



McIntosh Laboratory, Inc. 2 Chambers Street Binghamton, New York 13903-2699 Phone: 607-723-3512 [www.mcintoshlabs.com](http://www.mcintoshlabs.com)



XRT2.1K  
Left and Right  
Loudspeaker System  
Owner's Manual





## Important Safety Information is supplied in a separate document “Important Additional Operation Information Guide”

### Thank You

Your decision to own this McIntosh XRT2.1K Left and Right Loudspeaker System ranks you at the very top among discriminating music listeners. You now have “The Best.” The McIntosh dedication to “Quality,” is assurance that you will receive many years of listening enjoyment from this unit.

Please take a short time to read the information in this manual. We want you to be as familiar as possible with all the features and functions of your new McIntosh.

### Please Take A Moment

The serial number, purchase date and McIntosh Dealer name are important to you for possible insurance claim or future service. The spaces below have been provided for you to record that information:

Serial Number: \_\_\_\_\_

Purchase Date: \_\_\_\_\_

Dealer Name: \_\_\_\_\_

### Technical Assistance

If at any time you have questions about your McIntosh product, contact your McIntosh Dealer who is familiar with your McIntosh equipment and any other brands that may be part of your system. If you or your Dealer wish additional help concerning a suspected problem, you can receive technical assistance for all McIntosh products at:

McIntosh Laboratory, Inc.  
2 Chambers Street  
Binghamton, New York 13903  
Phone: 607-723-3512  
Fax: 607-724-0549

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### Customer Service

If it is determined that your McIntosh product is in need of repair, you can return it to your Dealer. You can also return it to the McIntosh Laboratory Service Department. For assistance on factory repair return procedure, contact the McIntosh Service Department at:

McIntosh Laboratory, Inc.  
2 Chambers Street  
Binghamton, New York 13903  
Phone: 607-723-3515  
Fax: 607-723-1917

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### General Information

**Caution: The XRT2.1K weight is 353.2 pounds (160.2 kg). It requires four or more persons to safely handle the Loudspeaker System.**

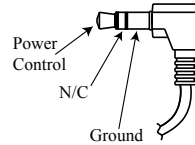
1. For additional connection information, refer to the owner's manual(s) for any component(s) connected to the XRT2.1K Left and Right Loudspeakers.
2. The design of the XRT2.1K Loudspeaker took into account the acoustic characteristics of the Front Panel Grille and it should be attached to the Loudspeaker for the best sonic performance.
3. If there is an obvious lack of high, mid or low frequencies after extended periods of overdrive, the Protection Device(s) may have activated. These devices will automatically reset when the volume level is greatly reduced until the output of the affected Loudspeaker Driver(s) returns to normal.
4. If it should become necessary to replace the supplied Input Terminal Connection Jumper Cables, order part number 320633SP from the McIntosh Parts Department:
5. When discarding the unit, comply with local rules or regulations. Batteries should never be thrown away or incinerated but disposed of in accordance with the local regulations concerning battery disposal.
6. For additional information on the XRT2.1K and other McIntosh Products please visit the McIntosh Web Site at [www.mcintoshlabs.com](http://www.mcintoshlabs.com).



## Connector/Cable Information

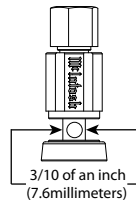
### Power Control Connector

The Power Control Output Jack sends Power On/Off Signals (+12 Volt/0 Volt) when another McIntosh Component is connected. A 3.5mm stereo mini phone plug is used for connection to the Power Control Output.



### Input Terminal Connector

When cables with spade lugs are used for Loudspeaker Connection, the spade lugs need an opening of at least 3/10 inch (7.6mm).



## Introduction

McIntosh Acoustic Engineers have achieved a very high level of acoustic performance in the Asymmetrical design of the XRT2.1K Left and Right Loudspeaker System which is based upon the last three and one-half decades of Loudspeaker Systems. The XRT2.1K provides superior spaciousness sound reproduction with unusual sound stage depth in a full range system.

The XRT2.1K utilizes Forty-Five 3/4 of an inch Alu-Magnesium Alloy Dome Tweeters. Refer to figure 1. There are Twenty-Eight 2 inch Alu-Magnesium Alloy Cone Upper Frequency Midranges. Refer to figure 2. Since the audio power is distributed among all the drivers, each driver does not have to work as hard, resulting in greater power handling capability, dramatic reduction in distortion and greater dynamic range.



Figure 1



Figure 2

The Low Frequency Mid-range Driver Section of the System consists of Two newly designed 6.5 inch Long-Throw Nanocarbon Fiber/Nomex/ Honeycomb Fiber Sandwich Cone. Refer to figure 3.

The Low Frequency Section consists of Six 8 inch, Long-Throw, Nanocarbon Fiber/Honeycomb Fiber Sandwich Cone Woofers. Refer to figure 4.

The Crossover Network used in the XRT2.1K Loudspeaker System is designed to ensure an even frequency response over the entire audible range. The Crossover Network utilizes Capacitors and Inductors with high performance and high current capacity. Refer to figures 5, 6 and 7. The XRT2.1K uses low loss (DCR) Inductors in the crossover network. The type of Inductor used in each section of the crossover network has been chosen with special metallic cores for high linearity, even at high power levels. This prevents distortion of the music at any frequency. The Capacitors used are a special type with oil cores between its metal plates which handles high power, high voltage and prevents arcing to improve the acoustic sound quality.



Figure 3



Figure 4

The resistors used in the crossovers have a built-in heatsink to maintain their resistance values while at the same time handles high power levels.

The crossover network also employs self resetting high current PTC type fuses to provide an extra measure of protection for the Loudspeaker Drivers.

The enclosure is an important part of the XRT2.1K Loudspeaker System. It has multiple front to back and side to side internal braces to form a dampened rigid Loudspeaker enclosure. The Loudspeaker's small footprint allows for a variety of different placements in a room.

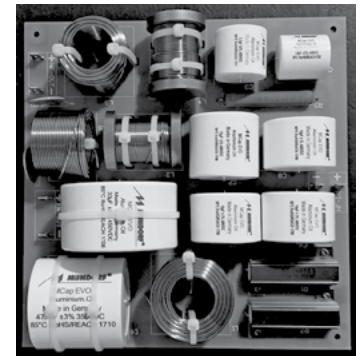


Figure 5



Figure 6

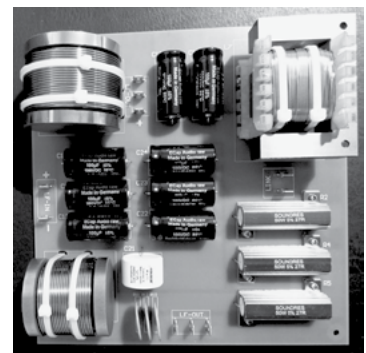


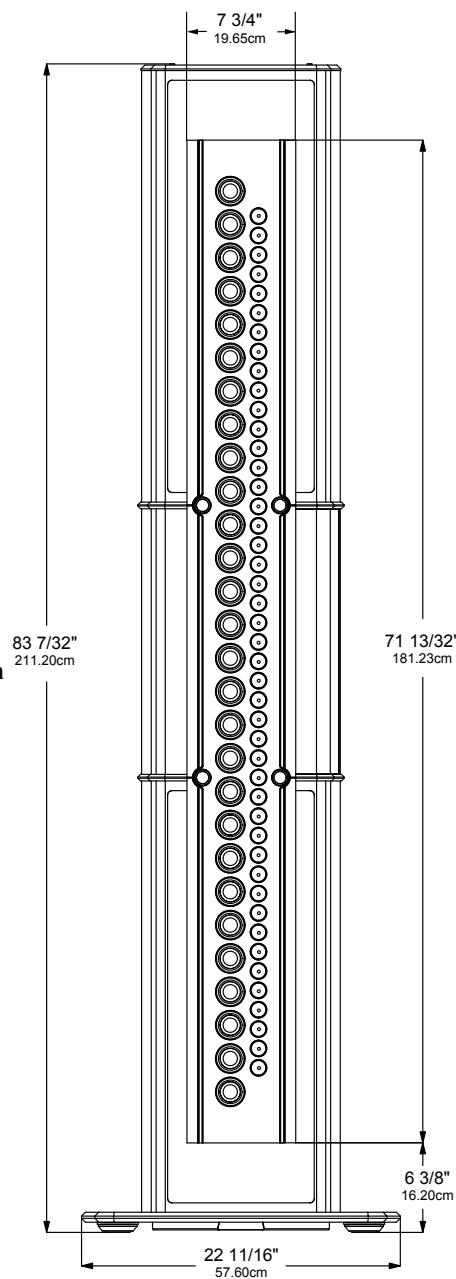
Figure 7



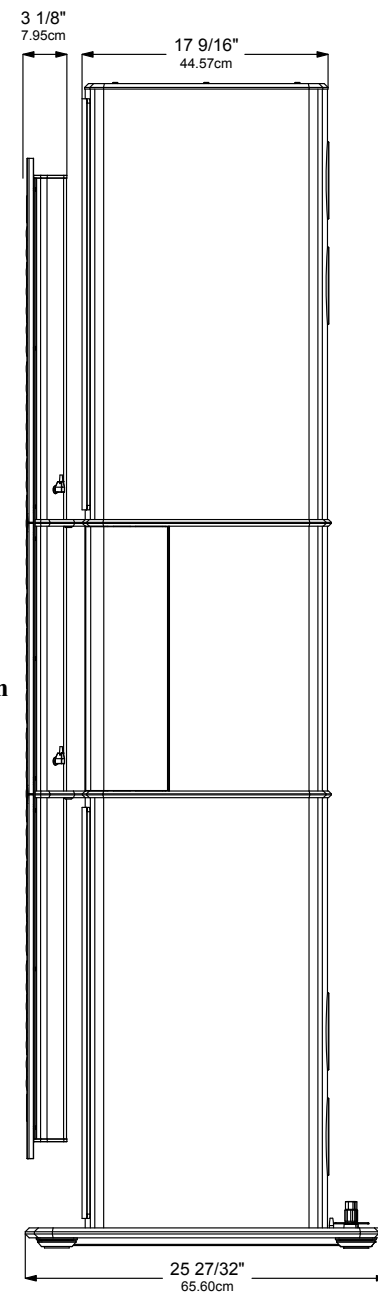
## Dimensions

The following dimensions can assist in determining the best location for your XRT2.1K.

**Front View of  
the XRT2.1K  
Loudspeaker System**

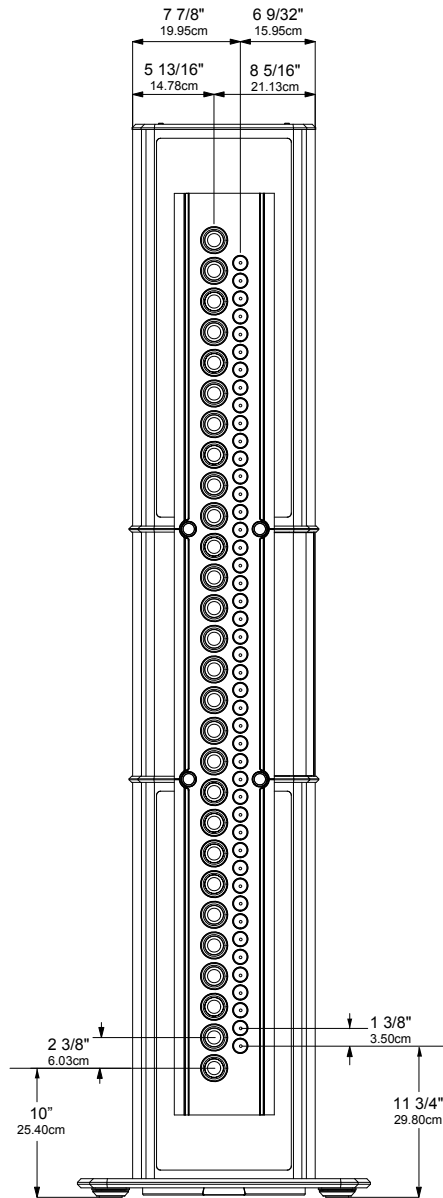


**Side View of  
the XRT2.1K  
Loudspeaker System**

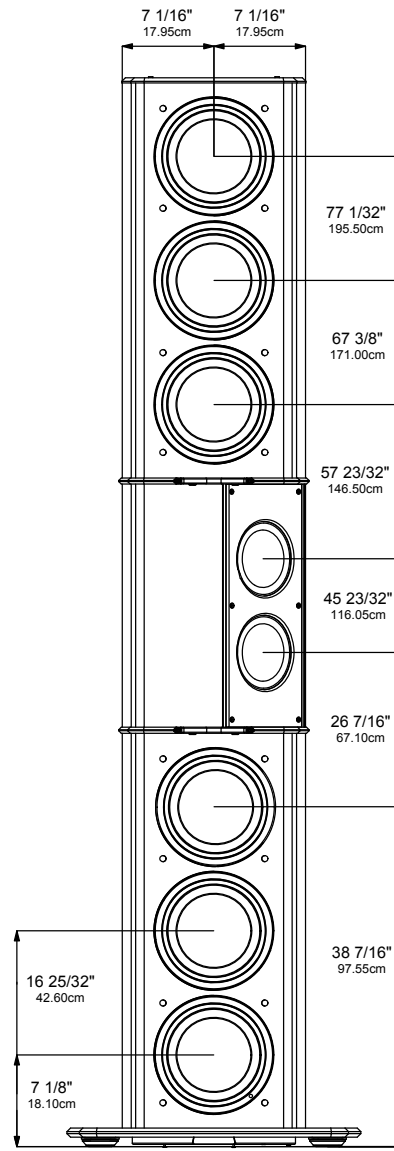




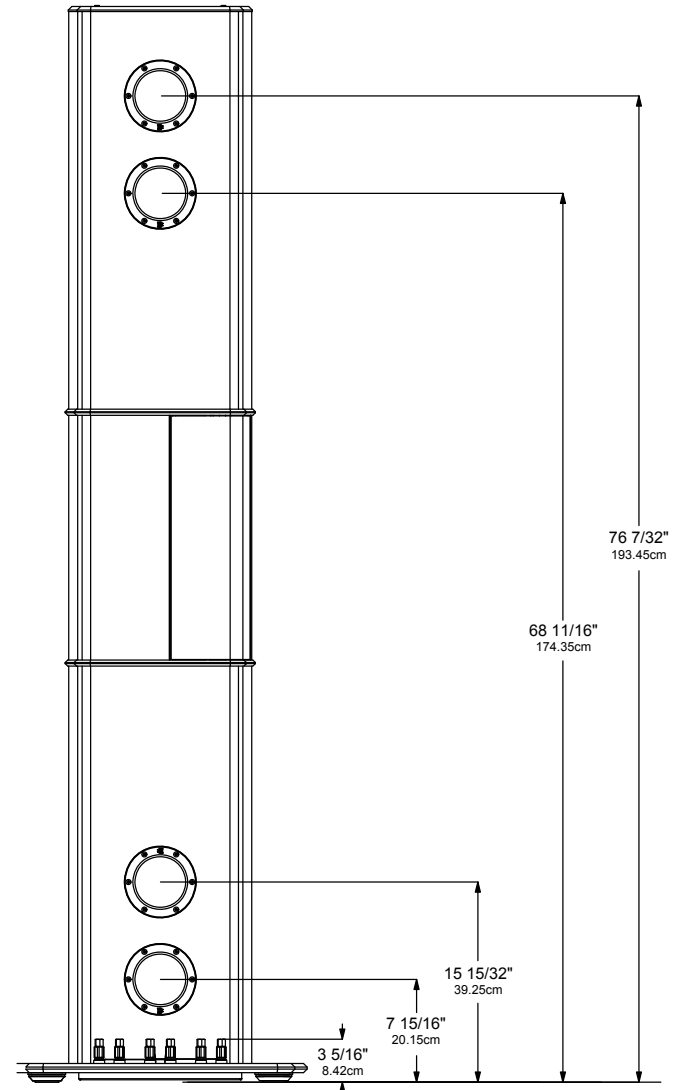
**XRT2.1K  
Tweeter and  
Upper Midrange  
Driver Location**



**XRT2.1K  
Lower Midrange  
and Woofer  
Driver Location**



**XRT2.1K  
Rear Panel  
Low Frequency  
Port Opening Location**



## Assembling the Loudspeakers

### Assembly of the Low Frequency and Lower Frequency Midrange Column to the Upper Low Frequency Column. Refer to figure 11.

1. Locate the supplied hardware fasteners and tools from the Accessory Box previously un-boxed.
2. Carefully align the bottom of the Upper Section Low Frequency Column with the Low Frequency Midrange and Low Frequency Lower Section Column. Make sure that the end of the Connection Cable Plug with its cable will continue to fit through the Cable Opening on the Top Metal Plate. Refer to figure 12.

3. Plug the Connection Cable Plug from the Lower Section Column into the Connection Cable Socket located on the bottom Upper Section Column. Then rotate the Connection Cable Plug End 45 Degrees Clockwise to lock it into place.

*Note: In the future, if it should become necessary to disconnect the cable, press the metal tab lever on the connector, rotate the connection cable connector 45 Degrees Counterclockwise and then pull the cable connector downwards.*

4. Carefully align the bottom of the Upper Section Low Frequency Column with the Low Frequency Midrange and Low Frequency Lower Section Column. Make sure the openings on the Metal Plate for the Hex Head Bolts line up with the Bolt Openings on the Bottom of the Upper Section Low Frequency Column. Refer to figure 13.
5. Using the supplied Allen Wrench, fasten the Hex Head Bolts with the Lock Washers to secure the Upper Section and Lower Section Columns together.

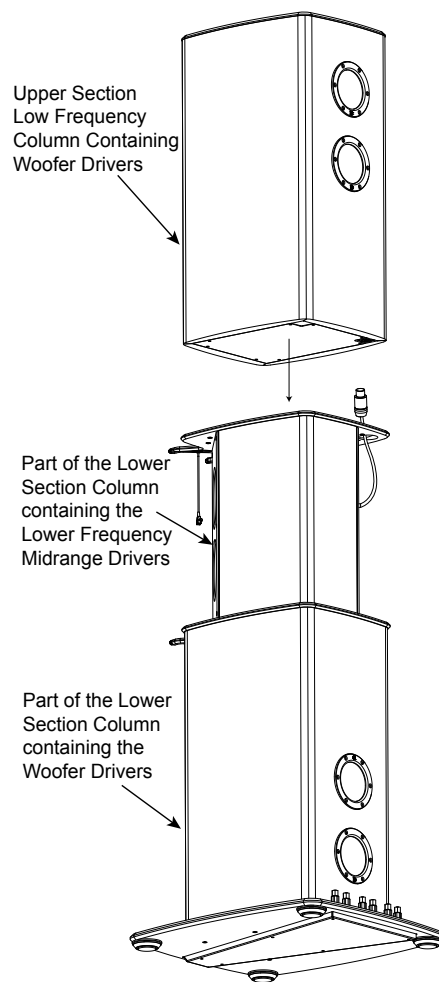


Figure 11

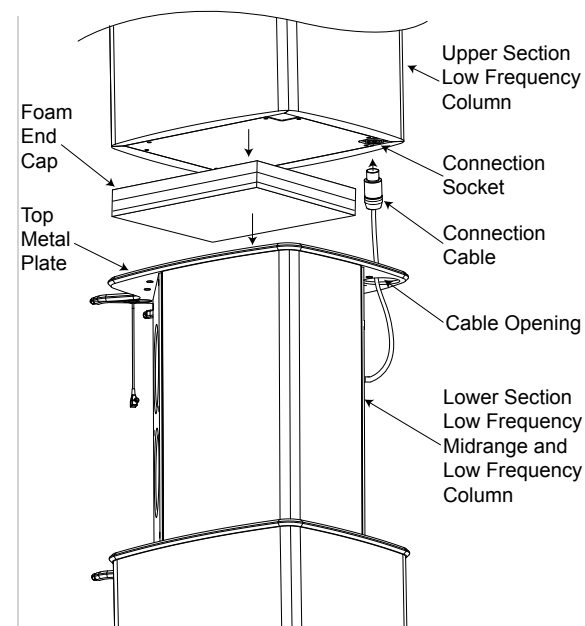


Figure 12

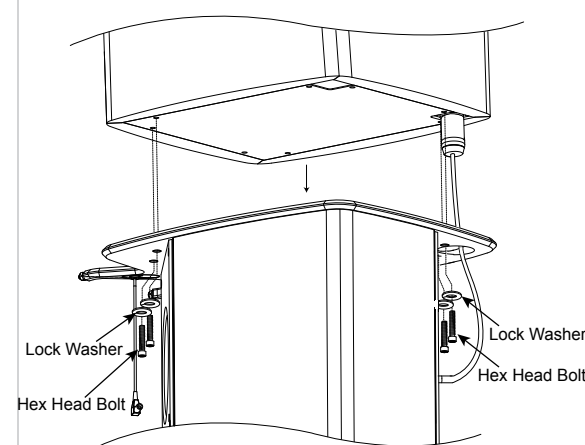


Figure 13

## Assembly of the Midrange Driver and Tweeter Column to the Low Frequency Midrange and Woofer Column

1. Locate the supplied hardware fasteners and tools from the Accessory Box previously un-boxed.
2. Orient the Midrange and Tweeter Column vertically with the rear panel of the column facing the Front Side of the Midrange and Woofer Column. There is an Identification Label located on the rear of each Column. Refer to figure 14.
3. Position the Column so the Metal Plate with the Bolt Ends line up with the four openings in the Rear Panel of the Midrange and Tweeter Column. Refer to figure 15.
4. Carefully insert the Bolt Ends into the Rear Panel of the Midrange and Tweeter Column. Refer to figure 16.
5. Place the four Lock Nuts onto the Bolts and using the supplied tool, tighten up the Lock Nuts.
6. Place the four Magnetic Covers onto the Front of the Midrange and Tweeter Column to cover up the Bolt Ends and Lock Nuts.
7. Proceed to page 8 for making the electrical connections between the Midrange Driver and Tweeter Column to the Low Frequency Midrange and Woofer Column.



Figure 14

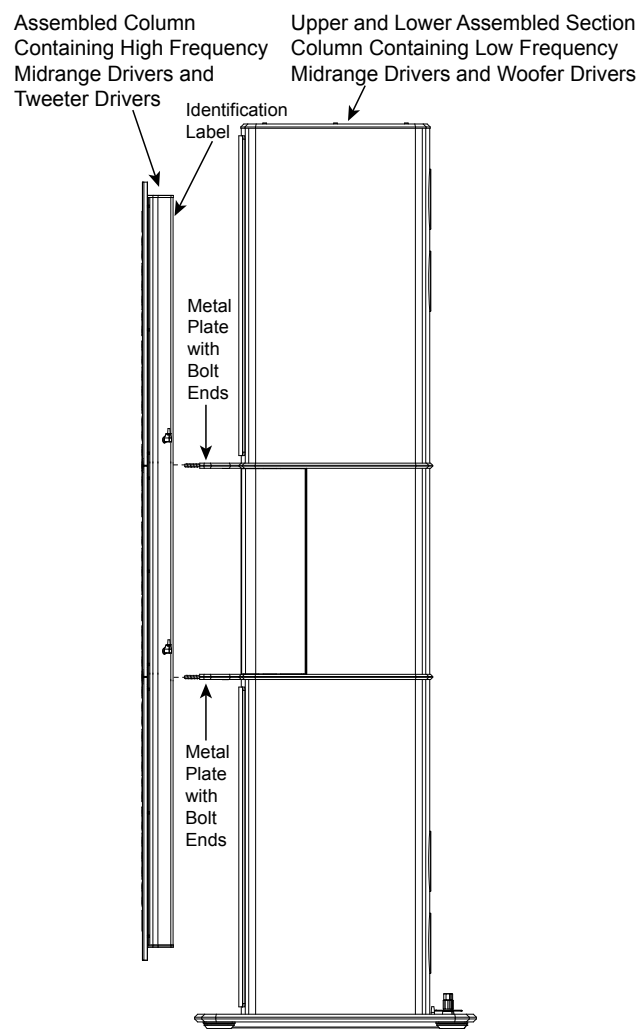


Figure 15

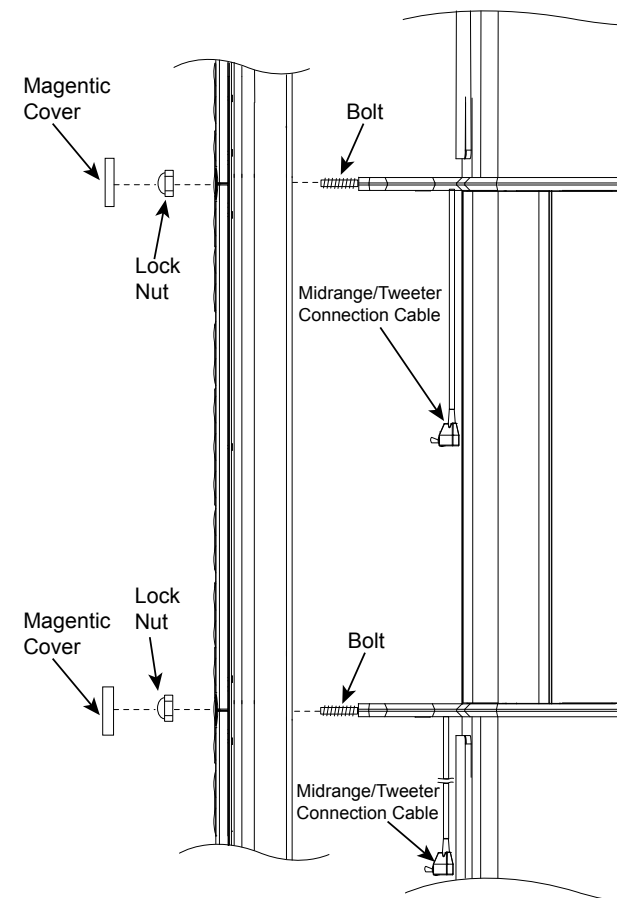


Figure 16

8. There are four Midrange/Tweeter Connection Cables that need to be connected.
9. Two of the four cables are placed through openings on each of the two Metal Plates used to support the Midrange/Tweeter Column. Refer to figure 17.
10. There are four Midrange/Tweeter Connection Cable Sockets located on either side on the rear panel of the Midrange/Tweeter Column just below the Metal Plates.
11. Referring to the drawing in the upper part of figure 17, connect the cable to the socket. Then connect the other three remaining cables to the three other sockets.
12. After the other XRT2.1K Loudspeaker has been assembled and the cable connections have been made, it is now time to attach the Loudspeaker Grills that were previously removed after the Loudspeakers were un-boxed.

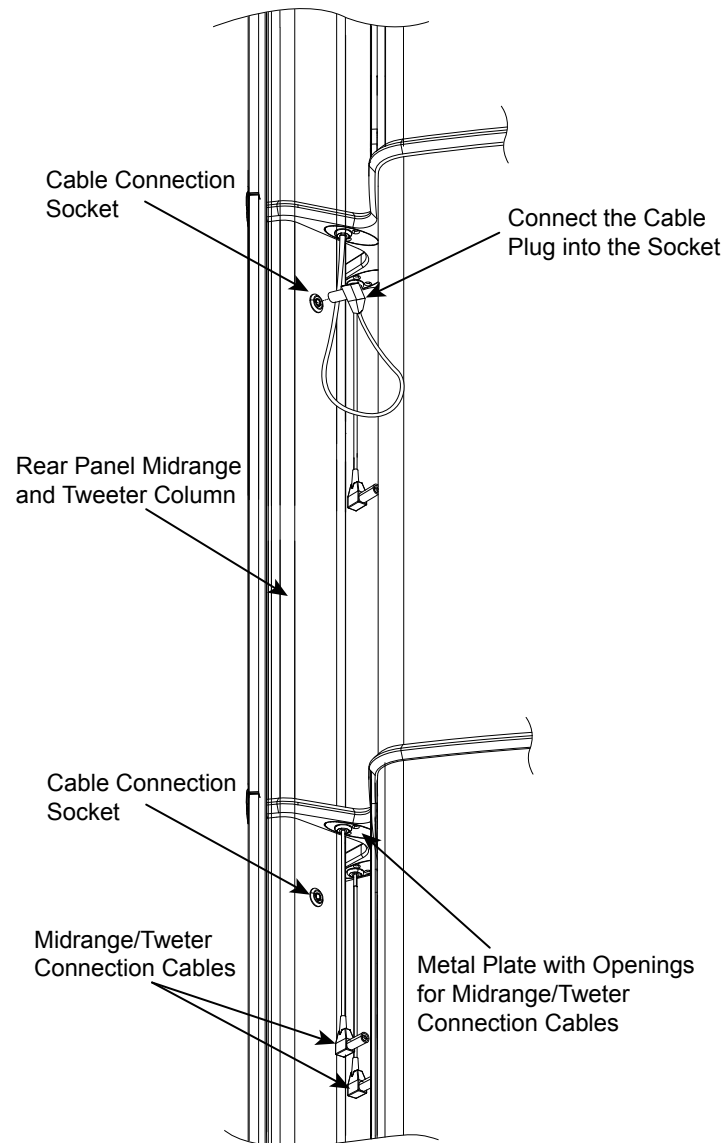


Figure 17

## Installation

### Loudspeaker Performance

The Sound Waves from the XRT2.1K Column Loudspeaker produces a very high performance Cylindrical Wave Front. This produces a stable symmetrical horizontal sound dispersion image, while minimizing undesirable floor and ceiling reflections that detract from a stable sound image. Referring to the illustration in figure 18, the Loudspeaker on the left side produces a Cylindrical Wave Front while the Loudspeaker on the right side produces a conventional Spherical Wave Front.

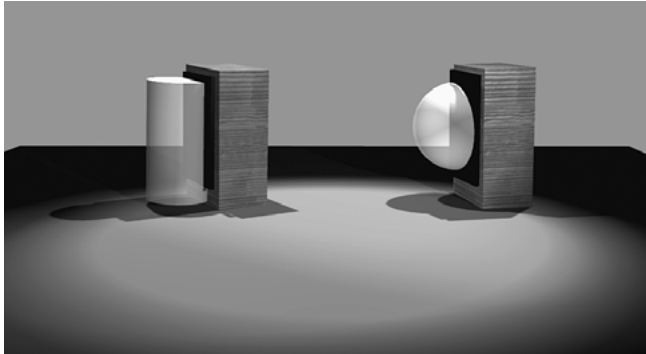


Figure 18

### Loudspeaker Placement

Loudspeaker placement in a room can greatly affect performance. The XRT2.1K Loudspeaker is designed for both Music and Home Theater Systems. The optimal method for selecting speaker locations includes the use of a real time spectrum analyzer operated by an experienced system installer. An uncompromising installation would take into consideration the floor, wall and ceiling coverings, the type and placement of furniture and can even include the architectural design of the room and its construction materials. In those instances where placement in the room is fixed, an environmental equalizer may be needed to restore proper musical balance.

Placement near a wall, corner, floor, ceiling or any intersecting surfaces will reinforce or diminish some bass frequencies. The bass frequencies that are altered by placement in a particular location are dependent on the dimensions of the room. If professional measurement equipment is not available, listen to the Loudspeaker. Try various locations by listening to music containing continuous bass and finding a location where there is an overall musical balance in the sound and the bass content does not dominate.

The XRT2.1K's Smooth Frequency Response may be altered by a large object(s) located in the sound waves path or by locating the Loudspeaker too close to a side wall. There should be an unobstructed area in front of the Loudspeaker of at least 30 degrees either side from the center axis for the best performance. Refer to figure 19.

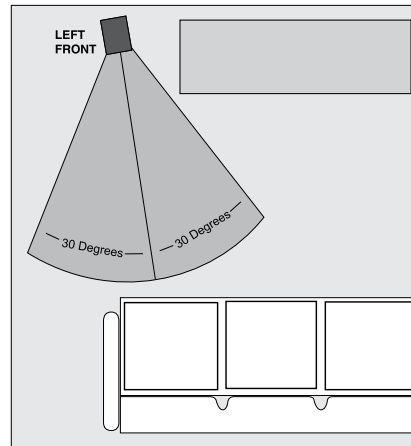


Figure 19

### Locating Loudspeakers for use in Home Theater

In a Home Theater application, the placement of Left and Right Front Loudspeakers can be limited by such considerations as the size and location of the video

monitor. The locating suggestions in the “for use in a Music System” section can still be helpful as a starting place. Refer to figure 20.

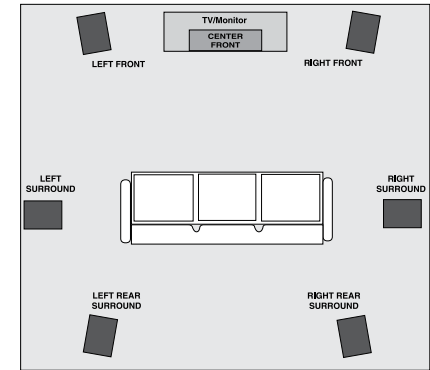


Figure 20

### Locating Loudspeakers for use in a Music System

When used in a Music System, the distance between the Loudspeakers and the listener to the Loudspeakers should form an equilateral or an acute isosceles triangle. If the speakers are too far apart relative to the listener, some imaging can be lost. Refer to figure 21.

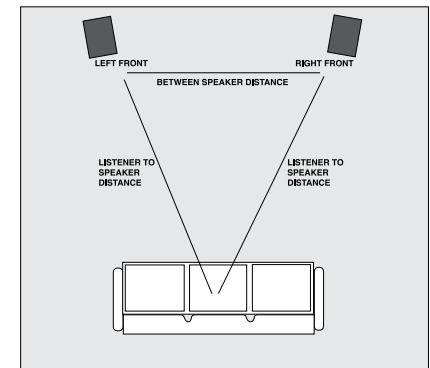


Figure 21



## How to Connect with One Power Amplifier

**Caution:** Do not connect the AC Power Cord to the Power Amplifier Rear Panel until after the Loudspeaker Connections are made. Failure to observe this could result in Electric Shock.

The connection instructions below, together with the XRT2.1K Connection Diagram located on the separate folded sheet “Mc2A”, is an example of a typical audio system. Your system may vary from this, however the actual components would be connected in a similar manner.

### Power Control Connection:

1. For Remote Power Control, connect a power control cable from the Audio Preamplifier or A/V Control Center Power Control Output 1 (TRIG 1) to the Amplifier POWER CONTROL IN.
2. Connect a power control cable from the Power Amplifier POWER CONTROL OUT to the XRT2.1K POWER CONTROL IN. Refer to figure 22.
3. Connect a power control cable from the XRT2.1K POWER CONTROL OUT to the next XRT2.1K POWER CONTROL IN.

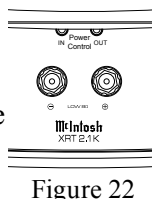


Figure 22

### Audio XLR Cable Connection:

1. Connect an XLR cable from the Balanced Output 1 Left Channel, (refer to note 2 below) of an Audio Preamplifier or A/V Processor, to the Amplifier BALANCED INPUT. Place the INPUT MODE Switch in the BALANCED Position.

*Note: 1. An optional hookup is to use an unbalanced cable and place the INPUT MODE Switch in the UNBALANCED Position.*

2. When multiple Power Amplifiers are used, match up the Preamplifier or A/V Processor Channel Output designation to each Power Amplifier with the Loudspeaker and the Loudspeaker location in the room.

### Loudspeaker Input Terminals:

When connecting the Loudspeaker Hookup Cables to the XRT2.1K Loudspeaker Input Terminals please follow the steps below:

1. Rotate the end of the Input Terminal Post counterclockwise until an opening appears. Refer to figures A and B.
2. Insert the Loudspeaker hookup cable into the Input Terminal Post opening or the cable spade lug around the center post of the Input Terminal. Refer to figure C.
3. Rotate the end of the Input Terminal Post clockwise until it is finger tight. Refer to figure D.
4. Place the supplied McIntosh Wrench over the end of the Input Terminal and rotate it one quarter of a turn (90°) to secure the Loudspeaker Cable Connection. **Do not over tighten.** Refer to figure E.

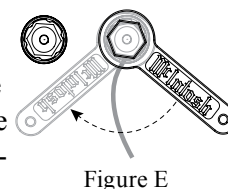
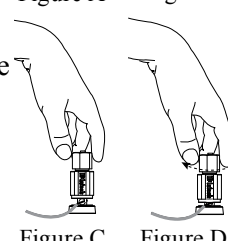
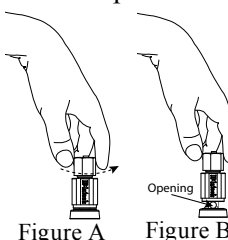


Figure E

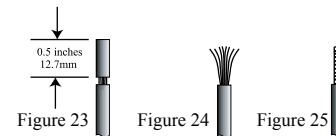
### Preparing the Loudspeaker Hookup Cables:

When connecting a XRT2.1K Loudspeaker to an amplifier, it is very important to use cables of adequate size, so there is little to no power loss in the cables. The size is specified in Gauge Numbers or AWG (American Wire Gauge). The smaller the Gauge number, the larger the wire size:

Loudspeaker Cable Distance vs Wire Gauge Guide			
Loudspeaker Impedance	25 feet (7.62 meters) or less	50 feet (15.24 meters) or less	100 feet (30.48 meters) or less
8 Ohms	16AWG	14AWG	12AWG

### Bare wire cable ends:

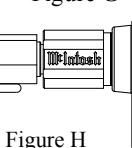
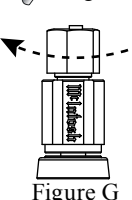
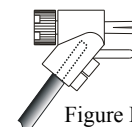
Carefully remove sufficient insulation from the cable ends, refer to figures 23, 24 & 25. If the cable is stranded, carefully twist the strands together as tightly as possible.



- Notes:*
1. If desired, the twisted ends can be tinned with solder to keep the strands together.
  2. The prepared bare wire cable ends may be inserted into spade lug connectors.
  3. Banana plugs are for use in the United States and Canada only.

### Banana Plugs for cable ends:

1. Attach the previously prepared bare wire cable ends into the banana plugs and secure the connections. Refer to figure F.
2. Rotate the top of the Output Terminal Post clockwise until it is finger tight. Refer to figure G. Then using the McIntosh Wrench, rotate the top of the Output Terminal one quarter of a turn (90°). **Do not over tighten.** Refer to figure E.
3. Referring to figure H and the illustration on the next page, connect the Loudspeaker hookup cables with banana plugs into the hole at the end of the Input Terminal.

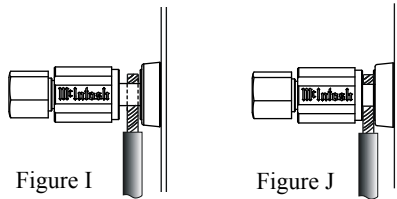


*Note: It is important to maintain the correct polarity at both ends of the Loudspeaker cables.*

### Spade Lug or Wire Connections:

1. Insert the spade lug connector or prepared section of the cable end into the Input Terminal side access

hole, and tighten the Input Terminal cap until the cable is firmly clamped into the terminals so the lugs or wire cannot slip out. Refer to figures I and J.



*Note: It is important to maintain the correct polarity at both ends of the Loudspeaker cables.*

Connections To One Power Amplifier

The XRT2.1K Loudspeaker is a Four Way Crossover-System that has three pairs of Input Terminals (Positive and Negative) for connection to a Power Amplifier.

XRT2.1K Loudspeaker Four Way System		
Frequency Range	Loudspeaker Drivers	Input Terminal Connections
12Hz - 150Hz	8 inch Woofers	SUBWOOFER
150Hz - 450Hz	6.5 inch Midrange	LOW
450Hz -2,100Hz	2.0 inch Midranges	MD/HIGH
2,100Hz - 45,000Hz	3/4 inch Tweeters	MD/HIGH

Referring to the Connection Diagram located on the separate folded sheet “Mc2A”, there is one Power Amplifier with three pairs of identical Output Terminals.

*Note: If the single power amplifier used only has one pair of Output Terminals, then use the four Jumper Cables supplied with XRT2.1K for connection between its three pairs of Input Terminals.*

1. Connect a cable from the Power Amplifier “A” Output Terminal Positive (+) 8 Ω Terminal to the XRT2.1K Positive (+) 8 Ω “MID/HIGH” Terminal. Then connect a cable from the Power Amplifier “A” Output Terminal Negative (-) 8 Ω Terminal to the XRT2.1K Negative (-) “MID/HIGH” Terminal.
2. In a similar manner, connect a cable from the Power Amplifier “B” Output Terminal Positive (+) 8 Ω Terminal to the XRT2.1K Positive (+) 8 Ω “LOW” Terminal. Then connect a cable from the Power Amplifier “B” Output Terminal Negative (-) 8 Ω Terminal to the XRT2.1K Negative (-) “LOW” Terminal.
3. Also connect a cable from the Power Amplifier “C” Output Terminal Positive (+) 8 Ω Terminal to the XRT2.1K Positive (+) 8 Ω “SUBWOOFER” Terminal. Then connect a cable from the Power Amplifier “C” Output Terminal Negative (-) 8 Ω Terminal to the XRT2.1K Negative (-) “SUBWOOFER” Terminal.



## How to Connect with Two Power Amplifiers and Room Correction Equalizer

**Caution:** Do not connect the AC Power Cord to the Power Amplifiers Rear Panel until after the Loudspeaker Connections are made. Failure to observe this could result in Electric Shock.

The connection instructions below, together with the XRT2.1K Connection Diagram located on the separate folded sheet “Mc2B”, is an example of a typical audio system. Your system may vary from this, however the actual components would be connected in a similar manner.

*Note: When multiple Power Amplifiers are used to drive the various sections of the XRT2.1K, it is important that each of the amplifiers utilized have the same amplifier gain values.*

### Power Control Connection:

1. For Remote Power Control, connect a power control cable from the Audio Preamplifier or A/V Control Center Power Control Output 1 (TRIG 1) to the Room Correction Equalizer POWER CONTROL IN.
2. Connect a power control cable from the Room Correction Equalizer POWER CONTROL OUT to Power Amplifier A POWER CONTROL IN.
3. Connect a power control cable from the Power Amplifier A POWER CONTROL OUT to Power Amplifier B POWER CONTROL IN.
4. Connect a power control cable from Power Amplifier B POWER CONTROL OUT the XRT2.1K POWER CONTROL IN. Refer to figure 22.
5. Connect a power control cable from the XRT2.1K POWER CONTROL OUT to the next XRT2.1K POWER CONTROL IN.

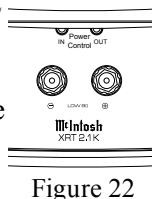


Figure 22

### Audio XLR Cable Connection:

1. Connect an XLR cable from the Balanced Output 1 Left Channel of an Audio Preamplifier or A/V Processor to the Room Correction Equalizer BALANCED INPUT.
2. Connect an XLR cable from the Room Correction Equalizer Balanced Output 2 Low Pass Crossover to Power Amplifier A, BALANCED INPUT. Place the INPUT MODE Switch in the BALANCED Position.
3. Connect an XLR cable from the Room Correction Equalizer Balanced Output 1 High Pass Crossover to Power Amplifier B, BALANCED INPUT. Place the INPUT MODE Switch in the BALANCED Position.

### Loudspeaker Input Terminals:

When connecting the Loudspeaker Hookup Cables to the XRT2.1K Loudspeaker Input Terminals please follow the steps below:

1. Rotate the end of the Input Terminal Post counterclockwise until an opening appears. Refer to figures A and B.
2. Insert the Loudspeaker hookup cable into the Input Terminal Post opening or the cable spade lug around the center post of the Input Terminal. Refer to figure C.
3. Rotate the end of the Input Terminal Post clockwise until it is finger tight. Refer to figure D.
4. Place the supplied McIntosh Wrench over the end of the Input Terminal and rotate it one quarter of a turn (90°) to secure

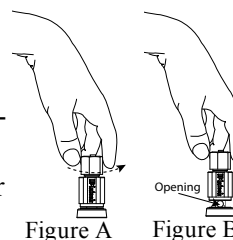


Figure A Figure B

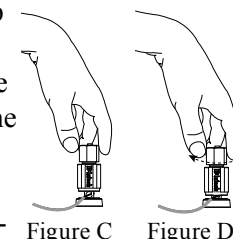


Figure C Figure D

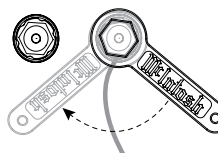


Figure E

the Loudspeaker Cable Connection. **Do not over tighten.**

Refer to figure E.

### Preparing the Loudspeaker Hookup Cables:

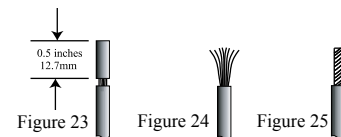
When connecting a XRT2.1K Loudspeaker to an amplifier, it is very important to use cables of adequate size, so there is little to no power loss in the cables. The size is specified in Gauge Numbers or AWG (American Wire Gauge). The smaller the Gauge number, the larger the wire size:

Loudspeaker Cable Distance vs Wire Gauge Guide			
Loudspeaker Impedance	25 feet (7.62 meters) or less	50 feet (15.24 meters) or less	100 feet (30.48 meters) or less
8 Ohms	16AWG	14AWG	12AWG

### Bare wire cable ends:

Carefully remove sufficient insulation from the cable ends, refer to figures 23, 24 & 25. If the cable is stranded,

carefully twist the strands together as tightly as possible.



- Notes:*
1. If desired, the twisted ends can be tinned with solder to keep the strands together.
  2. The prepared bare wire cable ends may be inserted into spade lug connectors.
  3. Banana plugs are for use in the United States and Canada only.

### Banana Plugs for cable ends:

1. Attach the previously prepared bare wire cable ends into the banana plugs and secure the connections. Refer to figure F.

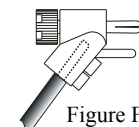
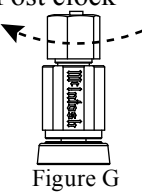
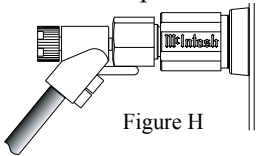


Figure F

2. Rotate the top of the Output Terminal Post clockwise until it is finger tight. Refer to figure G. Then using the McIntosh Wrench, rotate the top of the Output Terminal one quarter of a turn (90°). **Do not over tighten.** Refer to figure E.



3. Referring to figure H connect the Loudspeaker hookup cables with banana plugs into the hole at the end of the Input Terminal.



*Note: It is important to maintain the correct polarity at both ends of the Loudspeaker cables.*

**Spade Lug or Wire Connections:**

1. Insert the spade lug connector or prepared section of the cable end into the Input Terminal side access hole, and tighten the Input Terminal cap until the cable is firmly clamped into the terminals so the lugs or wire cannot slip out. Refer to figures I and J.

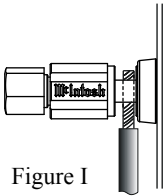


Figure I

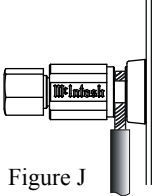


Figure J

*Note: It is important to maintain the correct polarity at both ends of the Loudspeaker cables.*

**Connections To Two Power Amplifiers**

The XRT2.1K Loudspeaker is a Four Way Crossover-System that has three pairs of Input Terminals (Positive and Negative) for connection to a Power Amplifier.

XRT2.1K Loudspeaker Four Way System		
Frequency Range	Loudspeaker Drivers	Input Terminal Connections
12Hz - 150Hz	8 inch Woofers	SUBWOOFER
150Hz - 450Hz	6.5 inch Midrange	LOW
450Hz -2,100Hz	2.0 inch Midranges	MD/HIGH
2,100Hz - 45,000Hz	3/4 inch Tweeters	MD/HIGH

Referring to the Connection Diagram located on the separate folded sheet “Mc2B”, there are two Power Amplifiers each with one pair of Output Terminals.

*Note: If Power Amplifier A has only one pair of 8 Ω Output Terminals, then use two Jumper Cables supplied with XRT2.1K for connection between the “Subwoofer” and “Low” Loudspeaker Input Terminals.*

1. Connect a cable from the Power Amplifier A Positive (+) 8 Ω Output Terminal to the XRT2.1K Positive (+) “SUBWOOFER” Terminal. Then connect a cable from the Power Amplifier A 8 Ω Negative (-) Output Terminal to the XRT2.1K Negative (-) “SUBWOOFER” Terminal.
2. Connect a cable from the Amplifier “B” Positive (+) 8 Ω Output Terminal to the XRT2.1K Positive (+) “MID/HIGH” Terminal. Then connect a cable from the Amplifier “B” 8 Ω Negative (-) Output Terminal to the XRT2.1K Negative (-) “MID/HIGH” Terminal.





## How to Connect with Three Power Amplifiers

**Caution:** Do not connect the AC Power Cord to the Power Amplifiers Rear Panel until after the Loudspeaker Connections are made. Failure to observe this could result in Electric Shock.

The connection instructions below, together with the XRT2.1K Connection Diagram located on the separate folded sheet “Mc2C”, is an example of a typical audio system. Your system may vary from this, however the actual components would be connected in a similar manner.

*Note: When multiple Power Amplifiers are used to drive the various sections of the XRT2.1K, it is important that each of the amplifiers utilized have the same amplifier gain values.*

### Power Control Connection:

1. For Remote Power Control, connect a power control cable from the Audio Preamplifier or A/V Control Center Power Control Output 1 (TRIG 1) to the Room Correction Equalizer POWER CONTROL IN.
2. Connect a power control cable from the Room Correction Equalizer POWER CONTROL OUT to Power Amplifier A POWER CONTROL IN.
3. Connect a power control cable from the Power Amplifier A POWER CONTROL OUT to Power Amplifier B POWER CONTROL IN.
4. Connect a power control cable from Power Amplifier B POWER CONTROL OUT to Power Amplifier C POWER CONTROL IN.
5. Connect a power control cable from Power Amplifier C POWER CONTROL OUT the XRT2.1K POWER CONTROL IN. Refer to figure 22.

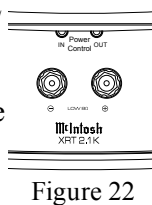


Figure 22

6. Connect a power control cable from the XRT2.1K POWER CONTROL OUT to the next XRT2.1K POWER CONTROL IN.

### Audio XLR Cable Connection:

1. Connect an XLR cable from the Balanced Output 1 Left Channel of an Audio Preamplifier to Power Amplifier A BALANCED IN. Place the INPUT MODE Switch in the BALANCED Position.
2. Connect an XLR cable from Power Amplifier A BALANCED OUT to Power Amplifier B, BALANCED IN. Place the INPUT MODE Switch in the BALANCED Position.
3. Connect an XLR cable from Power Amplifier B BALANCED OUT to Power Amplifier C, BALANCED IN. Place the INPUT MODE Switch in the BALANCED Position.

### Loudspeaker Input Terminals:

When connecting the Loudspeaker Hookup Cables to the XRT2.1K Loudspeaker Input Terminals please follow the steps below:

1. Rotate the end of the Input Terminal Post counter-clockwise until an opening appears. Refer to figures A and B.
2. Insert the Loudspeaker hookup cable into the Input Terminal Post opening or the cable spade lug around the center post of the Input Terminal. Refer to figure C.
3. Rotate the end of the Input Terminal Post clockwise until it is finger tight. Refer to figure D.
4. Place the supplied McIntosh Wrench over the end of the

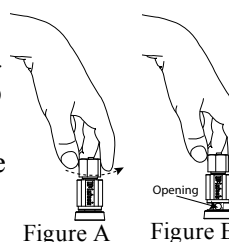


Figure A

Figure B

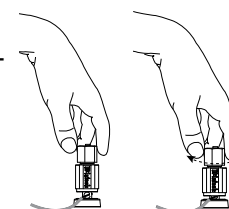


Figure C

Figure D

Input Terminal and rotate it one quarter of a turn (90°) to secure the Loudspeaker Cable Connection.

**Do not over tighten.**

Refer to figure E.

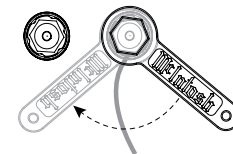


Figure E

### Preparing the Loudspeaker Hookup Cables:

When connecting a XRT2.1K Loudspeaker to an amplifier, it is very important to use cables of adequate size, so there is little to no power loss in the cables. The size is specified in Gauge Numbers or AWG (American Wire Gauge). The smaller the Gauge number, the larger the wire size:

Loudspeaker Cable Distance vs Wire Gauge Guide			
Loudspeaker Impedance	25 feet (7.62 meters) or less	50 feet (15.24 meters) or less	100 feet (30.48 meters) or less
8 Ohms	16AWG	14AWG	12AWG

### Bare wire cable ends:

Carefully remove sufficient insulation from the cable ends, refer to figures

23, 24 & 25. If the cable is stranded, carefully twist the strands together as tightly as possible.

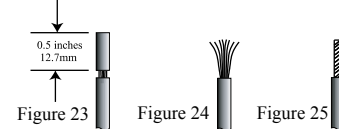


Figure 23

Figure 24

Figure 25

- Notes:*
1. If desired, the twisted ends can be tinned with solder to keep the strands together.
  2. The prepared bare wire cable ends may be inserted into spade lug connectors.
  3. Banana plugs are for use in the United States and Canada only.

### Banana Plugs for cable ends:

1. Attach the previously prepared bare wire cable ends into the banana plugs and secure the connec-



## Connections To Three Power Amplifiers

The XRT2.1K Loudspeaker is a Four Way Crossover-System that has three pairs of Input Terminals (Positive and Negative) for connection to a Power Amplifier.

XRT2.1K Loudspeaker Four Way System		
Frequency Range	Loudspeaker Drivers	Input Terminal Connections
12Hz - 150Hz	8 inch Woofers	SUBWOOFER
150Hz - 450Hz	6.5 inch Midrange	LOW
450Hz - 2,100Hz	2.0 inch Midranges	MD/HIGH
2,100Hz - 45,000Hz	3/4 inch Tweeters	MD/HIGH

Referring to the Connection Diagram located on the separate folded sheet “Mc2C”, there are three Power Amplifiers each with one pair of Output Terminals.

1. Connect a cable from the Power Amplifier A Positive (+) 8  $\Omega$  Output Terminal to the XRT2.1K Positive (+) “SUBWOOFER” Terminal. Then connect a cable from the Power Amplifier A 8  $\Omega$  Negative (-) Output Terminal to the XRT2.1K Negative (-) “SUBWOOFER” Terminal.
2. Connect a cable from the Power Amplifier B Positive (+) 8  $\Omega$  Output Terminal to the XRT2.1K Positive (+) “LOW” Terminal. Then connect a cable from the Power Amplifier B 8  $\Omega$  Negative (-) Output Terminal to the XRT2.1K Negative (-) “LOW” Terminal.
3. Connect a cable from the Power Amplifier C Positive (+) 8  $\Omega$  Output Terminal to the XRT2.1K Positive (+) “MID/HIGH” Terminal. Then connect a cable from the Power Amplifier C 8  $\Omega$  Negative (-) Output Terminal to the XRT2.1K Negative (-) “MID/HIGH” Terminal.

tions. Refer to figure F.

2. Rotate the top of the Output Terminal Post clockwise until it is finger tight. Refer to figure G. Then using the McIntosh Wrench, rotate the top of the Output Terminal one quarter of a turn (90°). **Do not over tighten.** Refer to figure E.

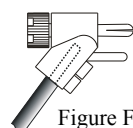


Figure F

3. Referring to figure H to connect the Loudspeaker hookup cables with banana plugs into the hole at the end of the Input Terminal.

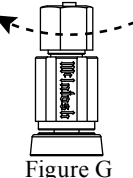


Figure G

*Note: It is important to maintain the correct polarity at both ends of the Loudspeaker cables.*

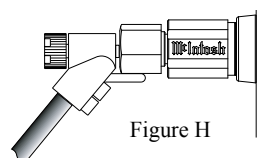


Figure H

## Spade Lug or Wire Connections:

1. Insert the spade lug connector or prepared section of the cable end into the Input Terminal side access hole, and tighten the Input Terminal cap until the cable is firmly clamped into the terminals so the lugs or wire cannot slip out. Refer to figures I and J.

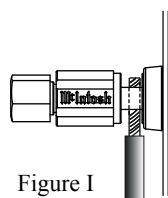


Figure I

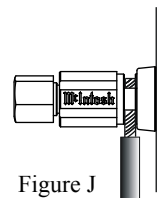


Figure J

*Note: It is important to maintain the correct polarity at both ends of the Loudspeaker cables.*



## Specifications

### System Driver Complement

Six 8 inch Woofers

Two 6.5 inch Low Frequency Midranges

Twenty-eight 2 inch Upper Frequency Midranges

Forty-five 3/4 inch Dome Tweeter

### Impedance

8 Ohms Nominal

### Frequency Response

12Hz - 45,000Hz

### Sensitivity

90 dB (2.83V/1m equivalent)

### Crossover Frequencies

150Hz

450Hz

2,100Hz

### Maximum Power Handling

2,100 Watts

### McIntosh Logo Power Requirement

5VDC to 12VDC at 1mA

## General Specifications

### Enclosure Finish

Brushed Aluminum and black Aluminum, High Gloss

Black Top, Front and Bottom Base

### Grille Finish

Black Knit Cloth with High Gloss Trim

### Overall Dimensions

Height is 83-7/32 inches (211.2cm)

Width is 22-11/16 inches (57.6cm)

Depth is 25-27/32 inches (65.6cm) including cables and connectors

### Weight

353.2 pounds (160.2 kg) net

467.8 pounds (212.2 kg) in shipping carton





## XRT2.1K Packing Instructions

In the event it is necessary to repack the XRT2.1K Loudspeaker for shipment, it must be packed exactly as shown. To protect the finish of the Loudspeaker and the Grille Covers it is advisable to use the cloth covers saved when it was unboxed. If the Loudspeaker Cloth Covers and Grille Covers are no longer available, then wrap the Loudspeaker and Grilles with a durable plastic film. Then place the wrapped Loudspeaker and Grille into the protective foam packing material, before inserting it into the shipping carton.

Use the original shipping carton and interior parts only if they are all in good serviceable condition. If a shipping carton or any of the interior parts are needed, please call or write the Customer Service Department of McIntosh Laboratory. Refer to page 2. Please see the Part List for the correct part numbers.

### Tweeter/Midrange Column Packing

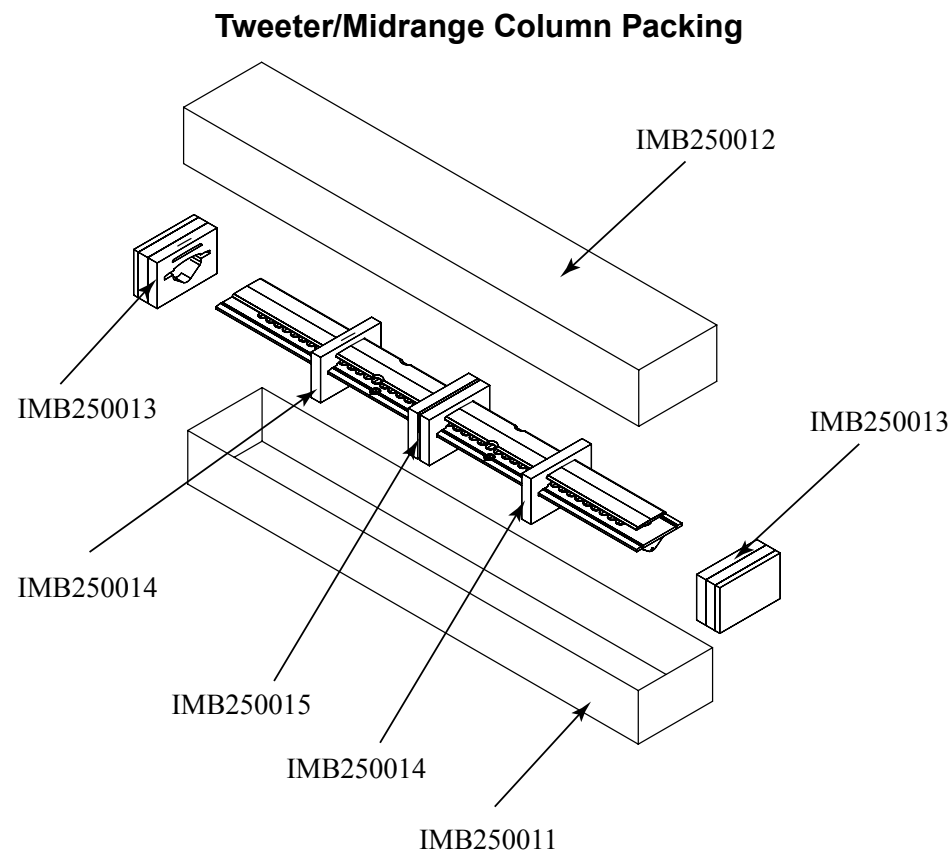
<u>Quantity</u>	<u>Drawing Number</u>	<u>Part Number</u>
1	IMB250011	310601SP
1	IMB250012	310602SP
2	IMB250013	310603SP
2	IMB250014	310604SP
1	IMB250015	310605SP

### Upper Bass Column Packing

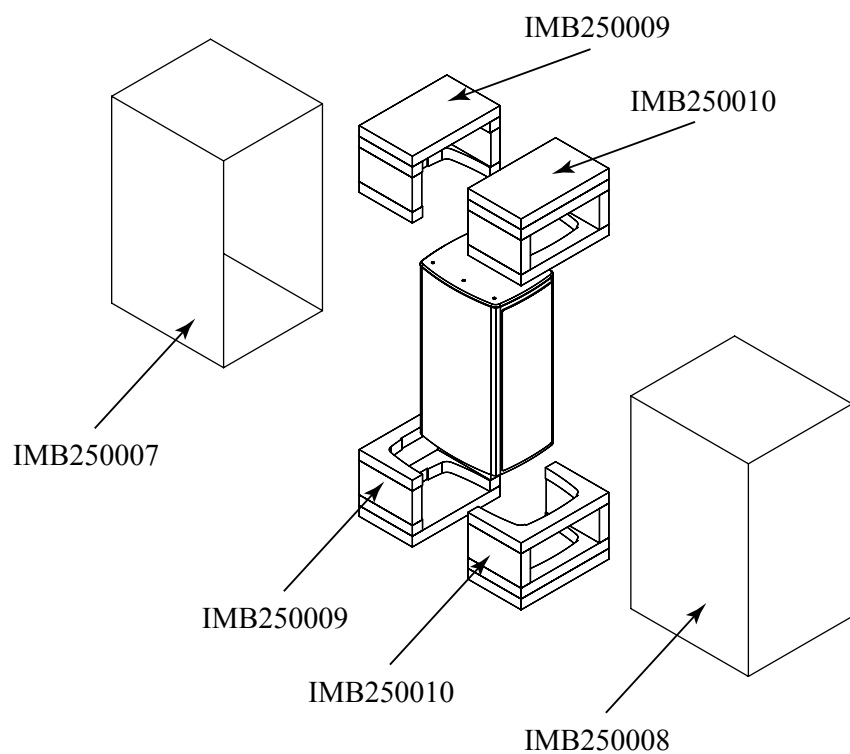
<u>Quantity</u>	<u>Drawing Number</u>	<u>Part Number</u>
1	IMB250007	310615SP
1	IMB250008	310616SP
2	IMB250009	310617SP
2	IMB250010	310618SP

### Lower Bass/Midrange Column Packing

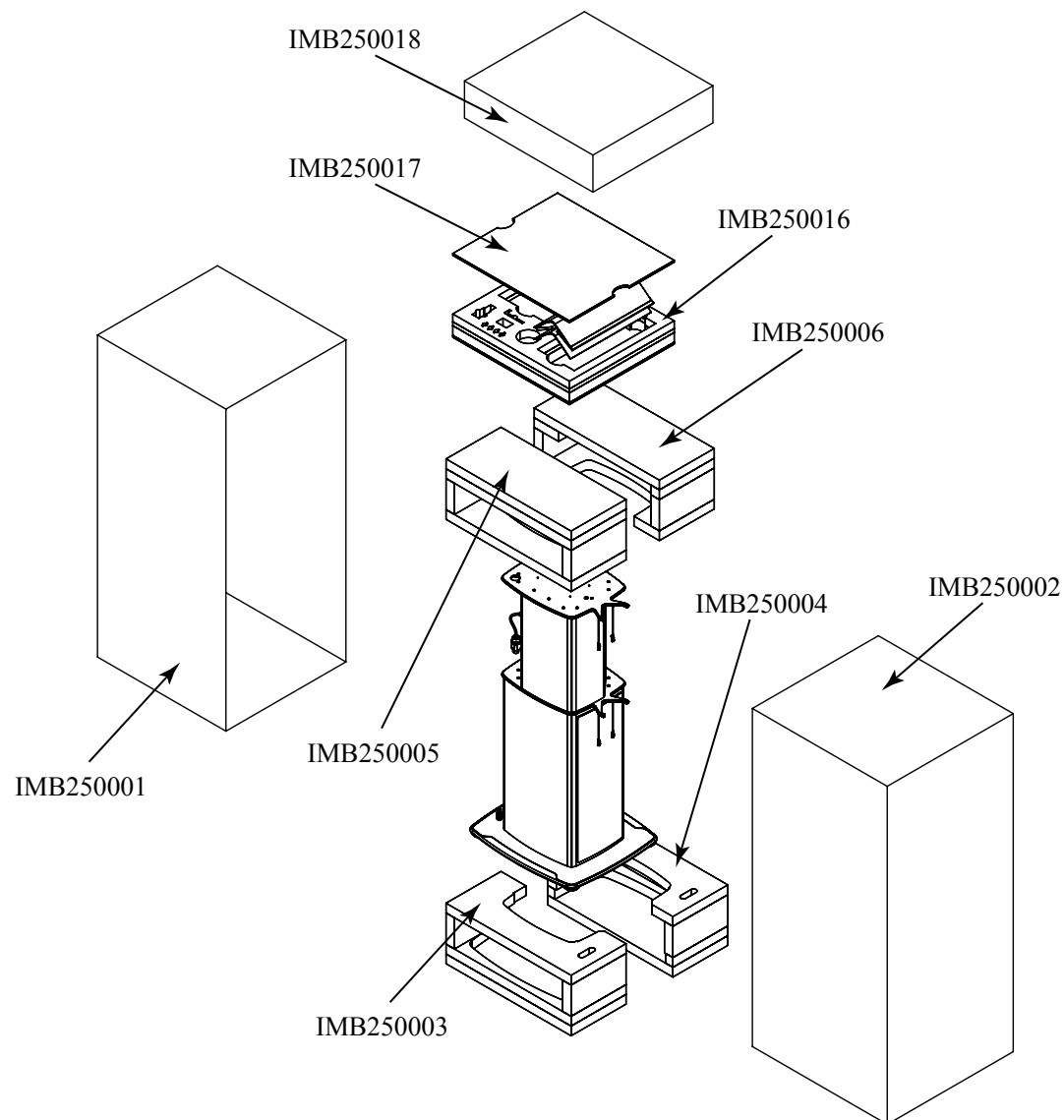
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1	IMB250002	310607SP
1	IMB250003	310608SP
1	IMB250004	310609SP
1	IMB250005	310610SP
1	IMB250006	310611SP
1	IMB250016	310612SP
1	IMB250017	310613SP
1	IMB250018	310614SP



### Upper Bass Column Packing



### Lower Bass/Midrange Column Packing







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