

AMC

US24192i DIGITAL PRE-AMPLIFIER

US24192i_pa DIGITAL INTEGRATED AMPLIFIER



AMC
IA PRODUCTS WITH 25 YEAR LIFE USING MODULE CONCEPT



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 DEVIET UN CHOC ELECTRIQUE ET LES CONSEQUENCES GRAVES QUI POURRAIENT EN RESULTER, 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 CHOCS 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 US24192i** or **US24192i_pa** can accept any digital data stream, for example, USB, optical or S/PDIF digital outputs, and up-sample the information to 24-bit/192KHz digital data stream. This data is applied to the input of a high resolution digital-to-analog converter (DAC), providing you with the equivalent sonic performance of an SACD/DVD Audio system.

Once you connect digital output signal from your DVD, computer, game console, Apple TV or the other appliances to **AMC US24192i** or **US24192i_pa**, you can start to enjoy high quality sound at affordable price.

The **AMC US24192i** or **US24192i_pa** is designed to meet professional quality performance standard and to provide superior value.

Selected grade components are utilized throughout the circuit design with special emphasis on components within the audio path to assure stable and consistent performance.

The **AMC US24192i** or **US24192i_pa** is providing with the most popular input jacks like RCA jack, optical jack and USB jack for ease of interfacing digital signal to the back panel.

Provide an accurately calibrated output level in accordance with the EIA (Electronic Industrial Association) recommended standard of 2 volts. This output level provides the best possible performance for audiophile

US24192i_pa

US24192i_pa is **US24192i** plus 2 channel audio digital power amplifier.

INSTALLATION

Your AMC US24192i is supplied with universal switching mode power supply cover 100V~240V mains supply voltage.

US24192i_pa is supplied with 115V/230V AC mains select switch on rear panel and 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 US24192i_pa. If not, please switch the AC selector switch to correct position. The cores of the mains lead are colored in accordance with the following code:

Blue -Neutral

Brown -Live

Note: Export units for certain markets have molded mains plugs fitted as standard.

As the colors in the mains lead may not correspond with the colored markings identifying the terminals in your plug, proceed as follows:

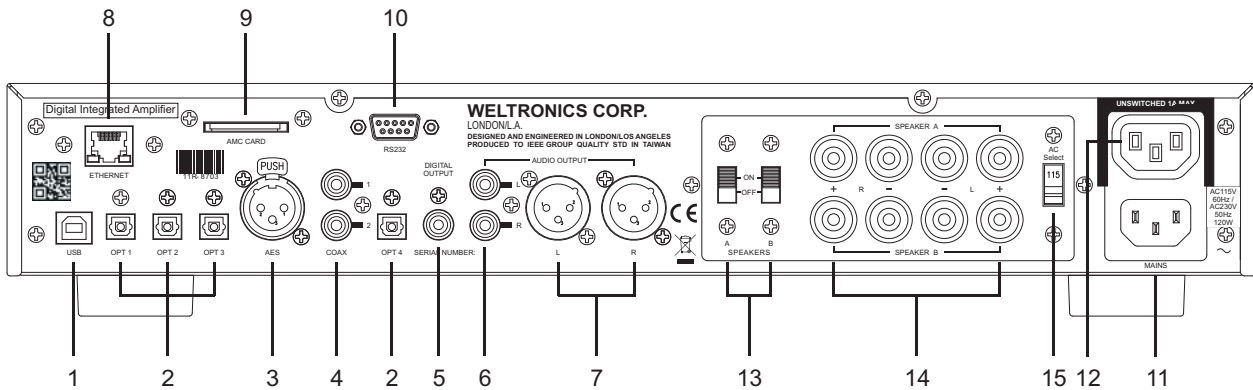
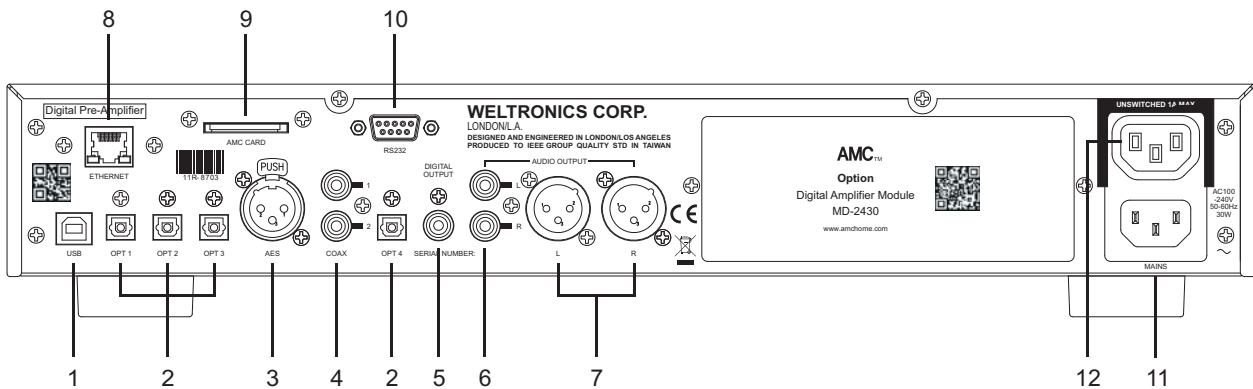
The wire which is colored blue must be connected to the terminal which is marked by the letter N, or colored black or blue. The wire which is colored brown must be connected to the terminal which is marked by the letter L, or colored red or brown.

FUSES

If the mains plug is fused, fit a 3.15amp fuse. Your AMC product 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.

REAR PANEL CONNECTIONS

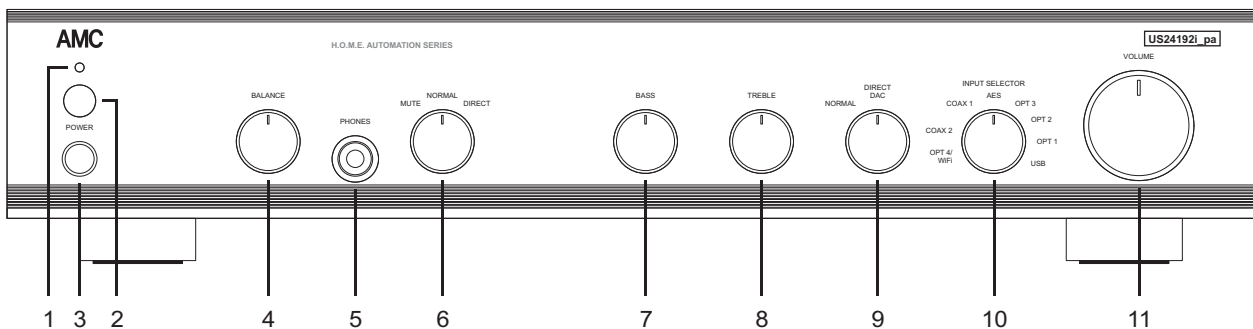
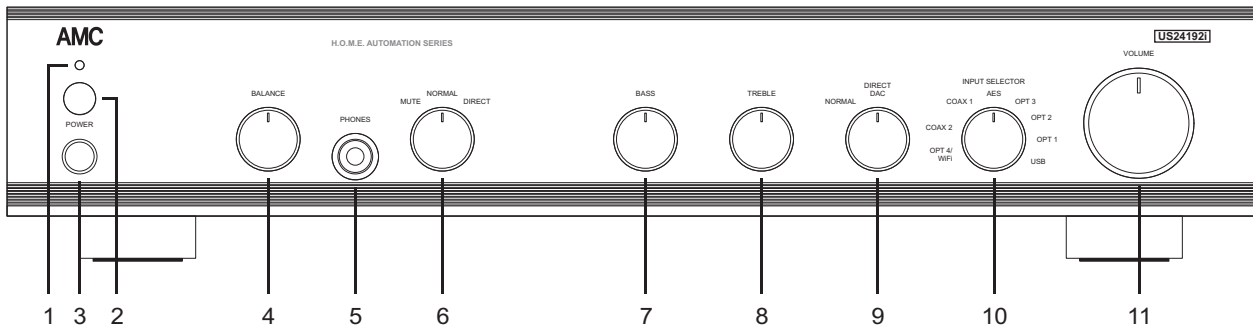
REAR PANEL



- | | |
|------------------------------------|-----------------------------|
| 1.USB INPUT | 9.AMC CARD SLOT (OPTION) |
| 2.OPTICAL INPUTS | 10.RS232 CONNECTOR |
| 3.AES INPUT | 11.AC RECEPTACLE |
| 4.COAXIAL INPUTS | 12.AC SWITCHED OUTLET |
| 5.DIGITAL OUTPUTS | |
| 6.UNBALANCED AUDIO OUTPUTS | MD2430 MODULE ONLY |
| 7.BALANCED DL OUTPUTS | 13.SPEAKER ON/OFF |
| 8.ETHERNET RJ45 CONNECTOR (OPTION) | 14.SPEAKER TERMINALS |
| | 15.AC MAINS SELECTOR SWITCH |

FRONT PANEL CONTROLS

FRONT PANEL



1. POWER INDICATOR
2. INFRARED RECEIVER
3. POWER SWITCH
4. BALANCE CONTROL
5. PHONES JACK
6. MUTE/NORMAL/DIRECT SWITCH

7. BASS CONTROL
8. TREBLE CONTROL
9. DIRECT DAC/NORMAL SWITCH
10. INPUT SELECTION SWITCH
11. VOLUME CONTROL

REAR PANEL CONNECTIONS

A/C OUTLET

The A/C convenience outlet is fitted so that other components can be powered when your amplifier is switched on. You must fit an Standard 3 pin plug, available from most specialist dealers.

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 UNAUTHORIZED REPAIR MAY INVALIDATE YOUR WARRANTY.

INPUTS

USB INPUT

Connect USB Type B input to your PC through a Type A to Type B USB cable.

OPTICAL INPUTS

Connect TOSLINK optical inputs to digital sources through a TOSLINK Fiber-Optic AUDIO cable.

AES INPUT

Connect AES input to audio sources XLR connector.

COAXIAL INPUTS

Connect COAXIAL inputs to your S/PDIF sources through a RCA cable.

DIGITAL OUTPUT

Selected S/PDIF output can be connected to your recording devices.

UNBALANCED AUDIO OUTPUT

Connect unbalanced audio out to power amplifier input through a RCA-RCA cable.

BALANCED AUDIO OUTPUT

Connect balanced audio out to power amplifier input through a XLR-XLR cable.

ETHERNET RJ45 CONNECTOR (OPTION) (OPTION)

AMC CARD SLOT (OPTION) (OPTION)

RS232 CONNECTOR

US24192i/US24192i_pa can be hooked to a control system through the RS-232 connector. The RS-232 can be hooked up to USB Hub or Ethernet Switch through RS232 to USB or RS232 to Ethernet adaptor. Through the RS232 connector, US24192i/US24192i_pa can accept commands from your system controller and feed back status to your controllers and touch panels. For details of RS-232 commands, please refer to the RS-232 appendix.

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.

AC SWITCHED OUTLET

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 UNIT BE OPENED BY ANYONE OTHER THAN A QUALIFIED ENGINEER, AS DANGEROUS VOLTAGES ARE PRESENT INSIDE. ANY UNAUTHORISED REPAIR MAY INVALIDATE YOUR WARRANTY.

MD2430 MODULE ONLY

SPEAKER A/B ON/OFF

Speaker System A & B can be switched on or off separately. If you want to connect 2 speaker system simultaneously, the speaker impedance shall not low than 8 ohm.

SPEAKER TERMINALS

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 SPEAKER TERMINALS BE SHORTED TOGETHER.

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

AC MANIS SELECTOR SWITCH

The AC Selector will be set to the AC power voltage of your country from factory. But in case if your US24192i_pa 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 306d or not and set to correct voltage. When the AC Selector is set to 115VAC, the US24192i_pa can be used in countries with AC Power Voltage between 110V and 120V. When the AC Selector is set to 230V, the US24192i_pa can be used in countries with AC Power Voltage between 220V and 240V.

FRONT PANEL CONTROLS

POWER INDICATOR

The blue LED will be lit when power switch is pressed.

INFRARAD RECEIVER

Receiving infrared signal from remote control.

POWER SWITCH

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

NOTE: Your US24192i_pa will play music almost immediately after being switched on. However, in common with other audiophile products, the internal circuits take some time to stablize fully, and the best possible sound quality may not be obtained until the amplifier has had some time(possibly an hour or two) to warm up.

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.

PHONES JACK

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.

TONE CONTROLS

The tone controls on your US24192i/US24192i_pa use low coloration 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.

(DETENTED POSITION)

By turning the MUTE/NORMAL/DIRECT switch to "Mute" it 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.).

DIRECT DAC/NORMAL SWITCH

By turning the DIRECT DAC/NORMAL SWITCH to "Direct DAC" the Audio Outputs (Balanced & Unbalanced) on rear panel work as pure DAC output, only input selector switch is workable and other controls on front panel are not affect the Audio Outputs.

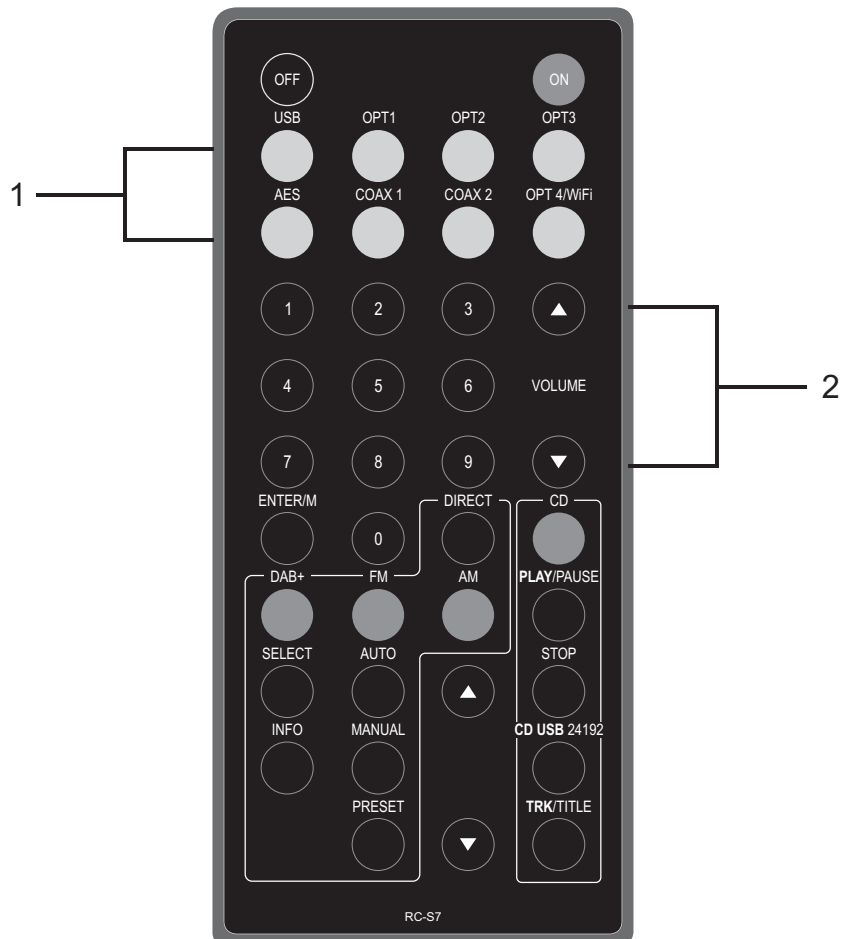
INPUT SELECTION SWITCH

The rotary input selector switch selects which input signal is fed to the Audio Output & power amplifier (US24192i-pa).

VOLUME CONTROL

The volume control adjusts the overall loudness level of the sound. 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.

REMOTE CONTROL



1.INPUT SELECTOR

These buttons select any one of the Eight sources that are connected to the inputs of the US24192i/US24192i_pa.

2.VOLUME CONTROL

△: VOLUME UP

▽: VOLUME DOWN

Other control buttons are not functional on US24192i/US24192i_pa.

SPECIFICATIONS

AUDIO OUTPUT (Ref. to RCA jack outputs and "Direct" position, unless otherwise stated)

Output Level @1KHz/0dB	2V
THD + Noise (1KHz/0dB/A-weighted)	0.0025%
S/N Ratio (A-weighted/ with all zeros test disc)	114dB
Frequency Response @1KHz/0dB	
Direct	+/-0.2dB
Normal	+/-1.0dB
Dynamic Range	>100dB
Linearity	+/-0.5dB down to -90dB
Channel Separation	>100dB
Channel Imbalance	+/-0.1dB
Output Impedance	220 ohm
Tone Control Range - "Normal"	
Bass Boost/Cut @100Hz	+/-8.5dB
Treble Boost/Cut @10KHz	+/-8dB

S/PDIF DIGITAL OUTPUT

Output Level	0.5Vpp
Load Impedance	75 Ohm
Peak emission wave length	660nm

SPEAKER OUTPUT

Rated Power into 8/4 Ohm (w/both channels driven)	25W/38W
Rated THD + Noise	0.05%
S/N ratio @rated power	87dB
Frequency Response	
Bypass (20Hz/20KHz)	-0.1/+1.6dB
Normal (20Hz/20KHz)	-0.8/+1.2dB
Separation @1KHz	70dB

OTHERS

Dimension (WxHxD)	430x112x288mm
Net Weight	10.8Kg
Shipping Weight (2 pieces)	23.3Kg

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:

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

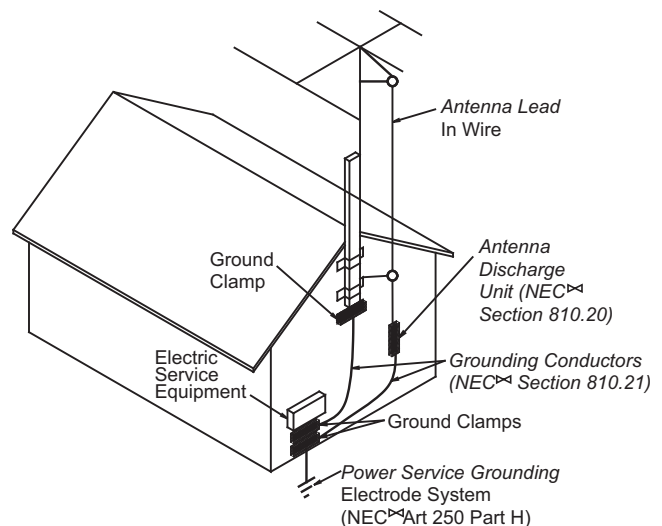
(APPLIES TO TUNER AND RECEIVERS ONLY)

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.

- Use No. 10 AWG (5.3 mm²) copper, No. 8 AWG (8.4 mm²) aluminum, No. 17 AWG (1.0 mm²) copper-clad steel or bronze wire, or larger, as a ground wire.
- Secure antenna lead-in and ground wires to house with stand-off insulators spaced from 4-6 feet (1.22-1.83 m) apart.
- Mount antenna discharge unit as close as possible to where lead-in enters house.
- Use jumper wire not smaller than No. 6 AWG (13.3 mm²) 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).



21R-4261



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LONDON/L.A.

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