

AMC XP/XPi

Stereo Preamplifier

XP with 1U Rack Mount, XPi without



IA

AMC

AMC products with 25 year LIFE using MODUL-E concept

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 SI LES LAMES PEUVENT ETRE INSEREES A L'INTERIEUR EN LAISSANT 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 INSERTADO COMPLETAMENTE LAS LENGUETAS 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 authorized AMC service technician for internal conversion.

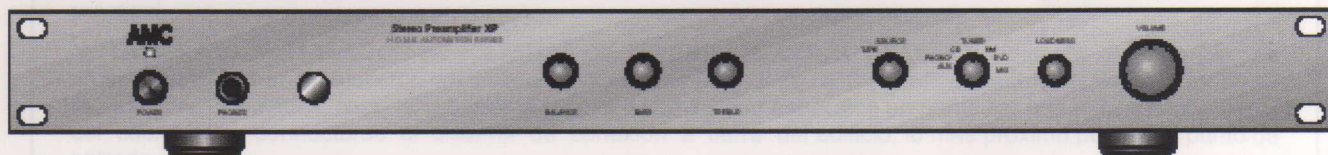
ATTENTION: Quelques pièces AMC sont munies de transformateurs à double ou à multi-voltage (indiqué au panneau arrière). Si vous voulez changer le voltage, veuillez rapporter votre appareil au technicien de AMC pour la transformer.

ZUR BEACHTUNG: Einige AMC Geräte sind mit Umwandler für unterschiedliche Netzspannungen ausgerüstet (Ein Vermerk auf der Rückseite weist dies an).

Die Anpassung, wenn notwendig, muß von einer qualifizierten 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, sirvase llevar el aparato a un técnico autorizado por AMC para su conversión interna.

NOTE TO CATV system installers: 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



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..

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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™ stereo preamplifier XP and XPi offer, in an innovative and elegant design, an affordable combination of high quality sound reproduction and comprehensive facilities.

The preamplifier accepts six inputs (Phono/Aux, CD, Tuner, Multimedia, DVD and Tape) and has full tape monitoring capabilities.

To get the best from your preamplifier please study this manual carefully. Should you experience any problems, please discuss with your dealer who has full knowledge of AMC products for uses in a variety of systems or you can get in touch with AMC International through services on AMC Web page <http://www.amchome.com>

INSTALLATION

Your AMC preamplifier is set to work on your local main supply voltage. Check that your local mains supply voltage agrees with the voltage setting indicated on the back panel of the preamplifier. If it is not, please contact your dealer or national distributor (you can check details info of national distributor on AMC Web page <http://www.amchome.com>) for details on how to proceed further.

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, process as follows:

The wire, which is colored blue, must be connected to the terminal, which 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 amp fuse. Your AMC preamplifier contains fuses, which are designed to protect the preamplifier and prevent the unit from the occurrence of a dangerous fault condition. These should only be inspected and replaced by a competent engineer using the correct replacement types.

FEATURE

- Features Input "MIX" mode: Installed with mixing circuitry specially designed for Multimedia applications. End users can use the MIXING FEATURE to listen to music or program from Phono/Aux, CD, Tuner or DVD, at the same time working on computer (Connect sound card outputs

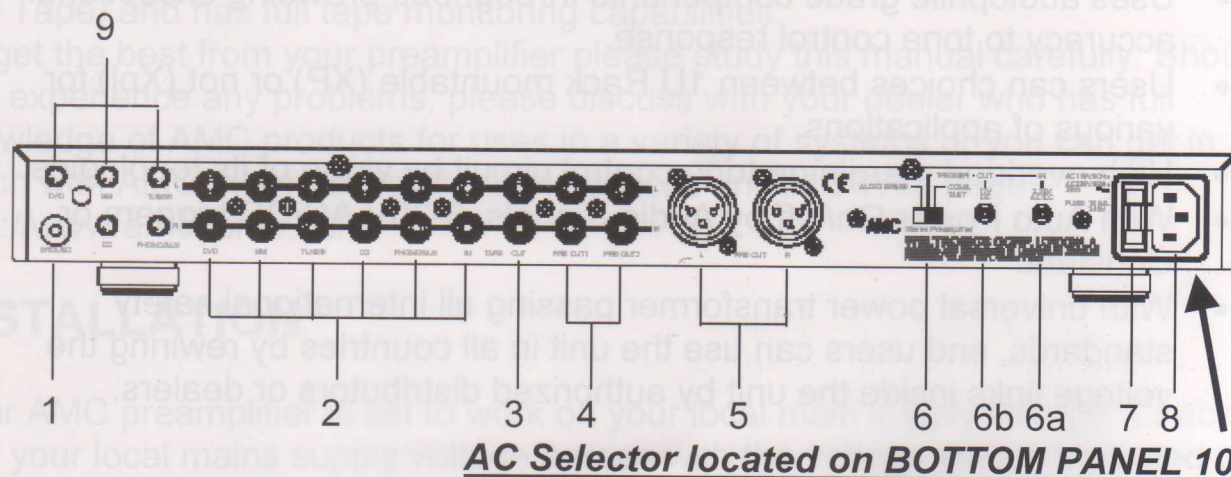
to multimedia inputs). All will come out simultaneously from the same pair of speakers with the best possible sound quality.

- Adjustable Input Sensitivities for all Inputs
- With True Balanced Outputs for PA applications or applications require balanced outputs.
- Special designed passive Tone control circuit to give natural sound quality.
- Uses audiophile grade components throughout, providing exceptional accuracy to tone control response.
- Users can choices between 1U Rack mountable (XP) or not (Xpi) for various of applications.
- High overload margin on tone control circuit by virtue of its topologies.
- With Auto Power On/Off by Audio Signals, 3-30V AC/DC triggers or Constant.
- With universal power transformer passing all international safety standards, end users can use the unit in all countries by rewiring the voltage links inside the unit by authorized distributors or dealers.



REAR & BOTTOM PANEL CONNECTIONS / FRONT PANEL CONTROLS

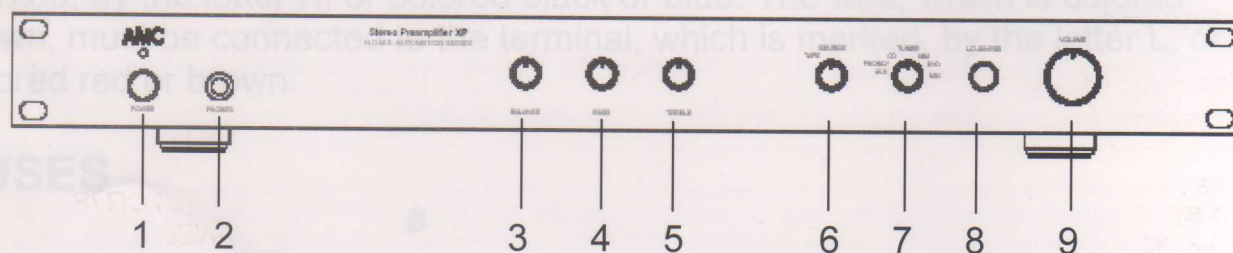
REAR PANEL



1. GROUND TERMINAL (Ready for Phono)
2. INPUTS
3. TAPE OUTPUT
4. PRE OUT1/PRE OUT2
5. XLR BALANCED PRE OUT3

6. AUTO ON/OFF SWITCH
- 6a. 12V DC TRIGGER OUT
- 6b. 3-30V AC/DC TRIGGER IN
7. FUSE
8. AC RECEPTACLE
9. MIX INPUT SEN. CONT.
10. AC Selector (115V or 230V)
(On bottom panel)

FRONT PANEL



1. POWER SWITCH
2. PHONES
3. BALANCE CONTROL
4. BASS CONTROL
5. TREBLE CONTROL

6. TAPE MONITOR SWITCH
7. INPUT SELECTION SWITCH
8. LOUDNESS SWITCH
9. VOLUME CONTROL

REAR PANEL CONNECTIONS

1. GROUND TERMINAL (READY FOR PHONO)

If your LP turntable is equipped with a grounding wire, connect it to this terminal.

2. INPUTS: DVD, MULTIMEDIA, TUNER, CD, PHONO/AUX (READY FOR PHONO), TAPE IN

These inputs are for connection to Audio/Video products via RCA Jacks.

3. TAPE OUTPUT

The output is for recording and is controlled by the SOURCE/ TAPE Switch on the front panel.

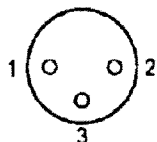
4. PRE OUT1 / PRE OUT2

Connecting to an external power amplifier or processor, such as a surround-sound decoder. Use a twin RCA-to-RCA cable to connect to the left and right Line Inputs of the power amplifier or processor from the PRE OUT connectors.

5. XLR Balanced PRE OUT3

These two connectors are balanced outputs of the preamplifier with XLR connector for Professional Audio applications or applications require balanced connections for much better S/N ratio and sound quality.

Pin	Signal
1	GND
2	+
3	-



XLR-Male(Output)

6. AUTO ON/OFF SWITCH

There are three positions of the AUTO ON/OFF SWITCH. The functions of each position are described as following:

AUDIO SENSE

At this position XP / XPi will be turned on or off automatically depending on the level of audio signal inputs to XP / XPi. With audio signal higher than 10 mV connected to any of the five inputs of XP / XPi, the XP / XPi will be automatically turned on. The XP / XPi will be kept on until the absence of audio signal or the level of audio signal lower than 10mV for around 5 minutes. The XP / XPi will then get into stand-by mode.

Note: When the switch is set to AUDIO SENSE position, the XP / XPi is designed to be turned on when the AC line cord is plugged into to the AC outlet at the first time even there is no audio signal to any XP / XPi input. However, if the absence of signal is longer than 5 minutes, XP /

XPi will be automatically turned to stand-by mode for power saving.

TRIGGER

Trigger in 3-30V AC/DC (6a)

The XP / XPi can be turned on automatically when a trigger voltage is received from another component. The trigger voltage range required to turn the XP / XPi on is AC or DC voltage between +3V to +30V and requires only 0.2mA of current.

Trigger out 12V DC (6b)

When XP / XPi is turned on it will automatically provide a trigger out of 12V DC voltage.

It is provided as a convenience so you can "daisy-chain" the trigger voltage to turn on other components. The trigger out will be cut off when XP / XPi is in stand-by mode.

CONSTANT

With this position the XP / XPi will be turned on or switched off by its master power switch on front panel.

NOTE: The bi-color power LED above the power switch indicates the power status of the unit. The RED led will be lit up when the XP / XPi is in stand-by mode. The GREEN led will be lit up when power of XP / XPi is ON.

7. FUSE

Primary Fuse is located here.

8. 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.

9. MIX INPUT SENSITIVITY CONTROLS

Under Mix position of input selecting switch, the input sensitivities (the level of input signal needed for given output level) of five inputs (DVD, Multimedia, Tuner, CD and Phono/Aux) can be adjusted individually using these controls. Adjusting the sensitivities avoids different levels between sources mixed together. And so you can get best balance between all signal sources.

10. AC Selector (115V or 230V)

PLEASE NOTE THE AC SELECTOR IS LOCATED ON BOTTOM PANEL.

The AC Selector will be set to the AC Power voltage of your country from factory. But in case if your XP / XPi is not received directly from factory or you move from one country to the other, the AC selector might 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 XP / XPi or not and set to correct voltage. When the AC Selector set to 115VAC, the XP / XPi can be used in countries with AC Power Voltage between 110V and 120V. When the AC Selector set to 230V, the XP / XPi can be used in countries with AC Power Voltage between 220V and 240V.

FRONT PANEL CONTROLS

1. POWER SWITCH

When AUTO ON/OFF SWITCH on rear panel switched to CONSTANT, the XP / XPi will be turned on or switched off by the power switch.

When AUTO ON/OFF SWITCH on rear panel switched to other two positions, the power switch has to be switched to on and the detail operations of the AUTO ON/OFF are described on the section of AUTO ON/OFF SWITCH of Rear Panel. Before switching on, always set the volume control to minimum to avoid damage to your loudspeakers.

NOTE: The bi-color power LED above the power switch indicates the power status of the unit. The RED led will be lit up when the XP / XPi is in stand-by mode. The GREEN led will be lit up when power of XP / XPi is ON.

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

2. 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 functions will operate as normal.

3. BALANCE CONTROL

The Balanced Control adjusts the relative levels of the left and right channels. It has no effects on recordings being made. A detent at the 12 o'clock position marks the point of equal balance. Rotating the Balance Control to the right (clockwise) decreases the level of the left channel so that only the right channel is heard. Rotating 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 setting of the Balance Control can significantly improve the depth and stability of the stereo image.

4. BASS CONTROL

The Bass Control adjusts the relative level of the low frequencies in the sound. The electrical response of the preamplifier is flattest when the control is set in the detent or 12 o'clock position. Rotating of the knob to the right (clockwise) increases the level of low frequency sounds, and rotating counter-clockwise decreases their level. Adjust the Bass Control to achieve the tonal balance that sounds most natural to you.

5. TREBLE CONTROL

The Treble Control adjusts the relative level of the high frequencies in the sound. The electrical response of the preamplifier is flattest when the control is set in the detent or 12 o'clock position. Rotating of the knob to the right (clockwise) increases the level of high frequency sounds, and rotating counter-clockwise decreases their level. Adjust the Treble Control to achieve the tonal balance that sounds most natural to you.

6. TAPE MONITOR SWITCH

The Tape Monitor switch is generally left in the "SOURCE" position. So that the programs selected by input selector are routed to the Pre-Outs / Headphones. If the Tape Monitor switch is turned to the "TAPE" position, the signal from the tape recorder is routed to the Pre-Out/ 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 Pre-Outs/ Headphones.

7. INPUT SELECTION SWITCH

The rotary input selector switch selects which input signal (Phono/Aux, CD, Tuner, Multimedia or DVD) or mixed signal (MIX) is fed to the preamplifier. The selected signal is also fed to the "TAPE OUT" sockets for recording. End users can use the MIX position to listen to music or program from Phono/Aux, CD, Tuner or DVD, at the same time working on computer (connect Sound Card outputs to Multimedia inputs). All come out simultaneously from the PRE OUTS with the best possible sound quality.

8. LOUDNESS

Pressing this button engages a "loudness compensation" circuit which, at low-to-medium setting of the Volume control, boosts the bass and treble response of the amplifier. This is to compensate for the human ear's reduced sensitivity to low-frequency sounds at low loudness levels, and for the "masking" of high-frequency details by environmental noise. The LOUDNESS function should be disengaged when you are listening to music at life-like volume levels. And at low levels a more accurate, if less convenience, loudness compensation may be obtained by boosting the Bass control.

9. VOLUME CONTROL

The Volume Control adjusts the overall loudness level of the sound. It has no effect on the level of the signal 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.

SPECIFICATIONS

Line Level Inputs (Aux, CD, Tuner, Multimedia, DVD and Tape In)

Input impedance(R and C)	20Kohm/450pF
Input sensitivity 1KHz(ref.1V)	170mV
THD + SMPTE + IHF I.M.	<0.003%
Frequency response 20Hz-20KHz	+/-0.3dB
Frequency response -3dB	5Hz/110KHz
Signal to noise ratio "A" WTD (ref.0.5V)	>97 dB
Separation 20Hz-20KHz	>80 dB
Maximum input level	> 1 0 V

Line Level Outputs

Output impedance - Pre Out 1(unbalanced)	560 ohm
Pre Out 2 (unbalanced)	560 ohm
Pre Out 3 XLR (unbalanced)	60 ohm
Pre Out 3 XRL (balanced)	120 ohm
Output impedance - Phones	100 ohm
Maximum output level - Pre Out	>8.5V
Maximum output level – Phones (8 ohm load)	>250 mV
Maximum output level – Phones open circuit)	>9V

Tone Control

Bass at 100Hz	+8.5/-9.9 dB
Treble at 10KHz	+7.5/-8.2 dB

Others

Dimensions (WxHxD) XP (Rack Mount)	579x82(1U)x288mm
XPi (without Rack Mount)	430x82(1U)x288mm
Net weight	4.2 Kg
Shipping weight (4 pieces)	18.7 Kg

To enable continuous improvement, AMC reserves the right to change products specifications 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.

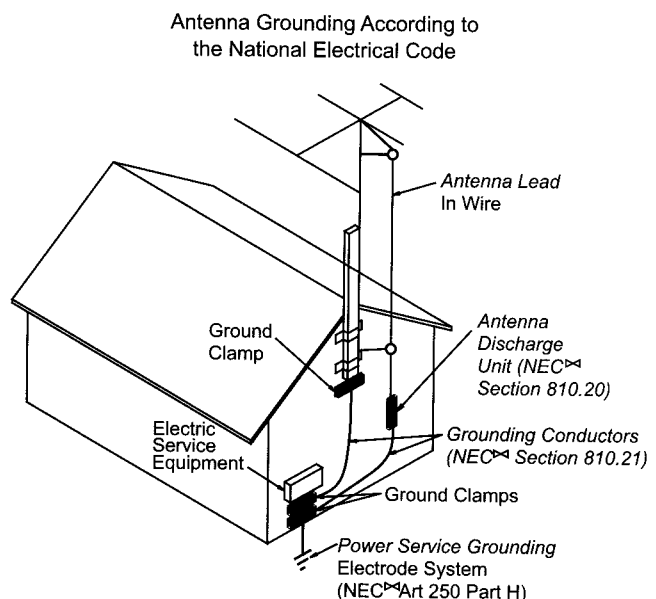
18. OUTDOOR ANTENNA GROUNDING

(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 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.
- 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 mm²) copper, or the equivalent, when a separate antenna-grounding electrode is used. See NEC Section 810-21(j).



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

WELTRONICS CORP.

LONDON/L.A.

AMC Web: <http://www.amchome.com>

PN: 21-IM-XP-XPi_A