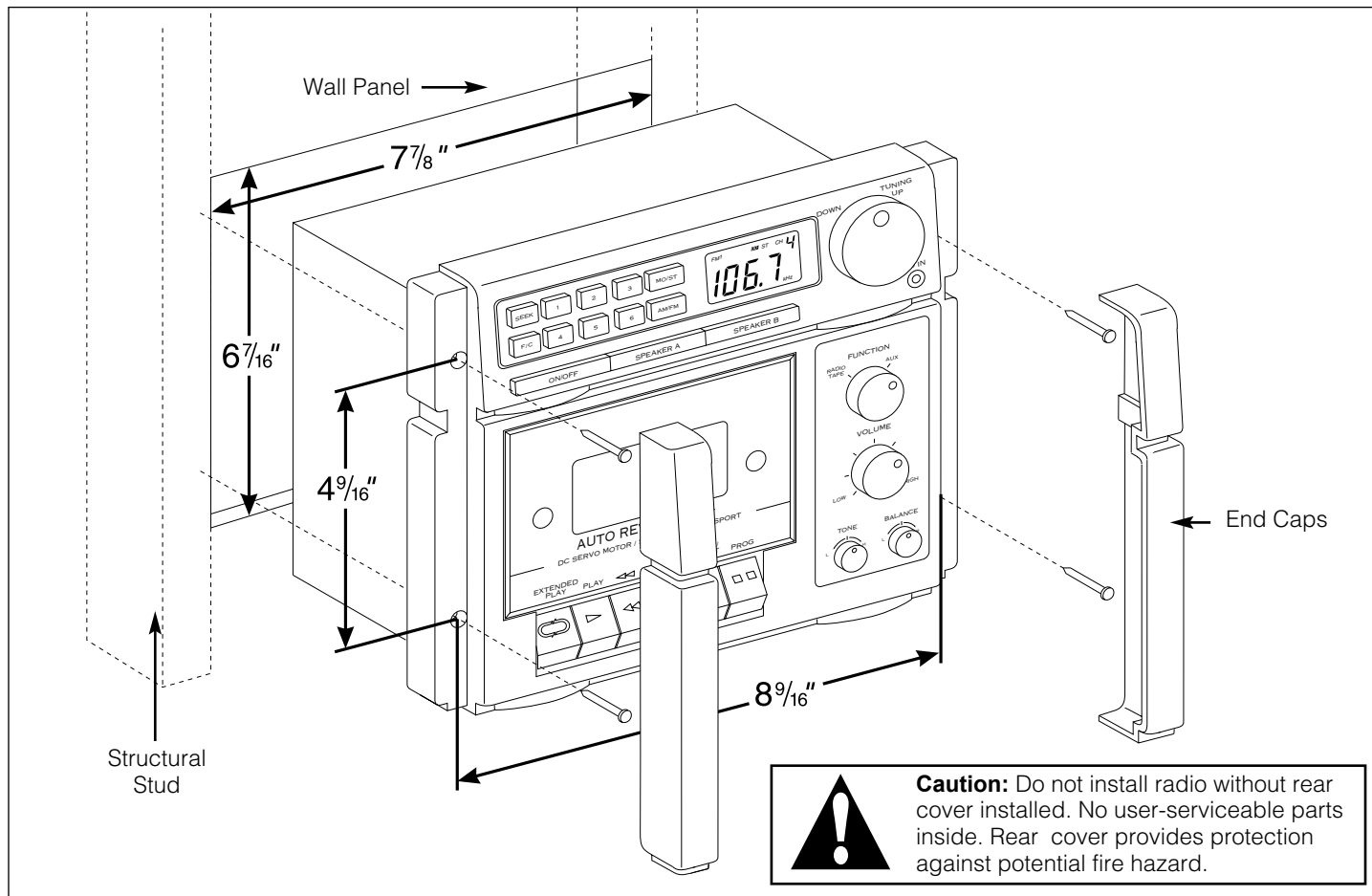


Maintenance

The playback head is a very important part of the tape playback system. If it becomes dirty, the sound quality will deteriorate resulting in loss of fidelity (high frequency reproduction). The head should be cleaned every 20 hours of use. (Approximately)

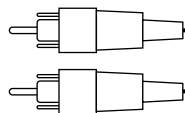
1. Press the eject button and open the cassette door.
2. Clean the playback head with a cotton applicator (Q-tip) and alcohol. Soak the cotton applicator in the alcohol and rub the face of the head until it is clean. Never use sharp objects to perform cleaning.

INSTALLATION

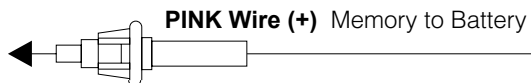


POWER CONNECTIONS

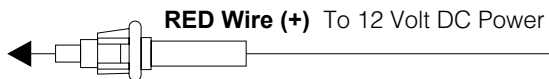
This unit for use only with a 12 volt DC power source with a negative ground



Aux Input Cables Connect to "line outputs" of external cassette deck, CD player, VCR or TV. Units can be AC or DC operation.



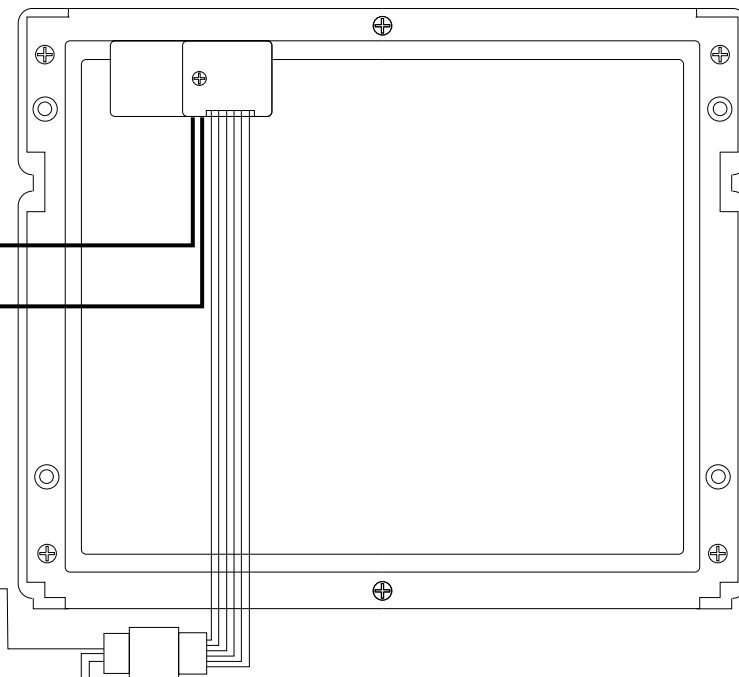
PINK Wire (+) Memory to Battery



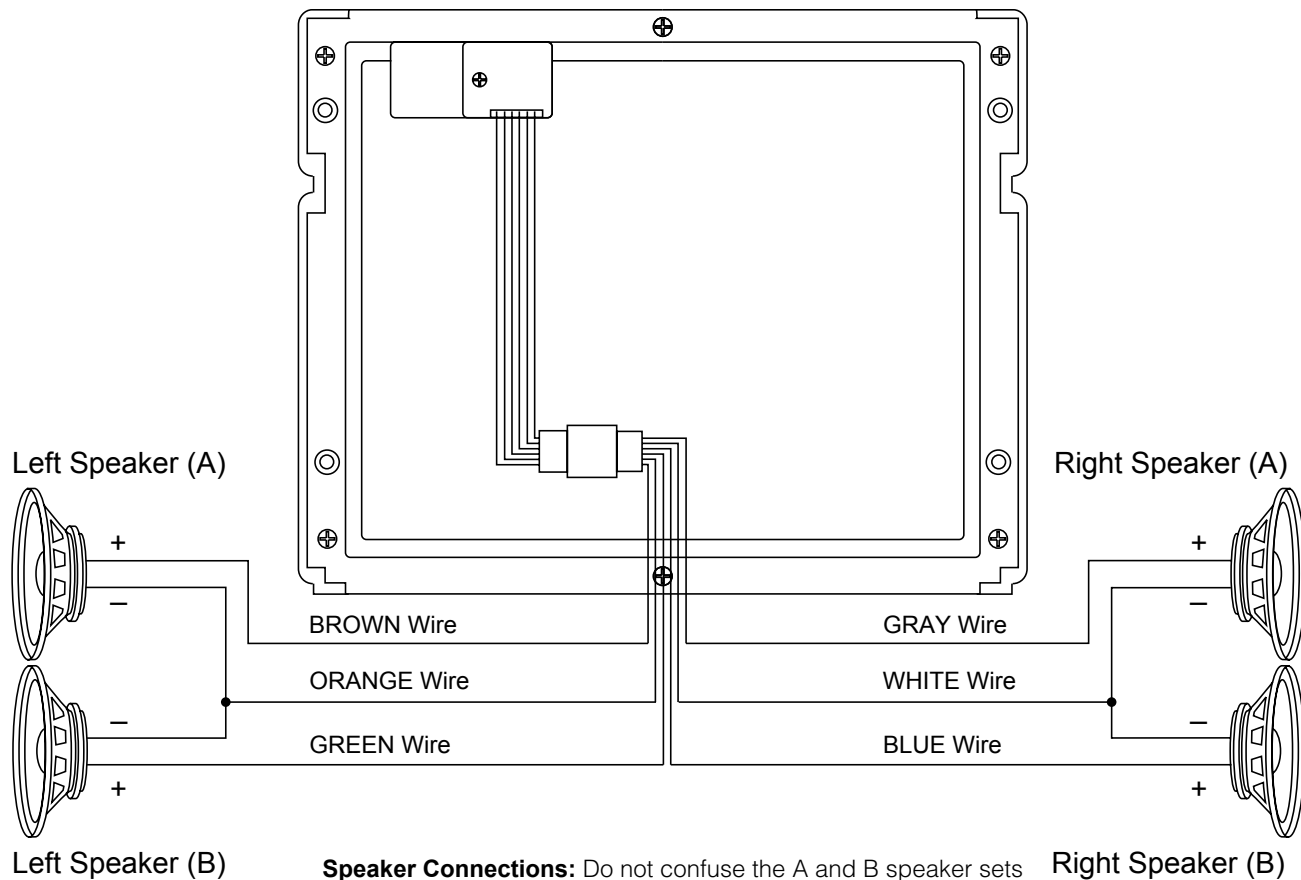
RED Wire (+) To 12 Volt DC Power



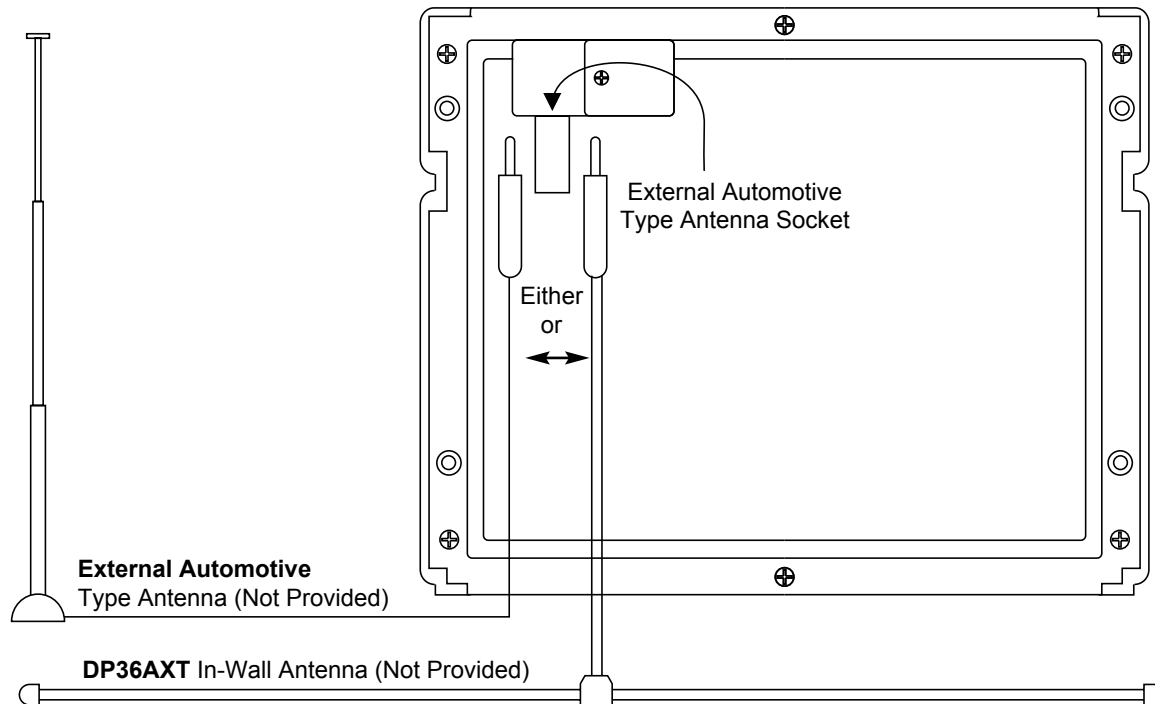
BLACK Wire (-) Ground



SPEAKER CONNECTIONS



ANTENNA CONNECTIONS



The LS6500 have a provision for a standard automotive antenna. If an automotive antenna is used, plug the male plug from the antenna into the female receptacle provided on the unit.

If an automotive antenna is not available or is undesired, we recommend the use of a Magnadyne DP36AXT di-pole antenna substitute. Plug the male plug from the DP36AXT into the female receptacle of the LS6500 unit and allow the cable of the antenna to lay inside the wall.

SAFETY INSTRUCTIONS

Read Instructions: All the safety and operating instructions should be read before the appliance is operated.

Retain Instructions: The safety and operating instructions should be retained for future reference.

Heed Warnings: All warnings on the appliance and in the operating instructions should be adhered to.

Follow Instructions: All operating and use instructions should be followed.

Water and Moisture: The appliance should not be used near water—for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

Wall or Ceiling Mounting: The appliance should be mounted to a wall or ceiling only recommended by the manufacturer.

Heat: The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

Power Supply: The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

Cleaning: The appliance should be cleaned only as recommended by the manufacturer.

Power Lines: An outdoor antenna should be located away from power lines.

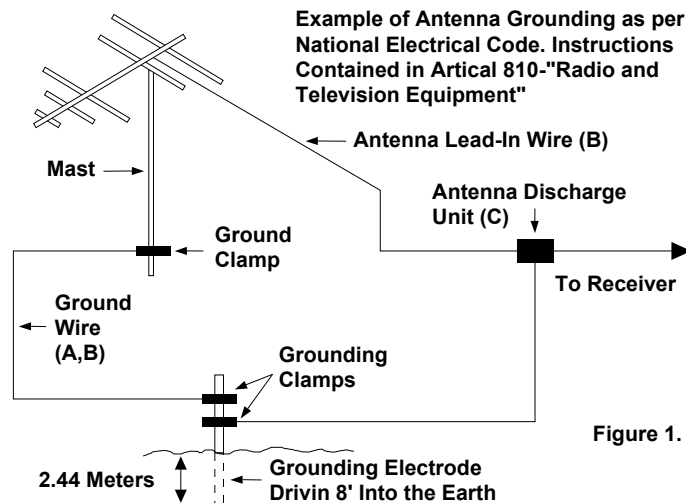
Outdoor Antenna Grounding: If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. Section 810 of the National Electrical Code, ANSI/NFPA no. 70-1983, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See figure 1.

Object and Liquid Entry: Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

Damage Requiring Service: The appliance should be serviced by qualified service personnel when:

- A. The power supply cord or the plug has been damaged; or
- B. Objects have fallen, or liquid has spilled into the appliance; or
- C. The appliance has been exposed to rain; or
- D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
- E. The appliance has been dropped, or the enclosure damaged.

Servicing: The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.



- A)** Use No. 10 AWG (5.3mm²) copper, No 8 AWG (8.4mm²) aluminum, No. 17 AWG (1.0mm²) copper clad steel or bronze wire, or larger, as ground wire.
- B)** Secure antenna lead-in and ground wires to house with stand-off insulators spaced from 4 feet (1.22m) to 6 feet (1.83m) apart.
- C)** Mount antenna discharge unit as close as possible to where lead-in enters house.

WARRANTY

ONE (1) YEAR LIMITED WARRANTY

Magnadyne Corporation or its authorized agents will within 1 year from the date of sale to you, repair, replace or refund the retail sales price of said product or any part thereof, at the option of the Magnadyne Corporation or its authorized agents, if said product or part is found defective in materials or workmanship, when properly connected and operating on the correct power requirements designated for the specific product. This warranty and Magnadyne Corporation or its authorized agents obligations hereunder do not apply where the product was; damaged while in the possession of the consumer, subjected to unreasonable or unintended use, not reasonably maintained, utilized in commercial or industrial operations, or serviced by anyone other than Magnadyne Corporation or its authorized agents, or where the warning seal on the product is broken or the power and/or plugs are detached from the unit. Magnadyne Corporation or any of its authorized agents will not assume any labor costs for the removal and re-installation of any product found to be defective, or the cost of transportation to Magnadyne Corporation or its authorized agents. Such costs are the sole responsibility of the purchaser.

This warranty does not cover the cabinet appearance items or accessories used in connection with this product, or any damaged to recording or recording tape, or any damage to the to the products resulting from improper installation, alteration, accident, misuse, abuse or acts of nature.

MAGNADYNE CORPORATION OR ITS AUTHORIZED AGENTS SHALL NOT BE LIABLE TO ANYONE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES OR CLAIMS EXCEPT THOSE ACCORDED BY LAW. NO EXPRESSED WARRANTY OR IMPLIED WARRANTY IS GIVEN EXCEPT THOSE SET FORTH HEREIN. NO IMPLIED WARRANTY SHALL EXTEND BEYOND 1 YEAR FROM THE DATE OF SALE.

This warranty extends only to the original purchaser of the product and is not transferable.

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

Defective merchandise should be returned to the original point of purchase or secondly, to Magnadyne Corporation, 1111 W. Victoria Street, Compton CA 90220, or 2061 Cohen Street, Montreal, Quebec H4R 2N7. Return Authorization must be obtained before sending, or merchandise may be refused.