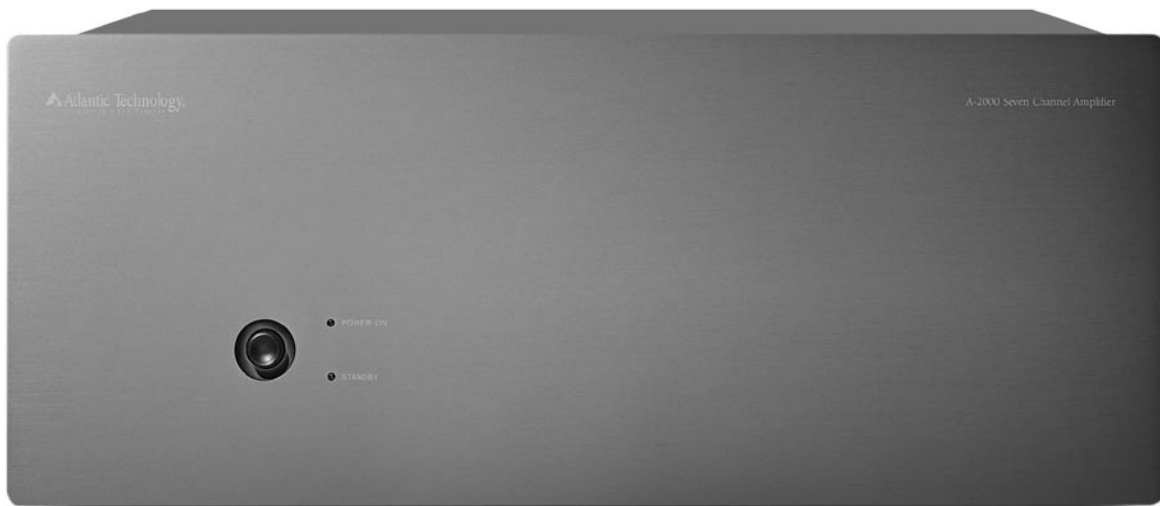


Model A-2000 Seven Channel Amplifier

Instruction Manual



 Atlantic Technology®
INNOVATIVE HOME THEATER

Please Read First



CAUTION: To reduce the risk of electric shock, do not remove the cover. No user serviceable parts inside. Refer to qualified personnel.

WARNING: To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.



The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electrical shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating maintenance (servicing) instructions in the literature accompanying the appliance.

Precautions

Verify The Line Voltage

Your new amplifier has been factory configured for 120 or 230 (+/- 3%) volt AC lines depending on what country you purchased it in. Connecting the amplifier to a line voltage other than that for which it is intended can create a safety and fire hazard, and may damage the amplifier. If you have any questions about the voltage requirements for your specific model, or about the line voltage in your area, contact Atlantic Technology before plugging the unit into a wall outlet.

Verify AC Circuit Capacity

The high power output of your amplifier may require heavy power draw under full load conditions. To insure proper performance, and to avoid potential safety hazards, we recommend that it be connected to a minimum 20 Amp capacity circuit. Connecting multiple amplifiers to the same circuit, or connecting it to a circuit used by other heavy-use power devices, such as air conditioners, may cause circuit breakers to trip.

NOTE: It is always a good idea to avoid using any audio or video equipment on the same AC circuit as equipment with motors, such as air conditioners or refrigerators. This will lessen the possibility of power variation and electrical start-up noise affecting your sound system.

Extension Cords and Power Strips

We do not recommend that extension cords be used with this product unless they are of sufficient gauge to pass the necessary current during full load conditions. Most inexpensive extension cords are not capable of such high-current loads.

Similarly, should you use a power strip, surge protector or any type of AC power line conditioning equipment, make certain that it is also able to handle the high current loads this product will draw.

Handle the AC Power Cord Gently

When disconnecting the power cord from an AC outlet, always pull the plug, never pull the cord. If you do not intend to use the amplifier for any considerable length of time, disconnect the plug from the AC outlet. If the power cord is replaced, make certain that it is of similar gauge. As with all electrical devices, do not run power cords under rugs or carpets or place heavy objects on them. Damaged power cords should be replaced immediately with cords meeting factory specifications.

Wiring

Cables that are run inside of walls should have the appropriate markings to indicate compliance with, and listing by the UL, CSA or other standards required by the UL, CSA, NEC or your local building code. Questions about cables inside of walls should be referred to a qualified customer installer, or a licensed electrician or low-voltage contractor.

Installation Location

To assure proper operation and to avoid the potential for safety hazards, place the unit on a firm and level surface capable of supporting 100 pounds or more. When placing the amplifier on a shelf, be certain that the shelf and any mounting hardware can support the weight of the amplifier and any additional items in the equipment rack, or on the shelf.

When positioning the amplifier in its final location, make certain that it has adequate ventilation on all sides, as well as on the top and bottom. In particular, it is a good idea to provide at least two or three inches of room above the amplifier for air circulation.

DO NOT place CDs, DVDs, videotapes, owner's manuals, or other paper on top of, or beneath, the unit, or in-between multiple amplifiers in a stack. This will block airflow, causing heat build-up, degraded performance, and may create a possible fire hazard.

If the unit is to be enclosed in a cabinet or rack, make certain there is adequate air circulation. Sufficient ventilation should be provided so that hot air may exit, and cool air may enter the cabinet. In some instances, a small cooling fan may be required to insure adequate airflow through the cabinet. If you are in doubt as to the ventilation requirements for your specific installation, please contact us. Also, do not place the amplifier directly on a carpeted surface, as this will inhibit airflow underneath as well as create a potential fire hazard.

Avoid installation in humid locations, in extremely hot or cold locations, or in areas that are exposed to direct sunlight or space heating equipment.

Loudspeaker Ratings

The Atlantic A-2000 has adequate power to drive most loudspeakers without producing audible distortion. Most modern speakers are rated at four to eight ohms nominal impedance, but within some frequency ranges, the impedance may drop to two ohms. The A-2000 is designed with substantial power reserves to protect you from experiencing any problems at these low impedances, unless you demand excessively high volume levels.

Due to the high power output capability of the A-2000, it is important that the amplifier not be used with speakers that aren't capable of handling the A-2000's power output or in a manner that could lead to speaker damage. Before using the A-2000 for the first time, make certain that your speakers are capable of handling its rated power output, at the impedance rating of your speakers and that you read and understand the following important note.

IMPORTANT NOTE Given the right set of circumstances any amplifier is capable of damaging any loudspeaker, no matter what their respective power ratings. Damage can be done either through excessive power output to the speaker or excessive distortion from the amplifier due to clipping. Amplifier clipping is the result of asking the amplifier to deliver substantially more power than it is capable of producing without excessive distortion. This is the single most common cause of speaker damage and can happen no matter how high the power rating of the attached speakers or amplifier may be. Atlantic Technology is not responsible for damage to any speaker system or other component that is caused by using products whose power rating is lower than that of the amplifier or in a manner that results in amplifier clipping and therefore component damage.

Do Not Open The Cabinet

There are no user serviceable components inside this product. Opening the cabinet may present a shock hazard, and any modification to the product will void your warranty. If water or any metal object, such as a paper clip, coin or a staple, accidentally falls inside the unit, disconnect it from the AC power source immediately, and contact Atlantic Technology or your Dealer/Installer for further instructions.

IMPORTANT SAFETY NOTE

Before connecting a new component such as power amplifier to your audio or home theater system it is always good practice to make certain that all components are turned off, and preferably unplugged from their AC power source. Many modern electronics products feature automatic turn-on circuits that may be activated during an installation, causing the potential for damage to electronic components and/or speakers. Such damage is not covered by product warranties and Atlantic Technology specifically disclaims responsibility for any such damage.

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For Future Reference

Record your A-2000's serial number and date of purchase here. The serial number is found on the back panel.

Serial Number _____

Date of Purchase _____

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Model A-2000 Power Amplifier

Thank you for buying this Atlantic Technology product. This unit has been carefully designed to deliver the best possible sonic performance and extended reliability. We trust that your new amplifier will bring many years of listening pleasure to your multi-channel music or home theater system.

In order to receive the maximum enjoyment from your new amplifier, please take a few minutes to read this manual. It will help you make certain that the amplifier is properly configured for operation with the rest of the equipment in your system. This brief investment of time will provide major dividends by making certain that your amplifier is properly installed and optimized for the specifics of your installation. If you have any questions about this product, its installation or operation, please contact your Authorized Atlantic Technology Dealer/Installer or us via e-mail at customerservice@atlanticttechnology.com or via telephone at 781-762-6300.

Features

Your new Atlantic Technology Multi-Channel Amplifier is a state of the art, high performance audio device. It is built utilizing totally complementary circuitry from input to output. The high current power supplies are driven by custom-designed toroid transformers which reduce hum and noise significantly.

Each of the seven amplifier modules incorporates 2 very high quality discrete output devices capable of passing in excess of 20 amps of current. The amplifier's circuitry is both very sophisticated in concept yet simple in layout and construction. A minimum number of components are used in the signal path to ensure excellent sound quality and reliability. These components have been chosen for their ability to amplify the signal while adding or subtracting nothing to/from the sound.

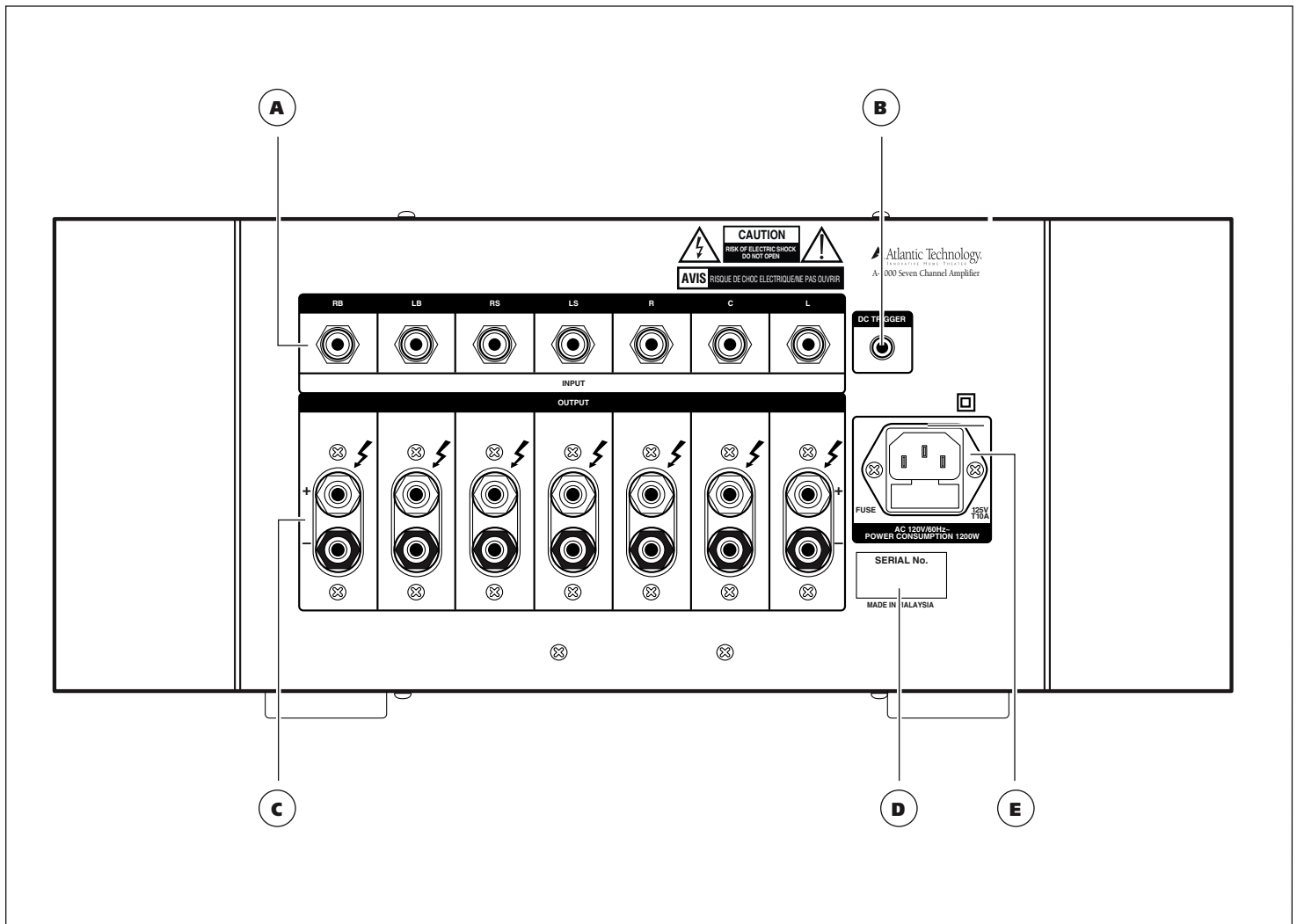
The advanced protection circuits (over-current, over-temperature, DC offset) are external to the signal path and therefore don't degrade the amplified signal in any way. No current or voltage limiting are employed to further ensure signal purity and guarantee substantial dynamic range. Heat management is provided by custom-designed cast aluminum heat sinks that also form the sides of the amplifier itself. The heat sinks have been "oversped" to ensure cool running and long life for the internal components, as heat is the prime enemy of electronic parts.

Unpacking

The carton and packing materials used in shipping your new amplifier were specially designed to cushion it from the shocks and vibration of shipping. We strongly suggest that you save the carton and packing materials to use if you move, or if the unit ever needs to be shipped for any reason. To minimize the size of the carton in storage, you may wish to flatten it by carefully opening the top and bottom flaps and folding the carton flat. Other cardboard inserts may be stored in the same manner. Packing materials that cannot be collapsed should be saved along with the carton in a plastic bag.

Your new amplifier has been engineered using heavy duty materials for high reliability and weighs a considerable amount (67 pounds). This substantial weight requires that you pay special attention to unpacking and installation of the unit. You may wish to have someone help you remove the unit from its carton and place it in your chosen location.

A-2000 Rear Panel



Rear Panel

A Audio Inputs (see page 5)

Use the INPUT jacks to connect to the outputs of a surround processor, preamplifier, AV receiver with preout connections, DVD player with discrete five channel outputs, or HDTV product with built-in surround decoder. Whatever kind of unit you connect be sure that it has a built-in volume control as the A-2000 does not.

B Remote Trigger Input (see page 7)

Use the REMOTE TRIGGER jack to connect to a compatible processor or other product with a 3-32 VDC trigger output.

C Speaker Outputs (see page 5)

Use the OUTPUT binding posts to connect the amplifier to your speakers.

D Product Serial Number

Write this number in the space provided on page 3 for future reference.

E AC Input (see page 7)

Use the included power cord (or a comparable cord of equal or greater wire gauge) to connect your amplifier to a compatible AC power source.

Connecting The A-2000

When making connections between any source components and the amplifier, or when making connections to any speaker, be certain that both the input device(s) and the amplifier are turned off to assure that there will be no unwanted signal transients that can damage the equipment or speakers. As a rule, it is always best to unplug all equipment before making any connections, as many electronic products have a standby mode that may be activated although the product may appear to be turned off.

Input Connections

Connecting the amplifier to your source equipment is simple. Using high quality audio interconnect (“RCA”) cables, match the output channel designations on the rear of your processor (or other source equipment) to the input jacks on the rear panel of your amplifier that have the same channel name (see page 4). When making these connections, make certain to gently, but firmly insert the plug into the jack. Loose connections can cause intermittent sound and may damage your speakers.

The outer ring of the barrel assembly of some RCA plugs may be very tight, and it is important to assure a proper connection between the interconnection cable and the input jack. Gently twisting the connector as you insert it can often ensure good connections and full insertion.

Speaker Connections

To assure that the high quality signals produced by your amplifier are carried to your speakers without loss of clarity or resolution, we recommend that you use high quality speaker wire. Many brands of wire are available; the choice may be influenced by the distance between your speakers and the amplifier, the type of speakers you use, personal preferences, or other factors.

Regardless of the brand or type of speaker wire selected, we recommend that you use a wire constructed of fine, multi-strand copper with a gauge of 14 or heavier. Remember that in specifying wire, the lower the gauge number, the heavier the cable will be. Wire with a gauge of 16 may be used for short runs of less than ten feet. We do not recommend that you use any wires with an AWG equivalent of 18 gauge or lighter, due to the power loss and degradation in performance that may occur.

To connect the amplifier to your speakers a pair of multi-way binding posts is provided for each channel output. These posts will accept bare or tinned wire, pin connectors, spade lugs or “banana” type plugs, when they are permitted by local safety agencies. If bare wire is used for the connections, strip approximately 1/2 to 3/4 inch (20mm) of insulation from the end of each wire and carefully twist the strands of each conductor together. Be careful not to cut the individual strands or twist them off.

Correct polarity connections (+ to +, - to -) are important to maintain proper speaker phasing. When speaker phasing is correct, all speakers move in and out together, preserving the imaging and bass response of the program material. Out-of-phase connections mean that some speaker cones will be moving in, while others move out. This will cause indistinct or confused imaging, and muddled and cloudy sounds and lack of bass response. To avoid incorrect phasing or polarity, be certain to use cable that has distinct markings, colors, stripes, wording, or grooves on each side of the

speaker cable. When making connections to the amp and speakers, adhere to a consistent pattern of using one side of the wire to the red terminals and the other side to the black terminals. When using cable with markings on one side only, traditional convention is to consider the marked side of the wire as the red, or positive (+) connection, and the non-marked side as the black or negative (-) connection.

Loosen the knobs of the amplifier’s speaker output terminals, far enough so that the pass through hole is revealed. Follow the proper connection instructions for your system (and as outlined above) with regard to which terminals are used. Once the connections are made, twist the cap back so that the connection is secured, but do not over tighten or use tools, as this may break the delicate wire strands and decrease system performance.

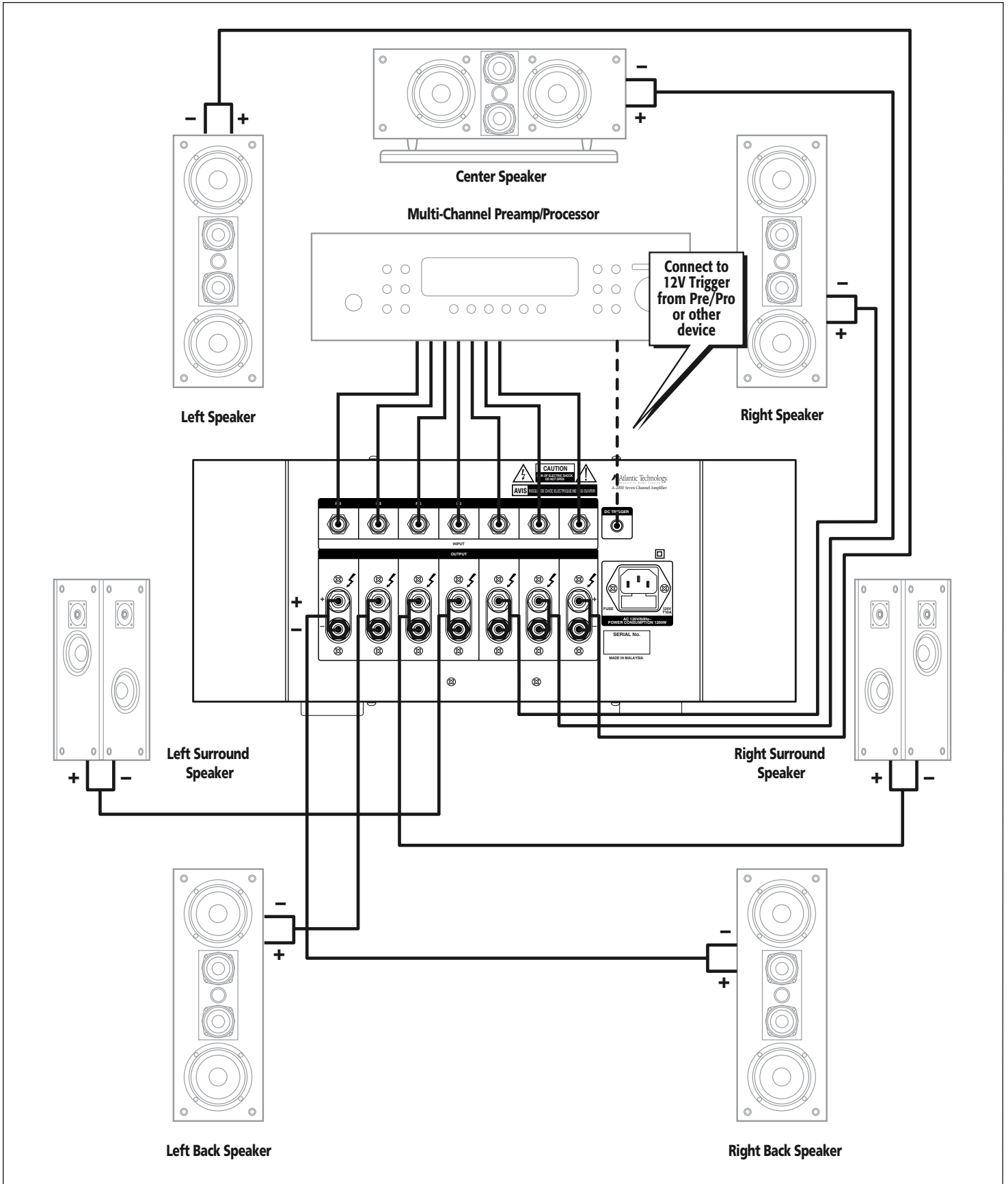
If you are using spade lugs, connect them to the speaker wire using the manufacturer’s instructions then loosen the caps on the amplifier’s speaker terminals. Place the lugs between the plastic cap and the back of the terminal. Be sure to observe proper polarity, using the appropriate speaker hook-up icons for your system’s configuration. Using your fingers, tighten to obtain a positive contact.

When using banana plugs, connections may be made by simply inserting the appropriate jack affixed to your speaker wire into the hole provided on the rear of the colored screw caps on the binding posts. Before using banana type jacks make certain that the plastic screw caps are firmly tightened down by turning them in a clockwise direction until they are snug against the chassis. This will insure that the maximum surface area of the plug is in contact with the jack when it is inserted. Once again, be certain to observe proper polarity.

Run the cables to the speaker locations. It is recommended that the length of wire connecting any pair of speakers be similar. For example, make certain that the wire length connecting the left and right front, or the left and right rear (surround) speakers are similar in length, even though one speaker may be physically closer to the amplifier than the other. Do not coil and/or wrap the excess wire around itself, as such a coil makes an inductor that creates frequency response variations in your system. Finally, connect the wires to the speakers, again being certain to observe proper polarity. Remember to connect your negative and positive wires to the matching terminal on the speaker.

NOTE: While most speaker manufacturers adhere to an industry convention of using red terminals for positive connections and black terminals for negative, some manufacturers may vary from this configuration. To assure proper phase connections, and optimal performance, consult the identification plate on your speaker terminals, or the speaker’s manual to verify polarity. If you do not know the polarity of your speaker, consult the speaker’s manufacturer for further information.

A-2000 Rear Panel Connections



Power Control Connections

The Model A-2000 features a built-in remote turn-on system that will automatically switch the amplifier on when a connected device in the system is switched on.

Remote Turn-On Using Products Equipped With a Low Voltage Trigger Jack

Press the front panel power switch on the amplifier so that it is in the ON position. Then, using an accessory cable with a 3.5mm mono mini-plug on each end, connect the trigger-output jack on the rear of the source device to the trigger input jack on the back panel of the amplifier. When these connections are made, the amplifier will automatically turn on whenever the triggering device is turned on.

Remote Turn on Using External AC to DC Power Converter

If your processor or receiver does not have a dedicated trigger jack, it is still possible to activate the unit for automatic turn on when a Switched Outlet is available on the rear of the source device. To control the amplifier in this fashion you will need a small AC to DC power converter, capable of delivering a 6 to 12 volt DC signal. The DC voltage should terminate in a standard 3.5mm type mini plug. This type of converter may be obtained as a Power Adapter from many electronics retailers, or may be obtained at Radio Shack stores as catalog number 273-1758.

When installing, plug the AC adapter into a switched outlet that will be activated when you wish to have the amplifier turn on. This may be the switched outlet at the rear of an AC receiver or other audio equipment. Connect the 3.5mm mini-plug from the adapter to the trigger-input jack on the back panel of the amplifier. Press the Main Power Switch on the front panel of the amplifier in so that it is in the ON position. The amplifier will now turn on and off automatically, based on the status of the controlling device.

Power Connection

Once all audio and system connections have been made, connect the supplied power cord (or an equivalent cord of equal or heavier gauge) to the amplifier first, and then connect it to an AC power source. Please make certain that the amplifier is turned off and that the device connected to the remote trigger input is off when connecting the power cord and plugging it into an AC outlet.

CAUTION: *Do not plug the amplifier directly into the "Switched Accessory" outlet of another device! These outlets are intended for use with low current draw products, such as tuners, CD players or cassette decks. These outlets cannot safely supply the high current required by a power amplifier like the A-2000. Using switched outlets like these for a power amplifier poses a significant safety hazard.*

IMPORTANT NOTE: *It is also not recommended that you connect other power amplifiers or products with a high current draw, to the same AC power circuit as the amplifier, unless they are used with the remote power turn on and some sort of power on sequencing system. The simultaneous turn-on of multiple amplifiers on the same circuit may cause circuit breakers to trip, due to the high current draw.*

Amplifier Operation

After all connections have been made you are ready for listening. First, with the processor's volume control all the way down, turn on the source components and processor in your system. It is always a good idea to turn on your amplifier LAST. This avoids the possibility of any turn on pops or transients from other equipment being amplified and sent to your speakers where they may cause damage. Be sure to always start with a low volume level on your controller or preamp to avoid damage to your speakers.

Manual On

Simply press in the front panel power switch until the light is illuminated. There will be a short pause from the time the power is turned on until power is applied to the speakers. This is intentional, and protects your speakers from damage while the amplifier stabilizes. You may also hear a relay click during start up. This is also normal. To turn the unit off, switch the power switch to the off position.

Output Settings

All volume and level adjustments are made at your preamp, controller or surround processor. To assure proper sound field imaging, you should re-set the output levels of the channels on your processor when using the amplifier for the first time. The circuitry in your new amplifier may be different from your previous one, and checking the output levels will make certain that the processor, amplifier and speakers are properly matched.

Care and Maintenance

Cleaning

If the unit becomes dirty, wipe it with a clean, soft, dry cloth. If necessary, first wipe the surface with a soft cloth slightly dampened with mild soapy water, then with a fresh cloth slightly dampened with clean water. Wipe dry immediately with a dry cloth. NEVER use benzene, thinner, alcohol or any other volatile cleaning agent. Do not use abrasive cleaners, as they may damage the finish of the metal parts. Avoid spraying insecticide, waxes, polishing agents, or any aerosol product near the unit.

When You Are Away

If you will not be using your home theater system for an extended period of time, it is always a good idea to disconnect all associated units from the AC wall current.

Troubleshooting

Your A-2000 is designed to provide years of trouble free operation. However, as with any sophisticated electronic device, there may be occasional problems upon initial installation, or during the life of the unit. The items on this list are a brief guide to the minor problems that you may be able to correct yourself. If these solutions do not rectify a problem, or if the problem persists, contact your Atlantic dealer/installer or us for assistance.

Protection Circuitry

Your amplifier uses advanced protection circuitry that does not require fuses. In the event that the amplifier senses a shorted speaker wire, DC voltage on an input connection or thermal overload creates a condition that could potentially cause damage to the unit or to your speakers, it will automatically shut down. If this should happen, first check all speaker wire connections, both at the speakers themselves and at the speaker terminals on the back of the A-2000 to make certain that none of the strands from any channel touch another channel, and that none of the strands from a "positive" terminal touch those from a "negative" terminal. Even a few stray wire strands can cause the unit to go into protection mode.

After checking all speaker connections, turn the unit back on. If it continues to turn off, disconnect the speakers one by one and try the amplifier again, after disconnecting each one, to see if one speaker (or wire) is causing the problem. If all potential sources of trouble check out OK, contact your dealer or us for further assistance and information.

Service Information

A-2000 contains no user serviceable parts. If you suspect a problem that may require service assistance, contact your Atlantic Technology dealer/installer or us or by phone at 781-762-6300. It is important that any repairs be carried out only by an authorized service agent. This will assure proper service and

preserve the protection of your Limited Warranty/Free Extended Service Agreement. Keep your sales slip or receipt in a safe place with this manual as well as your Extended Service Agreement certificate so that it will be available to verify coverage, should you experience a covered problem.

A Few Words About Hum and Noise

Audible hum, or a discernable low frequency noise, is one of the most common problems in audio/video systems. This hum, which may be present even when the volume is at a low level or when the power is off, is usually caused by a situation known as a ground loop. A ground loop occurs when there is a difference in ground voltage potential between two or more pieces of equipment in the system. For example, there could be an electrical ground for the main electrical service that is connected to a cold water pipe in the basement and a ground rod driven into the earth outside the house for the cable TV system. If two or more components are connected electrically (through RCA cables, antenna leads, etc.) and they are also connected to both ground systems (the house AC plugs and the cable TV system in our example) multiple potential ground current paths exist. This can and often does cause low-level noise, hum, and an increased possibility for damage due to lightning strikes.

The growing sophistication of home theater systems, and the increased number of components used to create these systems has dramatically increased the potential for the possibility of ground loops. While it is natural to suspect that the components in your system are the cause of the hum, in many cases the cause may be due to these other conditions. In particular, cable TV connections from outside the house (as noted above) have become a major source of hum. In most cases, one of the following suggestions should help you to solve a hum problem in your system. Please try these steps in the sequence shown, proceeding from one step to the next if the prior suggestion does not eliminate the problem.

Troubleshooting Guide

Problem

Solutions

Amplifier will not turn on

Master Power Switch turned off (No power light LED)
Turn on Master Power Switch

Amplifier will not turn on

Remote trigger cable not properly connected
Verify connection of trigger cable at both ends

Amplifier turns on, but no audio from one or more channels

Input plugs not connected to proper jack or are loose
Check input connections

No audio from one or more channels

Speakers not connected properly
Check speaker connections at amp and speaker

Audio levels differ

Improper settings or output levels from the processor or controller
Check the settings on your preamp, processor or controller

Audio plays, then cuts off

Amplifier shorted
Check speaker connections for short circuit at amp and speaker

Potential Ground Loops in a Complex A/V System

Suggestion 1 To determine if a cable TV connection is responsible for the hum, first turn all components off. Disconnect the cable TV feed to your system at the first place where it connects to your components. Alternatively, disconnect the cable TV wire (not the AC wire to the cable box, but the cable antenna wire) where it is connected at the wall outlet. Turn your system back on, and listen if the hum has disappeared. If removing the cable TV feed has eliminated the hum, you will need to insert a Ground Loop Isolator before reconnecting the cable TV feed, or contact your cable TV operator to see if they can better isolate your cable feed. Ground Loop Isolators should be available from your local Audio Video dealer.

Suggestion 2 Turn off all components in your system, and then disconnect the input cables at the amplifier. Turn the amplifier back on, and see if the hum is still present. If the hum disappears, the fault may be in the input cables used. Try replacing them with cables that have better shielding, and make certain that the input cables are not running on top of or directly adjacent to and parallel with any AC power cords. Change the cables one at a time to determine if one, or all cables is responsible. If the hum disappears when the input cables are disconnected, but returns after the cables are changed and the system re-connected, the problem may be caused by your processor, receiver or preamplifier.

Suggestion 3 Ground loop problems may also be caused by poor grounding of the electrical system in your home, particularly when there are multiple components with three prong grounded power cords. Try unplugging these components one at a time, and see if one or all of them is causing the problem. The ultimate solution to this type of problem is to re-wire your house with an

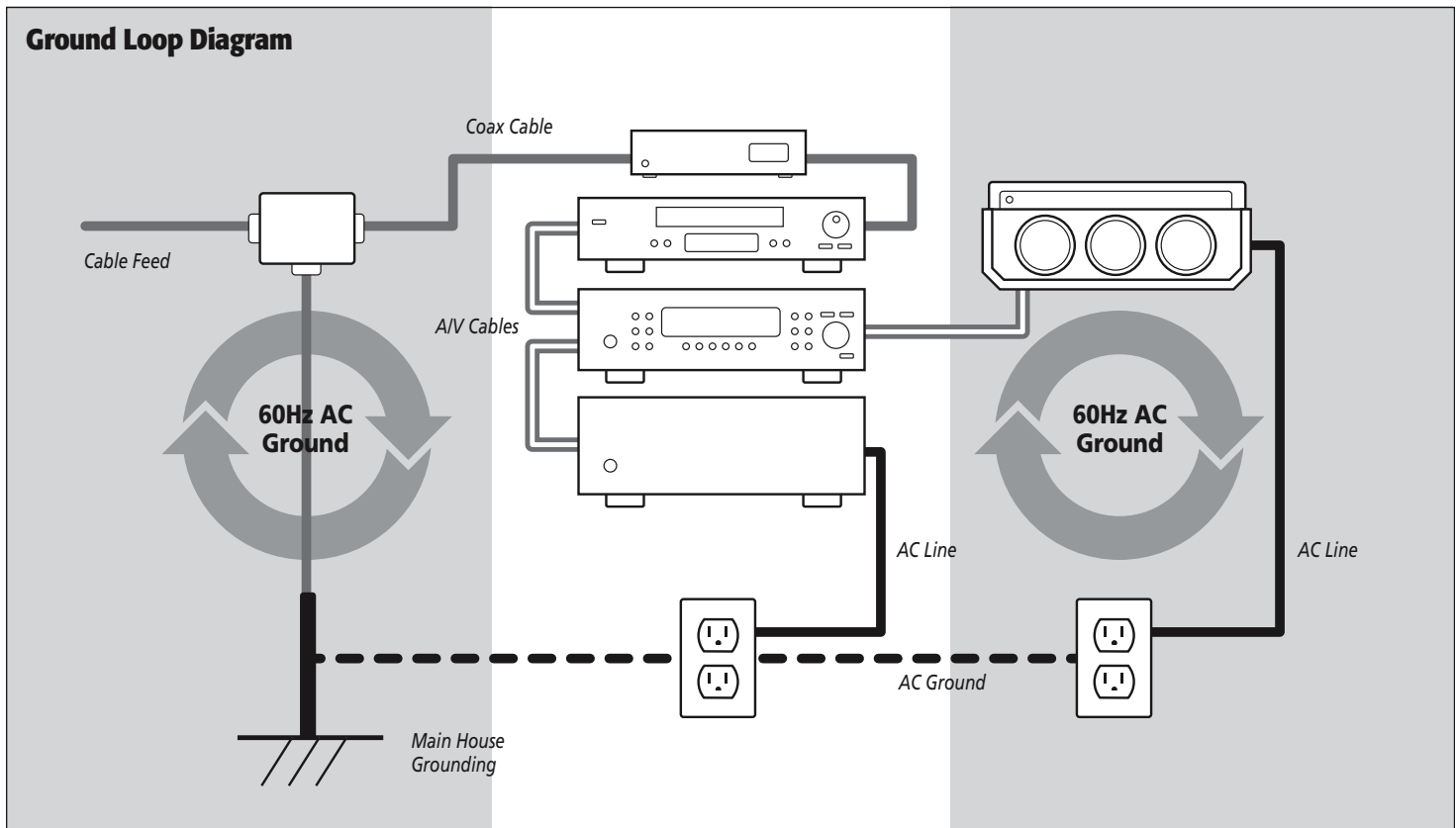
isolated, star type grounding configuration. We recognize, however, that this may be impractical and expensive. In some cases, the use of an approved AC Power Isolation Transformer of sufficient capacity may solve this problem.

Warning: *If you suspect that the grounding system in your home's electrical wiring is causing the hum problem, it is important that you do not make any changes to the wiring yourself. Only a licensed electrician should make any changes to household wiring, and they must be made in full compliance with all local building, safety and electrical codes.*

Suggestion 4 Hum may also be caused by faulty earth grounds in your home's electrical system. In the past, cold water pipes were often used for the earth ground, so it is important to make sure that your ground connection is still valid and has not become loose or corroded. The cold water pipe method may no longer be valid in some locations due to requirements that the water meter be isolated from the water mains with a length of PVC pipe, thus interrupting the ground circuit. The safest, and most reliable, approach may be to provide your own ground. This can be accomplished by having a licensed electrician drive at least five feet of copper-jacketed steel grounding rod into the earth, and using that for your grounding connection.

Suggestion 5 If you have hum in your video display device (bars that roll up through image at 12-14 second intervals), this may be related to hum you also experience in your audio system. The previous suggestion tips may help with this also. If not, try isolating the ground in the projectors video signal cable with a base-band video isolation transformer, such as the Jensen VB-1BB.

If the hum persists after all of the above suggestions have been tried, contact our customer service department for assistance.



Specifications

Power Output	7 x 120 watts @ 8 ohms, 20 - 20kHz, 0.08% THD
Frequency Response	20Hz - 20kHz +/- 0.3 dB at rated output
Total Harmonic Distortion (THD)	Less than 0.08% at all frequencies, less than 0.008% at 1 kHz
Power Bandwidth	10Hz - 100 kHz +/-3 dB
Crosstalk	Greater than -90 dB from 20 Hz to 20Khz
Voltage Gain	29dB
Input Impedance	27k ohms
Input Sensitivity	1.2 Volts for Full Rated Output
Remote Trigger Voltage	3 - 18 Volts AC/DC
Dimensions (HxWxD)	7.75" x 17.2" x 18"
Weight	67.25 lbs net, 76 lbs gross
Power Requirements	115VAC, +/- 3%, 50Hz - 60 Hz. 1800 watts, maximum

