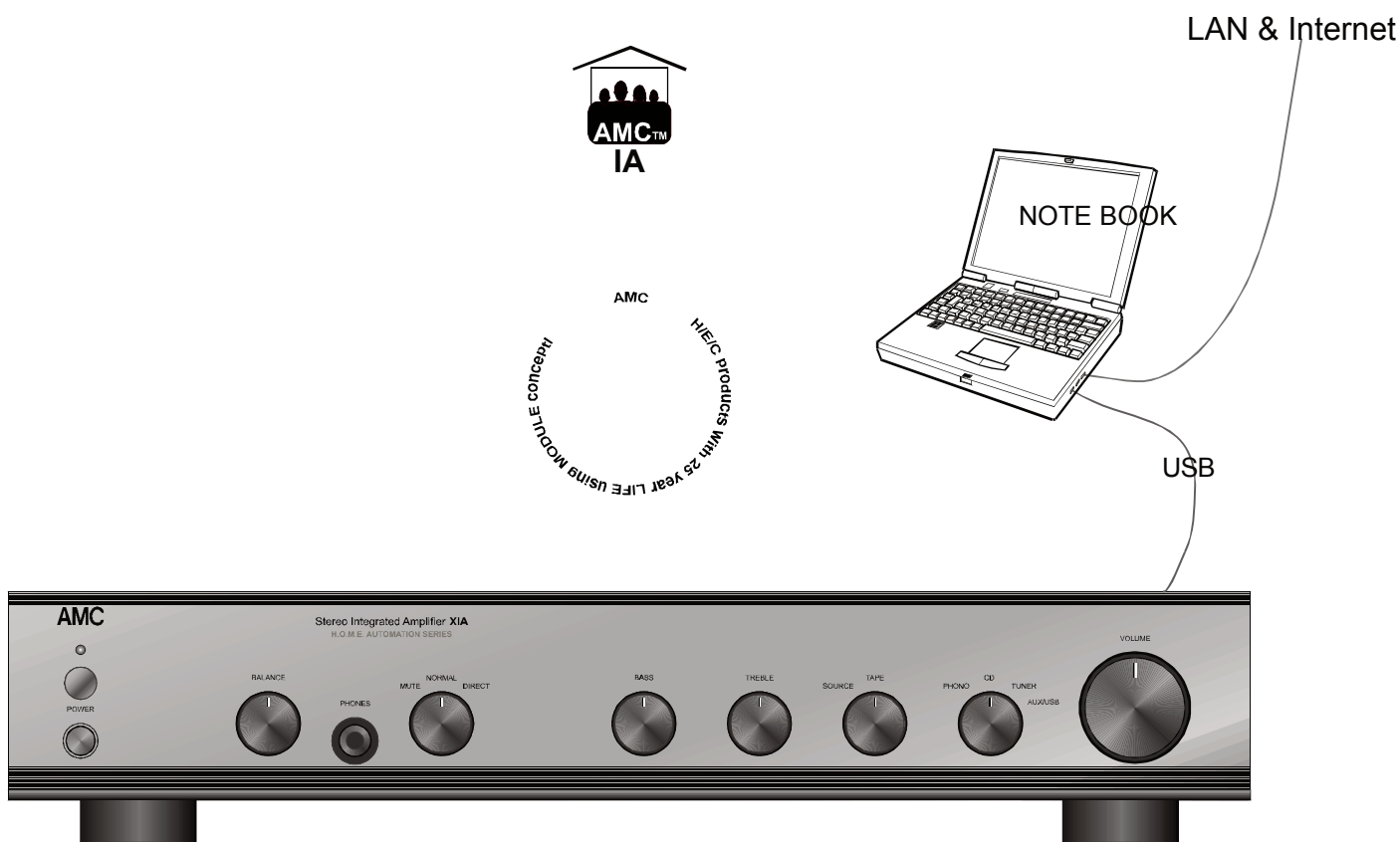


# AMC XIA

## STEREO INTEGRATED AMPLIFIER

*With option of USB connector for networking to other equipment, computer, LAN and so the internet.*



*Create CD quality sound from computer & Internet through the USB linking system designed in AMC IA System*

## INSTRUCTIONS FOR INSTALLATION AND OPERATION



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL



AFIN DE VITER UN CHOC ELECTRIQUE ET LES CONSEQUENCES GRAVES QUI POURRAIENT EN RESULTE, TENTEZ PAS D'OUVRIR L'APPAREIL ET DE TOUCHER AUX COMPOSANTS INTERNES SANS LA PRESENCE D'UNE PERSONNE QUALIFIEE.



PARA REDUCIR EL RIESGO DE SACUDIDAS ELECTRICAS, NO DEBERA QUITARSE LA TAPA (NI PARTE POSTERIOR). CONSULTESE AL PERSONAL CAPACITADO PARA LAS REPARACIONES INTERNAS.

**WARNING:** TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

**ADVERTENCIA:** PARA EVITAR EL RIESGO DE INCENDIO O SACUDIDA ELECTRICA, NO DEBERA EXPONERSE ESTE APARATO A LA LLUVIA O HUMEDAD.

**CAUTION:** TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARISED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE..

**ATTENTION:** POUR PREVENIR LES CHOCES ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR. UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SILES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

**PRECAUCION:** PARA EVITAR SACUDIDAS ELECTRICAS, NO DEBERA UTILIZARSE ESTA CLAVIJA POLARIZADA CON UN CORDON DE PROLONGACION, RECEPTACULO U OTRO TIPO DE SALIDA A MENOS QUE SE HAYAN INSERTASO COMPLETAMENTE LAS LENGÜETAS PARA EVITAR SU EXPOSICION.

**NOTE:** Some AMC products are equipped with dual or multi-voltage transformers (which is indicated on the back panel). If you wish to change the voltage, please bring your unit to an authorised AMC service technician for internal conversion.

**ATTENTION:** Quelques pièces AMC sont munies de transformateurs à double ou à multi-voltage (indiqué au panneau arrière). Si vous voulez changer le voltage, veuillez apporter votre appareil au fournisseur de AMC pour le transformer.

**ZUR BEACHTUNG:** Einige AMC Geräte sind mit Umschaltern für unterschiedliche Netzspannungen ausgerüstet (Ein Vermerk auf der Rückseite weist darauf hin).

Die Anpassung, wenn notwendig, muß von einem qualifizieren Techniker in einer AMC Servicestation vorgenommen werden.

**NOTA:** Ciertos componentes de AMC están dotados de transformadores de doble tensión o de varias tensiones (lo que se indica en el panel posterior). Si se desea cambiar la tensión, sírvanse llevar el aparato a un técnico autorizado por AMC para su conversión interna.

**NOTE TO CATV systems installer:** This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

**NOTA PARA EL INSTALADOR DE ANTENAS DE TELEVISION COLECTIVAS:** La presente advertencia se provee para llamar la atención del instalador al Artículo 820-22 de NEC (Código Eléctrico Nacional) donde se facilitan las directrices para la pertinente puesta a tierra y que especifica en particular que el conductor a tierra del cable debe conectarse al sistema de conexión a tierra del edificio, lo más proximo posible al punto de entrada del cable.



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



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

# INTRODUCTION

The AMC remote controllable integrated amplifiers XIA offer in an innovative and elegant design, an affordable combination of high quality sound reproduction and comprehensive facilities.

The integrated amplifier accepts five inputs (Phono, CD, Tuner, Aux/USB and Tape), is compatible with both moving magnet and moving coil cartridges, has full tape monitoring capabilities and also both a direct switch, allowing the tone control circuitry to be by-passed for improved sound quality.

To get the best from your amplifier please study this manual carefully. Should you experience any problems, please discuss them with your dealer who has a full knowledge of AMC products and their use in a variety of systems.

## INSTALLATION

Your AMC amplifier is supplied set to work on your local mains supply voltage. Check that your local mains supply voltage agrees with the voltage setting indicated on the back panel of the amplifier. If not, please contact your dealer or national distributor for details on how to proceed further.

Note: All connections must be completed and AC Selector should be set to correct voltage before plugging in power cord and turning the power on.

## FUSES

If the mains plug is fused, fit a 3amp fuse. Your AMC amplifier contains fuses which are designed to protect the amplifier and prevent the occurrence of a dangerous fault condition. These should only be inspected and replaced by a competent engineer using the correct replacement types.

# FEATURE

\*Unique phono stage design that employs two audiophile grade op-amps per channel that provide very low THD, TIM and noise, together with switchable MM/MC sensitivities.

\*AMC XIA is designed with option of USB connector for networking to other equipments, computer, LAN and so the Internet.

\*AMC XIA creates CD quality sound from computer and Internet through the USB linking system designed in AMC IA system.

\*The high overload tone control stage can be completely by-passed with the DIRECT switch to give natural sound quality.

\*Special designed passive Tone control circuit to give natural sound quality.

\*Uses audiophile grade components through out, providing exceptional accuracy to phono and tone control responses.

\*High overload margin on tone control circuit by virtue of its topologies.

\*Power amplifiers with 30 Amp high peak output current devices to offer capabilities to drive almost all types of speaker systems.

\*Power amplifiers with special designed perfect virtual image topology to make it possible to be without output relays. The topology connects amplifier outputs to speaker systems without relay contacts to offer best possible sound quality.

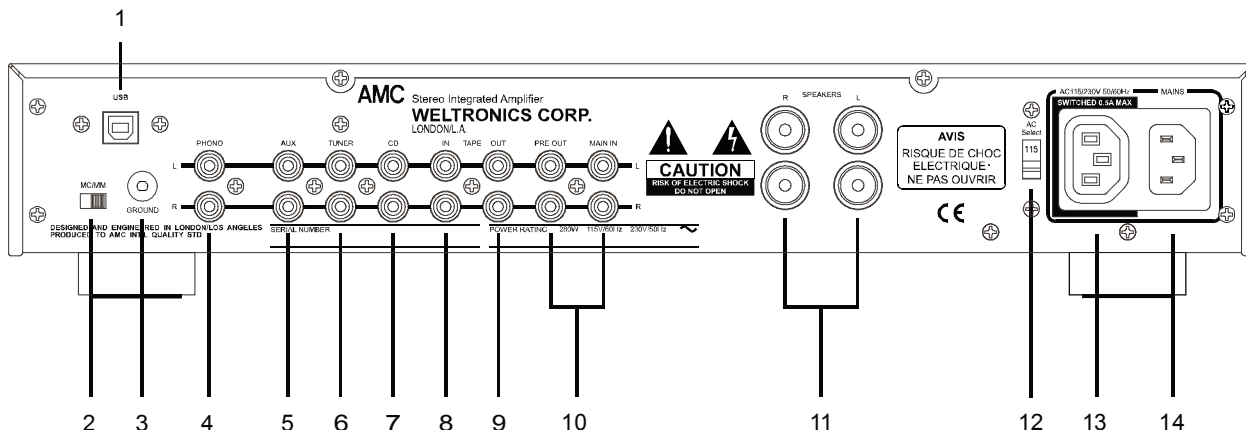
\*Using high output current devices with optimized power supply designs, the power amplifiers can be only protected with fuses on power supplier side in order to delivery extremely high output current in demand to give superb sound quality.

\*With universal power transformer passed all international safety standards, end users can use the unit in all countries by re-setting the AC select to correct voltage.

\*Heavy duty gold plated speaker binding posts and phono connectors for ultra reliable connections.

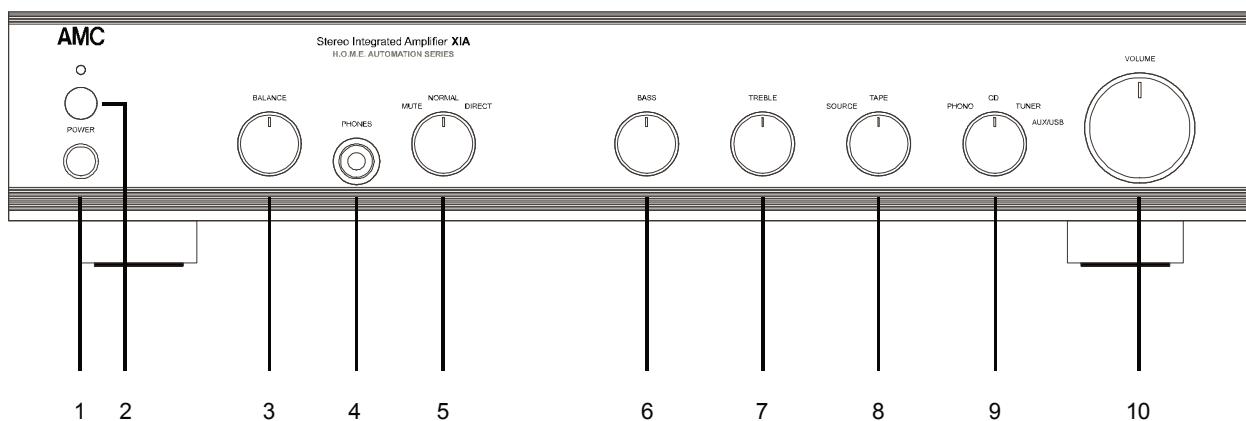
# REAR PANEL CONNECTIONS/FRONT PANEL CONTROLS

## REAR PANEL



- |                                      |                           |
|--------------------------------------|---------------------------|
| 1.USB                                | 8.TAPE INPUT              |
| 2.PHONO MM/MC INPUT SELECTION SWITCH | 9.TAPE OUTPUT             |
| 3.PHONO GROUND TERMINAL              | 10. PRE OUT/MAIN IN       |
| 4.PHONO INPUT                        | 11. LOUDSPEAKER TERMINALS |
| 5.AUX INPUT                          | 12.AC SELECT SWITCH       |
| 6.TUNER INPUT                        | 13.AC SWITCHED OUTLET     |
| 7.CD INPUT                           | 14.AC RECEPTACLE          |

## FRONT PANEL



- |                             |                          |
|-----------------------------|--------------------------|
| 1.POWER SWITCH              | 6.BASS CONTROL           |
| 2.INFRARED RECEIVER         | 7.TREBLE CONTROL.        |
| 3.BALANCE CONTROL           | 8.TAPE MONITOR SWITCH    |
| 4.PHONES                    | 9.INPUT SELECTION SWITCH |
| 5.MUTE/NORMAL/DIRECT SWITCH | 10.VOLUME CONTROL        |

## REAR PANEL CONNECTIONS

### USB CONNECTOR

The USB connector is for connecting to computer, other equipments with USB, LAN and so the Internet.

The analog output of the USB connector is in parallel with auxiliary input.

### PHONO INPUT

This input is suitable for both moving magnet and moving coil cartridges. For either type of cartridge the plugs on your turntable lead should be connected to the phono input sockets on the rear panel of your amplifier.

To minimize hum the turntable lead should be kept away from the mains wiring, and any separate turntable ground lead should be attached firmly to the earth terminal on the rear of the amplifier. A switch adjacent to the disc input sockets allows the selection of either MM or MC input. Facing the back of the amplifier, move the switch to the right for use with MM or high output MC cartridges and to the left for use with normal(low output)MC cartridges.

**Note:** Never operate the MM/MC selector switch with the volume control turned up as the resultant electrical surge may damage your loudspeakers.

### CD INPUT

The CD input is suitable for use with any CD player. Connect your CD player to the amplifier using the phono sockets marked "CD".

### TUNER INPUT

The Tuner input is suitable for use with most AM/FM tuners. Connect your tuner to the amplifier using the phono sockets marked "Tuner".

### AUXILIARY INPUT

The Auxiliary input is suitable for use with any extra source processing a line level output, perhaps a second tuner or CD player, or an additional tape or video recorder wired for replay only.

The auxiliary input is in parallel with the analog output of the USB connector.

### TAPE INPUT

This input is suitable for use with most cassette, reel to reel or video recorders.

Connect the "record" leads of your tape recorder to the phono sockets marked "Tape out" on the rear of your amplifier using phono/phono leads.

Connect the "playback" leads of your tape recorder to the phono sockets marked "Tape in" on the rear of your amplifier using phono/phono leads. If your tape machine processing DIN outputs, then DIN/phono leads, or a DIN/phono adaptor can be used. If you experience level matching problems when using DIN connectors, please consult your tape machine manufacturer.

### PRE OUT/MAIN IN

Normally the pre-amplifier and power amplifier sections of this unit are connected together via factory-installed U-shaped metal jumpers that bridge the PRE-OUT and MAIN-IN jacks. Check to be sure that they are fully inserted into the jacks and that nothing is touching them.

By switching OFF the power and removing the metal jumpers, you can connect a signal processor such as a surround-sound decoder or an electronic crossover in the path between preamp and power amp. Connect a cable from PRE-OUT to the processor's input and a second cable from the processor's output to MAIN IN.

### LOUDSPEAKERS

Your AMC amplifier is designed to drive loudspeakers with a nominal impedance of 4-8 ohms.

However, XIA can only drive 4 ohm speakers by switching the impedance selector on the rear panel of the unit to the 4 ohm setting.

## **LOUDSPEAKER CONNECTIONS**

The loudspeaker output terminals will accept 4mm(banana)plugs, spade connectors, pin connectors or bare wires. Connect the negative side(usually black)of your left hand loudspeaker lead to the black terminal of the two terminals marked "left" on the rear of your amplifier. The other side of your left hand speaker lead(the positive side or red)should be connected to the red terminal marked "left". Repeat this operation for the right hand loudspeaker.

Your AMC amplifier is capable of generating high peak currents, so all connections must be checked to avoid inadvertent short circuits and to ensure a good clean contact.

**UNDER NO CIRCUMSTANCES SHOULD THE OUTPUTS BE SHORTED TOGETHER.**

Such action will damage output circuitry and is not covered by guarantee.

## **AC SWITCHED OUTLETS**

The AC convenience outlet is fitted so that other components can be powered when your amplifier is switched on.

**UNDER NO CIRCUMSTANCES SHOULD THE CASE OF THE AMPLIFIER BE OPENED BY ANYONE OTHER THAN A QUALIFIED ENGINEER, AS DANGEROUS VOLTAGES ARE PRESENT INSIDE. ANY UNAUTHORISED REPAIR MAY INVALIDATE YOUR WARRANTY.**

## **HEATSINK/VENTILATION REQUIREMENTS**

The heat produced by your AMC amplifier during normal operation is dissipated by an internal finned heatsink. It is perfectly normal for your amplifier to become quite warm and to radiate heat when in use, especially if it is run near full power. However, if it becomes too hot to touch, switch off at once and contact your dealer.

It is very important that there is adequate

ventilation for the whole of the amplifier. Do not place the unit on a rug or other soft surface that it could sink into, obstructing the air inlets on its underside, and take care not to obstruct the outlet grille on the top cover.

## **AC Selector (115V or 230V)**

The AC Selector will be set to the AC Power voltage of your country from factory. But in case if your XIA is not received directly from factory or you move from one country to the other, the AC selector might be set at different voltage. So, before plug power cord into your wall AC outlet, please always check if the Voltage selector set to the voltage of the country you will use XIA or not and set to correct voltage. When the AC Selector set to 115VAC, the XIA can be used in countries with AC Power Voltage between 110V and 120V. When the AC Selector set to 230V, the XIA can be used in countries with AC Power Voltage between 220V and 240V.

## **AC RECEPTACLE**

The AC RECEPTACLE is for you to plug in with power cord attached in the packing or you can plug in with other power cord with your preferences.

## FRONT PANEL CONTROLS

### POWER SWITCH

The amplifier is turned on by depressing the power switch. The small indicator above the switch will glow blue. Before switching on, always set the volume control to minimum to avoid damage to your loudspeakers.

### BALANCE CONTROL

The Balance Control adjusts the relative levels of the left and right channels. It has no effect on recordings being made. A detent at the 12 o'clock position marks the point of equal balance. Rotation of the Balance Control to the right(clockwise) decreases the level of the left channel so that only the right channel is heard. Rotation to the left shifts the sonic image toward the left speaker.

Adjust the Balance Control to produce a natural spread of sound across the space between the speakers, with any monophonic sound(such as a radio announcer's voice) appearing as a phantom image centered midway between them. Recordings often contain small errors in channel balance, typically no more than 2dB; but this is enough to degrade stereo imaging. Small compensating changes in the setting of the Balance Control can significantly improve the depth and stability of the stereo image.

### INPUT SELECTION

The rotary input selector switch selects which input signal(Phono, CD, Tuner or Aux/USB)is fed to the power amplifier. The selected signal is also fed to the "Tape out" sockets for recording.

### TAPE MONITOR SWITCH

The Tape Monitor switch is generally left in the "Source" position, so that the programme selected by the input switch is routed to the loudspeakers/headphones. If the Tape Monitor switch is turned to the "Tape" position,the signal from the tape recorder is routed to the loudspeakers/

headphones.

If your tape machine is a three head type suitable for A/B monitoring, then turning the Tape Monitor switch to the "Tape" position will allow full off-tape monitoring of the recorded signal to be carried out via the loudspeakers/headphones.

### VOLUME CONTROL

The volume control adjusts the overall loudness level of the sound. It has no effect on the level of the signals fed to the TAPE OUT jacks for tape recording. The Volume control is designed for accurate tracking of its two channels, so that the stereo balance will not shift noticeably as the loudness of the sound is varied.

### tone controls

The tone controls on your AMC amplifier use low colouration passive circuitry to ensure the minimum degradation of the music signal. They are designed to gradually modify the tonal emphasis of the music and to compensate for such problems as difficult room acoustics.

If required, the tone controls can be completely by-passed with a resultant increase in sound quality. To do this simply turn the Direct/Mute switch to the "Direct" position.

With the Direct/Mute switch in the "normal"position, the tone controls will cut their respective frequencies when turned anti-clockwise and boost them when turned clockwise. The flattest response is found when the controls are in the "12 o'clock position.

### PHONES

The headphone socket will accept any headphones fitted with a standard 1/4"(6.35mm)stereo jack plug. When Headphones are in use, the output to your loudspeakers will be cut and all the amplifier's functions will operate as normal.

## **MUTING**

By turning the Direct/Mute switch to "Mute" it is possible to cut the output to your loudspeakers, a feature which will prove useful in situations where a lower volume level may be required for short periods(e.g. for a phone call ect.)

## **TAPE RECORDING**

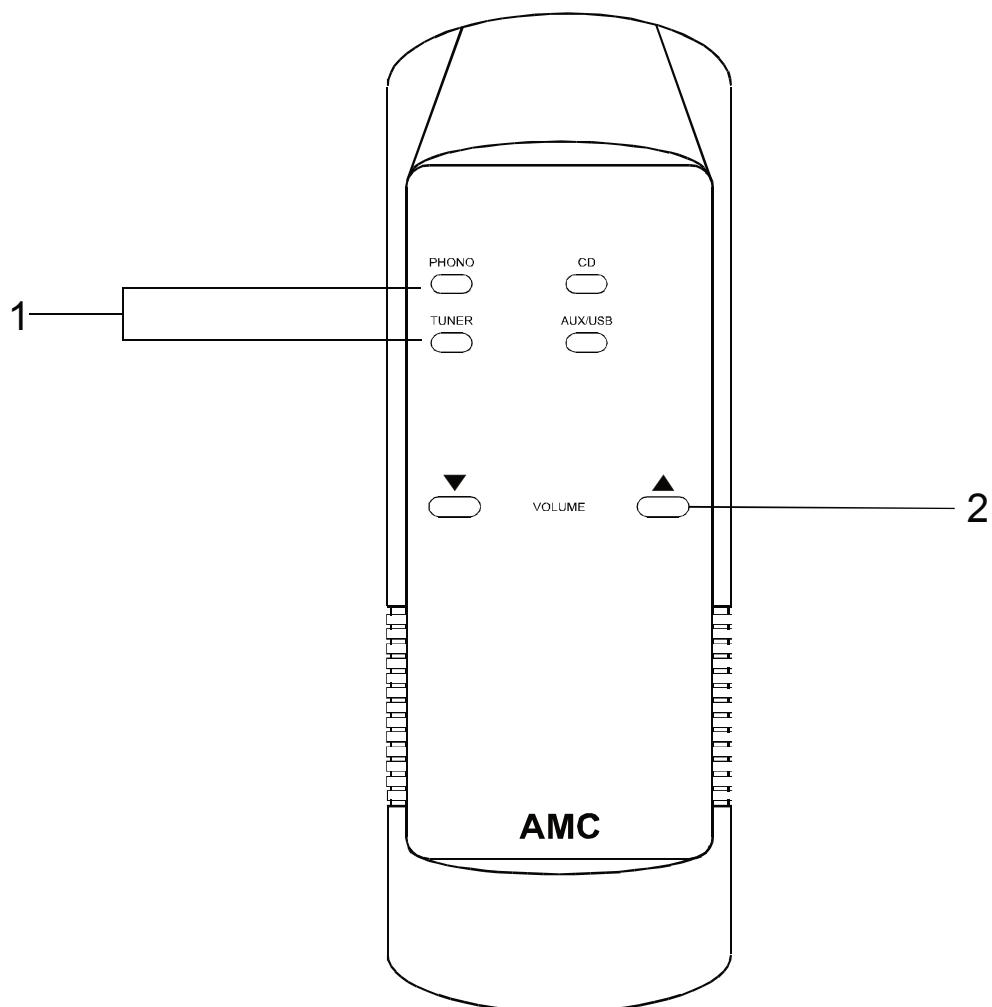
All sources, Phono, CD, Tuner and Aux/USB can be recorded via the tape connections. To record an input, select the required source and set your recorder to the record mode.

To record from one tape recorder to another, the playback recorder should be plugged into the Aux/USB socket, and the recording machine into the Tape socket. The input selector switch should be set to "Aux/USB". A recording can now be made in the normal way.

## **PLAYBACK**

Set the Tape Monitor switch to the "Tape" position and set your recorder into the playback mode.

## REMOTE CONTROL



### 1.INPUT SELECTOR

These buttons select any one of the eight sources that are connected to the inputs of the XIA (PHONO, CD, TUNER, AUX/USB).

### 2.VOLUME CONTROL

△: VOLUME UP

▽: VOLUME DOWN

# SPECIFICATIONS

Rated Power into 8/4 ohms.....45/60W  
With both channels driven  
Rated T.H.D.20Hz-20KHz.....0.05%  
1KHz clipping power into 8/4 ohms.....48/65W

## Input Sensitivity for 1W/Rated Power into 8 ohms:

High level inputs.....23mV/150mV  
Phono input MM.....0.5mV/2.7mV  
MC.....0.05mV/0.27mV

## Input impedance:

High level inputs.....20K ohms  
Phono input MM/MC.....47 ohms/100pF

## Frequency response:

Tone bypass 20Hz-20KHz.....+/-0.5dB  
Normal 20Hz-20KHz.....+/-1.0dB  
High level inputs -3dB.....10Hz/60KHz

## Signal to noise ratio(ref.1W/8 ohms):

High level inputs "A" WTD.....88dB  
Phono inputs"A" WTD.....80dB  
Separation 20Hz-20KHz .....>65dB

## Tone control range:

Bass at 100Hz.....+/-10dB  
Treble at 10KHz.....-8/+11dB  
Overall feedback.....26/29dB

## PHYSICAL:

Dimensions (W x H x D).....430x82x288 mm  
Net weight.....8.2 Kgs  
Shipping weight (4 pieces).....34.3 Kgs  
Finish.....black or silver

Weltronics Corp. reserved the right to improve its products at any time. Specifications are subject to change without notice.

# SAFETY INSTRUCTION

## 1. READ INSTRUCTIONS

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

## 2. RETAIN INSTRUCTIONS

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

## 3. HEED WARNINGS

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

## 4. FOLLOW INSTRUCTIONS

All operating and use instructions should be followed.

## 5. 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.

## 6. CARTS AND STANDS

The appliance should be used only with a cart or stand that is recommended by the manufacturer.

- 6A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



## 7. WALL OR CEILING MOUNTING

This equipment is not designed for use mounted on a wall or a ceiling.

## 8. VENTILATION

The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings, or placed in a built-in installation, such as bookcase or cabinet that may impede the flow of air through the ventilation openings.

## 9. HEAT

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

## 10. POWER SOURCES

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

## 11. POWER-CORD PROTECTION

Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

## 12. CLEANING

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

## 13. NON USE PERIODS

The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

## 14. OBJECT AND LIQUID ENTRY

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

## 15. 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.

## 16. 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 been 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 is damaged.

## 17. POWER LINES

(APPLIES TO TUNER AND RECEIVERS ONLY)

An outdoor antenna should be located away from power lines.

## 18. OUTDOOR ANTENNA GROUNDING

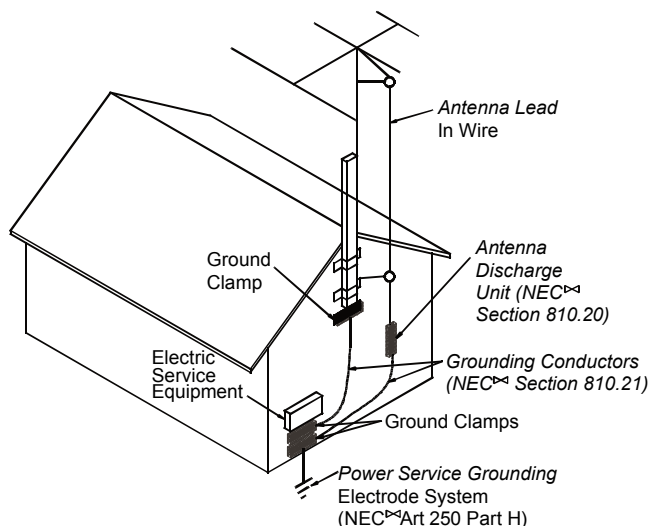
(APPLIES TO TUNER AND RECEIVERS ONLY)

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. 70-1984, 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.

- a) Use No. 10 AWG (5.3 mm<sup>2</sup>) copper, No. 8 AWG (8.4 mm<sup>2</sup>) aluminum, No. 17 AWG (1.0 mm<sup>2</sup>) copper-clad steel or bronze wire, or larger, as a ground wire.
- b) Secure antenna lead-in and ground wires to house with stand-off insulators spaced from 4-6 feet (1.22-1.83 m) apart.
- c) Mount antenna discharge unit as close as possible to where lead-in enters house.
- d) Use jumper wire not smaller than No. 6 AWG (13.3 mm<sup>2</sup>) copper, or the equivalent, when a separate antenna-grounding electrode is used. See NEC Section 810-21(j).

Antenna Grounding According to the National Electrical Code



≈ National Electrical Code  
Available from library, book  
stores, or National Fire Protection  
Association (Batterymarch Park,  
Quincy, MA 02269).

**WELTRONICS CORP.**

LONDON/L.A.

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