

# RM5

ADVANCED ACTIVE STUDIO MONITORS



## USER'S MANUAL



## IMPORTANT SAFETY INSTRUCTIONS – READ FIRST



This symbol, wherever it appears, alerts you to the presence of uninsulated Dangerous voltage inside the enclosure. Voltage that may be sufficient to constitute a risk of shock.



This symbol, wherever it appears, alerts you to important operating and maintenance instructions in the accompanying literature. Please read manual.

### **Read instructions:**

Retain these safety and operating instructions for future reference. Heed all warnings printed here and on the equipment. Follow the operating instructions printed in this user guide.

### **Do not open:**

There are no user serviceable parts inside. Refer any service work to qualified technical personnel only.

### **Power sources:**

Only connect the unit to mains power of the type marked on the rear panel.

### **Power cord:**

Use the power cord with sealed mains plug appropriate for your local mains supply as provided with the equipment. If the provided plug does not fit into your outlet consult your service agent. Route the power cord so that it is not likely to be walked on, stretched or pinched by items placed upon or against.

### **Ventilation:**

Do not position the unit where the air required for ventilation is impeded. If the unit is to be wall mounted with a 100mm vesa mounting system, ensure that it is constructed to allow adequate ventilation.

### **Moisture:**

To reduce the risk of fire or electrical shock do not expose the unit to rain, moisture or use in damp or wet conditions. Do not place a container of liquid on it, which may spill into any openings.

### **Heat:**

Do not locate the unit in a place close to excessive heat or direct sunlight, as this could be a fire hazard. Locate the unit away from any equipment, which produces heat such as: power supplies, power amplifiers and heaters.

### **Environment:**

Protect from excessive dirt, dust, heat, and vibration when operating and storing. Avoid tobacco ash, drink spillage and smoke, especially that associated with smoke machines.

### **Handling:**

*To prevent damage to the cosmetics avoid rough handling or placing the front or rear face on an abrasive surface. Protect the controls from damage during transit. Use adequate padding if you need to ship the unit. To avoid injury to yourself or damage to the equipment take care when lifting, moving or carrying the unit.*

### **Servicing:**

Switch off the equipment and unplug the power cord immediately if it is exposed to moisture, spilled liquid, or the power cord or plug becomes damaged, during a lightning storm or if smoke odor or noise is noted. Refer servicing to qualified technical personnel only.

### **Installation:**

Install the unit in accordance with the instructions printed in the user manual.

# RM5

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# INTRODUCTION

Thank you for purchasing Applied Research and Technology's RM5 Advanced Studio Monitor System. The RM5's unique cabinet design offers a superb level of sound quality; its design will accurately reproduce your music for years to come. The ART RM5 features new low noise, high performance pre amplification circuitry, designed for superior audio fidelity.

## Key Features Include

- Unique space saving aluminum unibody design
- Extended bass response is achieved by the unique dual opposing passive radiator design
- High resolution Ring Radiator with unique center plug waveguide ensures excellent off axis response for an extremely wide 'sweet spot'
- Three preset DSP modes for audio playback applications (Reference, Hi-Fi, Theatre)
- Quarter, Half and Full Space room compensation modes
- Left & Right XLR & 1/4-inch balanced TRS combi-jack inputs, stereo 1/8th-inch TRS input or Bluetooth™ wireless streaming
- Power Conserving Sleep mode
- Easily accessible top mounted controls
- Integrated 100mm Vesa mounting points

## RM5 Signal Flow

The signal path of the RM5 consists of an optimized low noise pre-amp, 24-bit 44.1 kHz DSP processing, and discrete Linear Amplifiers.

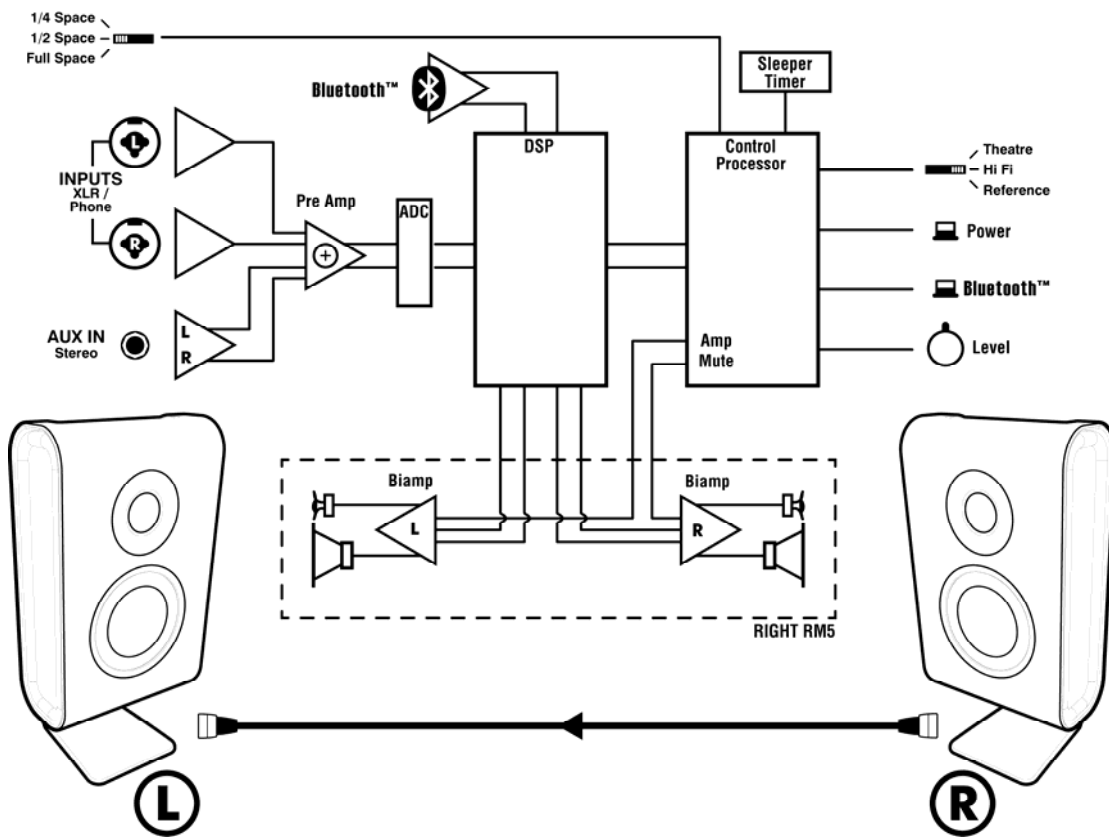


Figure 1 – Signal Flow Diagram

# OPERATING INSTRUCTIONS

## Mounting the Stands to the Speakers

There are two options for mounting the stands to the speaker cabinets;

### Option 1, mounting without spacers

For mounting the stand without the spacer, use 4 x short 10-32 screws for each stand. Using the stand without the spacer will result in a monitor angle of +3 degrees.

### Option 2, mounting with the spacers

Positioning the spacer on the **top** 2 mounting points will result in a monitor angle of 0 degrees.

If using the spacer bracket, the longer 10-32 screws must be used for mounting it.

**Note:** First place the boxes face down on a soft surface to prevent scratching the front face before you mount the stands on the speakers.

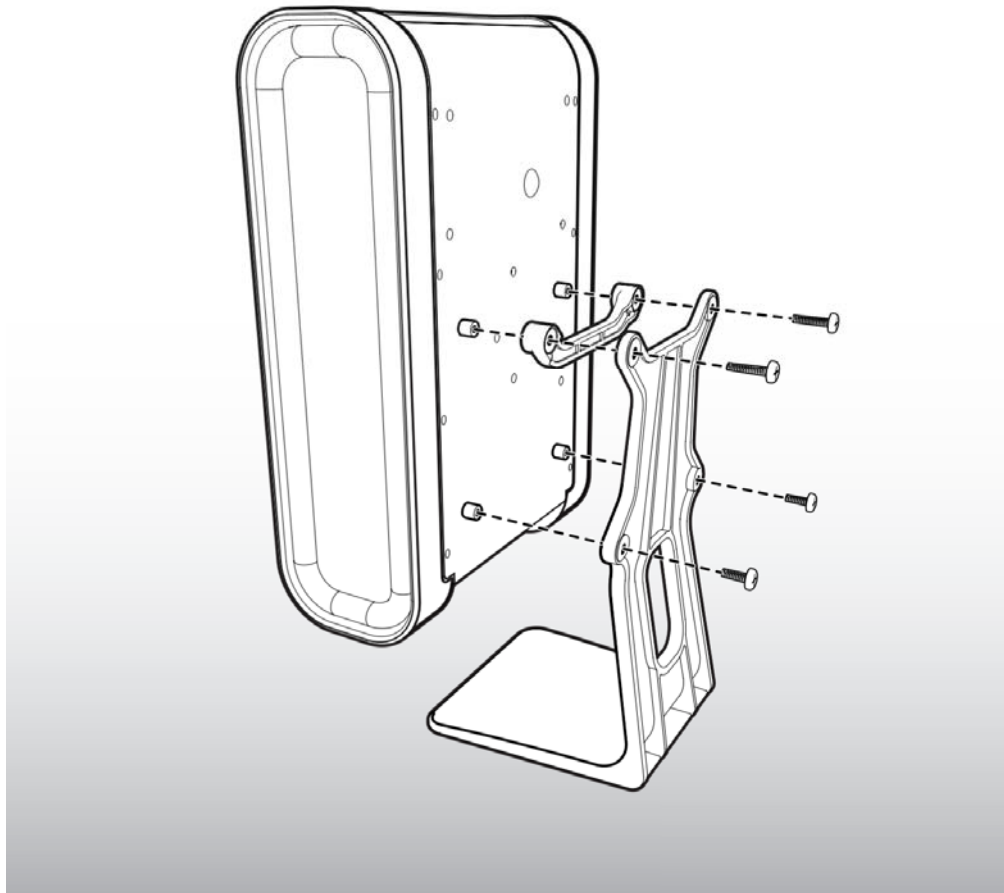


Figure 2 – Speaker stand

## **Cable Connections**

Connect the 4pin multi cable to the Right and Left speakers. Connect the power cable to the inlet located on the speaker labeled **R** – right.

Connect the Audio source to the Right speaker next, using the following input options; 2 x XLR and ¼-inch TRS Balanced Combo-Jacks (Left/Right), or the Stereo 1/8-inch TRS Jack. Last, the speakers can be used with any Bluetooth™ capable device for Wireless Streaming.

### **To Obtain The Best Performance With The RM5**

#### **Bluetooth Operation**

When connecting to the unit for the first time, press and hold the Bluetooth™ switch for 4 seconds. Once the Bluetooth™ LED starts to flash, a new device will be able to connect to the RM5.

When turning the unit on, the RM5 is in Bluetooth™ Linkback mode by default, which attempts to connect to previously connected devices.

If you would like to turn Bluetooth off, tap the Bluetooth™ switch once. To turn the Bluetooth™ back on, simply tap the Bluetooth switch again.

#### **Standby Operation**

When the power is applied to the speakers and power button is not engaged (up position) and displaying red, the Standby mode is engaged.

#### **Sleep Mode**

Then with power applied and the power button engaged (down position) and displaying green, the Standby mode is activated after 20 minutes with no signal from any of the inputs. When this occurs, the microprocessor establishes the following:

- The amplifier inputs are muted
- The DSP is put into a low power reset mode
- The main transformer is disconnected from the supply
- There is an audible Standby mode confirmation 'Click' from the speaker
- The power switch LED displays a slow green flash

While in Sleep mode, the microprocessor monitors all inputs and the Bluetooth module for a signal. If any signal is detected, the above steps are reversed and the unit becomes active.

## TOP PANEL CONTROLS

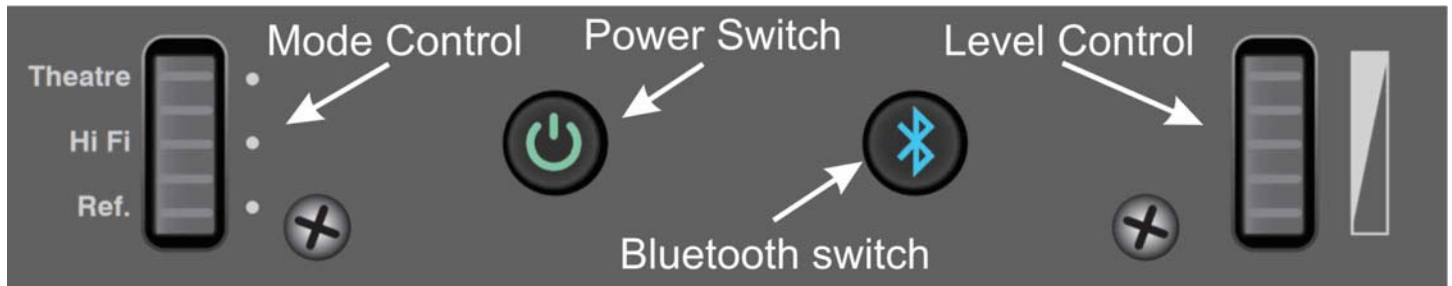


Figure 3 – Top Controls

### Level control

The level control adjusts the volume level of all inputs.

### Mode Control

Ref Mode - Measures flat across the frequency spectrum.

HiFi Mode - Boosted low end and enhanced highs make this mode ideal for general music listening.

Theatre Mode - Boosted low end and enhanced mids make this mode representative of the movie theatre experience.

### Bluetooth™ Switch

If connecting to the unit for the first time, press and hold the Bluetooth™ switch for 4 seconds. Once *the Bluetooth™ LED starts to flash*, a new device will be able to connect to the RM5. When turning the unit on, The RM5 is in Bluetooth™ Linkback mode by default, which attempts to connect to previously connected devices.

### Bluetooth™ Multiple Masters

*The RM5 features the ability to switch the 'MasterDevice' when you have connections to two media players.*

*Example: If the Master Device is playing music that is all you will hear even if the secondary device is playing. To execute the function to elevate the secondary to master, you pause the player that you want to be the master device, double press the Bluetooth button, then press play. On Apple based media devices, there is approximately a six second pause for before initiating the double press for the function to work successfully. On Android devices, just pause the player, double press and hit play without any delay.*

*To summarize it may be necessary to wait several seconds after pausing the playback before executing the switch command, depending on the Media source*

### Power Switch

To turn the unit on, press this switch in, the green LED will illuminate.

## BOTTOM PANEL CONNECTIONS AND CONTROLS

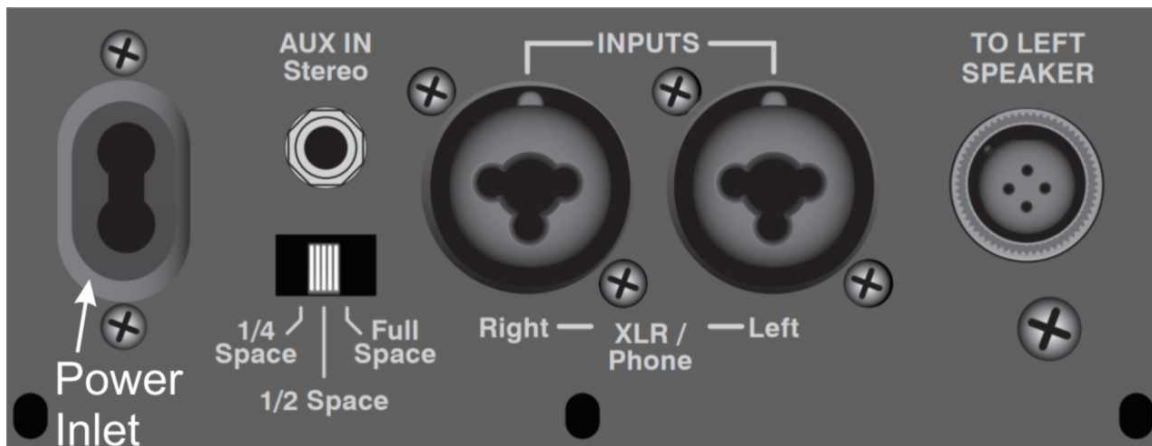


Figure 4 – Bottom Panel

### Power Inlet

Connect power cord to the power Inlet, to supply power to the speakers.

### Left/Right Input Jacks

The balanced Combo Jack Inputs allow line level sources such as passive mixer outputs, recording interface outputs or CD players to be connected.

### Stereo Aux In Jack

The stereo 1/8-inch Input allows digital media players (laptops, tablets and smart phones) to be connected.

### Space Switch

This feature compensates for possible low frequency reinforcement due to close proximity to walls. Place this switch in Full Space mode if the RM5's are not close to any walls. If the Monitors are placed close to a back wall, place this switch in the 1/2 Space mode. If the Monitors are placed close to both a back wall and a sidewall, place this switch in 1/4 Space mode.

### Left Speaker Output Jack

This is the jack used to connect to the Left speaker.



# WARRANTY INFORMATION

## Limited Warranty

Applied Research and Technology will provide warranty and service for this unit in accordance with the following warrants:

Applied Research and Technology (A R T) warrants to the original purchaser that this product and the components thereof will be free from defects in workmanship and materials for a period of **three** years from the date of purchase. Applied Research and Technology will, without charge, repair or replace, at its option, defective product or component parts upon prepaid delivery to the factory service department or authorized service center, accompanied by proof of purchase date in the form of a valid sales receipt.

## Online Registration

We recommend that you register your product online to insure prompt warranty repair servicing on any repair issues. Please go to [www.artproaudio.com](http://www.artproaudio.com). Select "Support", then "Product Registration". Then input your information here.

## Exclusions

This warranty does not apply in the event of misuse or abuse of the product or as a result of unauthorized alterations or repairs. This warranty is void if the serial number is altered, defaced, or removed.

A R T reserves the right to make changes in design or make additions to or improvements upon this product without any obligation to install the same on products previously manufactured.

A R T shall not be liable for any consequential damages, including without limitation damages resulting from loss of use. Some states do not allow limitations of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific rights and you may have other rights, which vary from state to state.

For units purchased outside the United States, an authorized distributor of Applied Research and Technology will provide service.

## SERVICE

The following information is provided in the unlikely event that your unit requires service.

Be sure that the unit is the cause of the problem. Check to make sure the unit has power, all cables are connected correctly, and the cables themselves are in working condition. You may want to consult with your dealer for assistance in troubleshooting or testing your particular configuration.

If you believe that the ART unit is at fault, go to **[www.artproaudio.com](http://www.artproaudio.com)**. Select "Support", then "Return Authorization Request" to request a return authorization number.

If you are returning the unit for service, pack the unit in its original carton or a reasonable substitute. The original packaging may not be suitable as a shipping carton, so consider putting the packaged unit in another box for shipping. Print the RA number clearly on the outside of the shipping box. Print your return shipping address on the outside of the box.

Include, with your unit, a note with the RA number and your contact information, including a return shipping address (we cannot ship to a P.O. box) and a daytime phone number, and a description of the problem, preferably attached to the top of the unit. Also include a copy of your purchase receipt.

Fill in the following information for your reference:

Date of purchase \_\_\_\_\_

Purchased from \_\_\_\_\_

Serial number \_\_\_\_\_

## SPECIFICATIONS

System Type	Active 2-Way Stereo
Program Power (Watts)	300 W
Max SPL (dB)	109
Frequency Response (Hz +/- 3dB)	45-22,000
Crossover Frequency (Hz)	2200
HF Driver(s)	High Resolution Ring Radiator Center Plug to Improve Off Axis Response
HF Program Power (Watts)	25W (x 2)
LF Driver(s)	5-inch High X-Max Composite woofer
LF Program Power (Watts)	125W (x 2)
LF Protection	Thermal / Peak (X-max)
Inputs	2 x XLR & ¼-inch TRS Balanced Combi-Jacks (Left/Right), Stereo 1/8-inch TRS Jack / Bluetooth™ Wireless Streaming
Mode Controls	Reference, HiFi, and Theatre Room Compensation 1/4 Space, 1/2 Space and Full Space
Level Controls	Master Level
Cabinet Material	Aluminum Unibody Design
Power Supply	USA – 105 to 125 VAC /60HZ Export units are configured for country of destination
Bass Principal	Dual Opposing Passive Radiator
Dimensions (H, W, D)	12.4-inch x 7.6-inch x 3.6-inch each speaker 31mm x 19mm x 9mm each speaker
Weight	20lbs / 9kg (Pair)

ART maintains a policy of constant product improvement. ART reserves the right to make changes in design, or make additions to, or improvements upon, this product without any obligation to install same on products previously manufactured. Therefore, specifications are subject to change without notice.



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