

RECTILINEAR RESEARCH CORP.
107 Bruckner Boulevard
New York, New York 10454

**INSTRUCTIONS FOR THE USE
OF THE RECTILINEAR III AND LOWBOY
FLOOR STANDING LOUDSPEAKER SYSTEMS**

I. BASIC CONFIGURATION AND DESIGN GOALS:

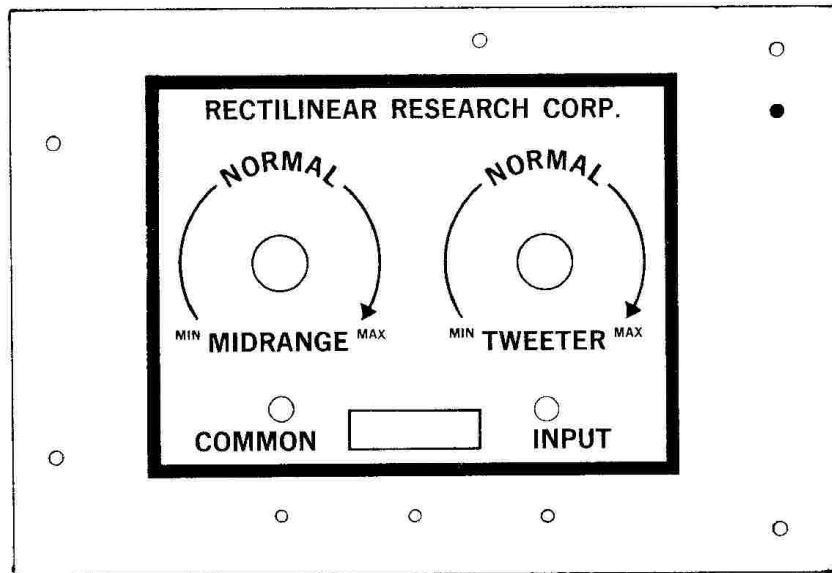
The Rectilinear III is a four-way speaker system utilizing a 12" woofer, a 5" midrange, two 2½" tweeters and two 2" tweeters, all of the moving coil principle but of somewhat unconventional design. The four high frequency drivers are widely separated from one another on the front panel, the two super-tweeters being in diametrically opposite corners. The floor-standing enclosure is of the tube-vented bass reflex type.

The Rectilinear III was designed as a reference standard for the audio professional or high-fidelity enthusiast who seeks completely objective reproduction of the input without the slightest alteration attributable to the loudspeaker. Any size within reason was considered permissible, and neither complexity nor cost was a design limitation except for a general desire to avoid unnecessarily expensive driving systems of the more exotic types. Special emphasis was placed on the widest possible dispersion of sound and on unimpaired performance in unusually large rooms.

II. CONNECTION FROM AMPLIFIER TO SPEAKERS:

The Rectilinear III is a medium efficiency system, designed for use with an 8 ohm source impedance. Wiring should be heavy gauge, (18 gauge minimum), insulated lamp cord wherever possible. Small gauge "speaker wire" is *absolutely not recommended* for use with this system as it will cause a loss of power output and increased distortion from your amplifier.

When connecting the Rectilinear III's to your amplifier, be sure they are wired *in-phase*. This means that the terminal marked "common," (BLACK TERMINAL), of each speaker system should be connected to the terminal marked either common, ground, or (-) of your amplifier. The terminal marked "input," (RED TERMINAL), of the speaker should be connected to the terminal of the amplifier marked "8 ohms" or (+). Connect the left speaker system to the left output terminals of the amplifier and the right speaker system to the right amplifier terminals, (SEE DIAGRAM). Wiring the loudspeakers in phase assures that no cancellation of sound will occur due to the left and right speakers' cones moving in opposite directions. A red and black "banana plug" is enclosed with each system for ease of installation. No soldering is required to connect wires to these plugs. To install, strip about ½" of insulation from the end of each wire. Loosen the screws visible on the side of the plug. Insert the stripped end of the wire into the back of the plug, then tighten the screw firmly to grip the wire. If you wish, you may connect directly to the speaker binding posts by turning the plastic screw counterclockwise to open, inserting the wire or wrapping it around the post, and re-tightening the screw down.



III. SPEAKER PLACEMENT:

The placement of a loudspeaker in a room very strongly influences the tonal balance of the reproduced sound. Room size, ceiling height, wall materials, carpeting, and drapes all affect the sound reproduction. You should experiment somewhat with the speaker placement before making a permanent installation. Generally speaking, if possible, the Rectilinear III's should be placed 8 to 12 feet apart along the same wall. However, closer or wider spacing may give better reproduction in some rooms. Some increase in bass response may be expected if the systems are placed in the corners of a large room.

IV. ADJUSTMENTS FOR LEVEL CONTROLS:

This Rectilinear III speaker system has both a midrange level control and a tweeter level control. Because the midrange level is very critical in relation to the woofer level, the midrange level control has been set to flat at the factory. The center setting of the control (straight-up) is flat when the system is positioned on the floor somewhat away from the corners of a room. If the low bass response seems too loud, use the bass control on your preamplifier to reduce it. In very "live" rooms it may be necessary to reduce the midrange setting somewhat for most natural balance.

The tweeter control on your Rectilinear III varies the tweeter level over a small range, to enable you to compensate for variations in high frequency room absorption characteristics. Set this control for the most *natural-sounding* reproduction. Speech should sound like *people* talking, not a loudspeaker speaking. Proper setting of the tweeter control will usually be found near center-setting although heavily draped rooms may require the control to be set higher. Many phono-cartridges and most popular records exhibit some high frequency peaks which should be compensated for, if necessary, with the treble control on your preamplifier. (SEE DIAGRAM).

V. REQUIRED AMPLIFIER POWER:

The Rectilinear III is a medium efficiency speaker system requiring substantial amplifier power for a high sound level. It is therefore strongly suggested that an amplifier of at least 20 watts "RMS" of power per channel be used with the Rectilinear III. The use of 50 to 100 watt "RMS" amplifiers for large rooms and high sound levels is not unreasonable.

VI. WARRANTY AND GUARANTEE:

Rectilinear Research Corporation warrants this speaker system to be free of defective material and faulty workmanship for a period of FIVE YEARS from date of purchase. Rectilinear Research Corp. at its own option, will repair this product at NO CHARGE FOR PARTS AND LABOR if, in our opinion, the complaint is caused by defective parts or faulty workmanship. If you should encounter any difficulty with this system, write to us stating the problem. List the make and model Numbers of all components being used within the system and the name of the Dealer from whom purchased. If, in our opinion the product must be returned to the factory, we will send you authorization for return. NO RETURNS WILL BE ACCEPTED WITHOUT OUR AUTHORIZATION. Freight must be prepaid and insured. After repairs unit will be returned to you freight prepaid and insured. Out of warranty repairs will be charged for parts and labor and shipped insured, freight charges collect. This Guarantee is void if the product has been tampered with, abused or opened without our written permission or if warranty card is not mailed in within 10 days of purchase. No person, Company or Corporation is authorized to issue any warranty(s) in lieu of this warranty and RECTILINEAR RESEARCH CORP. shall not accept any responsibility for any such warranty(s) written or implied.

VII. WHAT TO DO IN CASE OF CONCEALED DAMAGE:

Concealed damage is damage which does not become apparent until the carton has been opened. The contents of the carton may be damaged in transit due to rough or careless handling, even though the exterior appears undamaged.

This Rectilinear product was carefully inspected and packed, and left our factory in perfect condition. Any damage which occurred before it reached you must, in all probability, have been caused in transit. Responsibility for safe delivery was assumed by the carrier upon accepting the shipment. Any claims for damage must therefore be made by the receiver against the carrier.

VIII. IF THIS UNIT WAS DELIVERED IN A DAMAGED CONDITION BY A TRANSPORTATION COMPANY:

Notify that company immediately, make a written request for an inspection, and hold the merchandise and its carton for the inspector. After a joint inspection report is made, file a claim with the transportation company.

If there is damage to the cabinet, you can save time and prevent needless complication by having the cabinet repaired locally, keeping the receipted bill as a basis for claim. If this is not possible, or if there has been functional damage as well, you may request an "Authorized Return" label from us, advising us of the circumstances. Upon receipt of the label, you should return the system to us prepaid, after packing it carefully. If you need a new carton, we will be glad to send one on request. When we have made the repair, we will return the system to you collect, with an invoice for the repair charges. You may then use this invoice and the freight receipts as a basis for filing your claim.

IX. IF THIS UNIT WAS DEFECTIVE WHEN PICKED UP FROM YOUR LOCAL DEALER:

Notify the dealer immediately. He, in turn should notify the transportation company who delivered it to him, request an inspection, and file a claim. Hold the merchandise and its carton for inspection.

X. TECHNICAL ASSISTANCE:

If you require any additional help in setting up your sound system, please write to our engineering department stating as fully as possible what problems or symptoms you are experiencing. Address inquiries to:

Rectilinear Research Corp.

107 Bruckner Blvd.

New York, New York 10454

Attn: Application Engineering Dept.

Military and international inquiries to:

Royal Sound Co., Inc.

409 North Main Street

Freeport, New York 11520

In Canada:

H. Roy Gray Ltd.

14 Laidlaw Blvd.

Markham, Ontario, Canada