

KI-398-B-RGL LOUDSPEAKER

**INSTRUCTION MANUAL** 

## IMPORTANT SAFETY INSTRUCTIONS

- 1. READ these instructions.
- KEEP these instructions.
- 3. HEED all warnings.
- 4. FOLLOW all instructions.
- 5. DO NOT use this apparatus near water.
- 6. CLEAN ONLY with dry cloth or lightly damped cloth.
- 7. DO NOT block any ventilation openings. Install in accordance with the manufacturer's instructions
- 8. DO NOT install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9. ONLY USE attachments/accessories specified by the manufacturer.
- 10. USE only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 11. DO NOT expose this apparatus to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the apparatus.
- 12. DO NOT modify or alter in anyway.
- 13. SWITCH OFF amplifier prior to connecting speakers.
- 14. DO NOT exceed the Safe Working Load of the apparatus. The Safe Working Load Limit is 600 lbs / 272.155kgs.\*



The exclamation point, within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.



The lightning flash with arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electrical shock to persons.

WARNING: To reduce the risk of fire or electrical shock, do not expose this apparatus to rain or moisture.

WARNING: No naked flame sources - such as candles - should be placed on the product.

WARNING: The apparatus is not designed to be used for any type of moving or lifting installation.

WARNING: For Indoor use only.

WARNING: Neglect to follow the safety and installation instructions may cause malfunctions resulting in property damage and personal injury

WARNING: Installation must be done by qualified personnel to appropriate standards and/or building codes.

<sup>\*300</sup> lbs/136.078 kg per rigging point

## IMPORTANT SAFETY INSTRUCTIONS



WARNING: Do Not Open! Risk of Electrical Shock. Voltages in this equipment are hazardous to life. No user-serviceable parts inside. Refer all servicing to qualified service personnel.

#### **EU COMPLIANCE INFORMATION:**

Eligible to bear the CE mark, Conforms to European Union EMC Directive 2004/108/EC; European Union Restriction of Hazardous Substances Recast (RoHS2) Directive 2011/65/EC; European Union WEEE (Recast) Directive 2012/19/EC; Conforms to European Union Low Voltage Directive 2006/95/EC; European Union Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) Directive 2006/121/EC

You may obtain a free copy of the Declaration of Conformity by contacting your dealer, distributor, or Klipsch Group, Inc.'s worldwide headquarters. Contact information can be found here: http://www.klipsch.com/Contact-Us

#### **WEEE NOTICE**

Note: This mark applies only to countries within the European Union (EU) and Norway.



This appliance is labeled in accordance with European Directive 2012/19/EC concerning waste of electrical and electronic equipment (WEEE). This label indicates that this product should

not be disposed of with household waste. It should be deposited at an appropriate facility to enable recovery and recycling.

## KLIPSCH KI-398-B-RGL LOUDSPEAKER

The following guidelines are for installation of Klipsch Kl-398-B-RGL speakers as Behind Screen main speakers for Front Left/Right/Center applications and can be referred to for special applications such as front height speakers used in select digital sound formats.

The KI-398-B-RGL speakers are installed behind screen in a predetermined number of vertical line arrays (up to six speakers can be assembled in one array) and the number of vertical line arrays (and speakers in one array) is predetermined by the desired output (SPL) and coverage based upon the size of the auditorium. The number of arrays, the number of speakers in each of those arrays and the positioning of each array for a particular cinema should be communicated via a blueprint or equivalent method from the acoustic engineer who originally determined the proper SPL and coverage for that cinema. All arrays must be suspended from a solid structure (such as a scaffolding or other solid structure) built in the space behind the screen.

NOTE: The user assumes all responsibility and liability for the proper design, installation and use of any rigging and mounting systems and safe lifting to and attachment of all speakers/arrays to those rigging and mounting systems. Any structure/wire cable/chain used to suspend the KI-398-B-RGL speakers must be determined safe and capable of supporting the weight of all speakers/arrays within an industry standard Working Load Limit (WLL) and with a given Safety Factor by a qualified structural engineer. This installation should only be performed

by competent and qualified persons possessing the proper hardware and having adequate knowledge of safe rigging practices.

The KI-398-B-RGL speaker is equipped with four, 3/8" 16-threaded inserts on the top, bottom and each side of the speaker cabinet. The speakers are to be mounted in a horizontal position and connected together to make a vertical array of up to six speakers utilizing Klipsch KI-398-MMA Large Plate Mounting Kits, which are included in separate packaging with the speakers.

NOTE: Before suspending any speaker system always inspect all components (enclosure, rigging frames, eyebolts, track fittings, etc.) for cracks, deformations, corrosion, missing, loose or damaged parts that could reduce strength and/or safety of the array.

The arrays are assembled and then safely hoisted via a method approved by a qualified rigging expert and/or qualified structural engineering representative in order to safely position them at their appropriate point on the structure (scaffolding) for attachment.

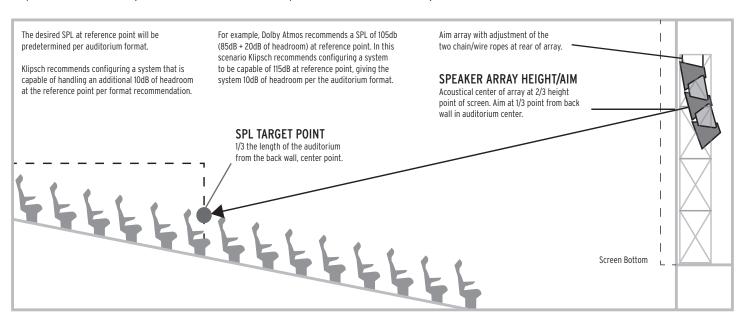
# ARRAY PLACEMENT/AIMING

All Left, Right and Center channel arrays are positioned behind-screen so that their acoustic centers are positioned in-line with the 2/3 height point of the screen from the screen bottom.

Once arrays are positioned on the structure for attachment and suspension, aim each array's acoustic center at the center point of

the auditorium, that is 1/3 the length of the auditorium distance from the rear wall. Aim the acoustical center of the array at a downward angle to ear height.

Aim by adjusting the connections on the two rear eye bolts on the top of the array.



## ARRAY ASSEMBLY

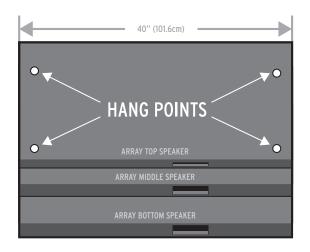
- Begin array assembly on ground level by utilizing the four Hang Points (Diagram 1) on the cabinet top (speaker horizontally placed) to attach four forged shoulder eye bolts, 3/8" 16 thread.
- Apply a drop of thread locking adhesive to the thread ends of the eyebolts, hand tighten into inserts in cabinet then securely tighten eyebolts by turning an additional half turn.
- Attach second speaker cabinet (and third, fourth, fifth and sixth if used) under the cabinet having eyebolts inserted into its top by placing first cabinet vertically on floor and positioning second cabinet vertically on floor, facing the same direction, next to it. (Diagram 2)
- 4. Place one large side plate from the KI-398-MMA Large Plate Mounting Kit on top of the edges of the two speakers vertically positioned close to each other as shown in Diagram 2.
- 5. The KI-398-MMA Large Plate Mounting Kit is pre-drilled with eight mounting holes. The back end of the plate has three mounting holes at the top and three additional at the bottom. Choose the appropriate mounting hole at both ends to achieve the desired array angle. (Diagram 3)
- 6. Using the four 3/8" 16 threaded bolts and four 3/8" washers included with the mounting kit, line up the predetermined four of eight mounting plate holes with the four corresponding threaded inserts between the two speaker cabinets.
- Screw the four bolts with washers through the mounting plate into the corresponding threaded inserts on the two speakers and tighten down.

- 8. Position the third speaker vertically next to second speaker (if assembling a three speaker array) in the same manner the second speaker was vertically positioned to the first, facing the same direction
- Using a second large side plate and four corresponding 3/8" 16 threaded bolts from the mounting kit, position the plate on the edge of the second and third speakers as shown in Diagram 2.
- 10. Screw the four bolts with washers through the large side plate into the corresponding threaded inserts on the two speakers and tighten. Continue same procedure for fourth, fifth and sixth speakers if assembling a four, five or six speaker array.
- 11. With one side of the speaker array now tightly fastened together, with two to four capable people, gently turn over the entire array on its opposite side.
- 12. Using large plates and corresponding bolts and washers from the mounting kit, bolt down plates in the same areas of the speakers now on their opposite sides. Continue same procedure for fourth, fifth and sixth speakers if assembling a four, five or six speaker array.

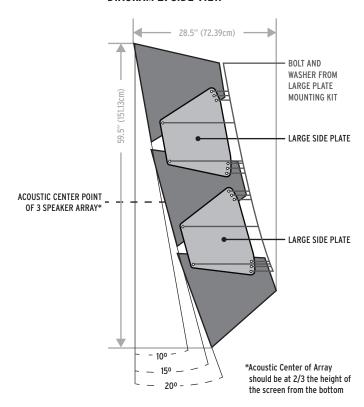
NOTE: Make sure large side plates are securely attached to each speaker on both sides of the array using both the included bolts and washers in the Klipsch KI-398-MMA Large Plate Mounting Kits. Do so before the array is lifted/hoisted into position.

# ARRAY ASSEMBLY (CONT.)

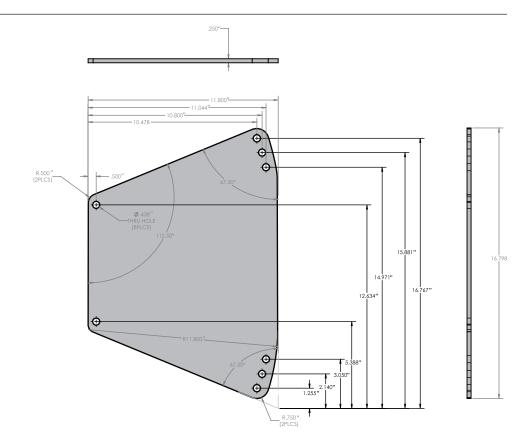
### **DIAGRAM 1: TOP VIEW**



### **DIAGRAM 2: SIDE VIEW**



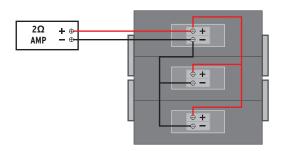
## **DIAGRAM 3: LARGE PLATE MOUNTING KIT**



# **ARRAY WIRING / AMP CONNECTION**

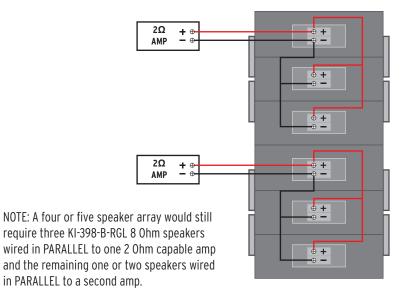
#### CONNECTING ALL SPEAKERS IN AN ARRAY TO ONE AMPLIFIER

The Klipsch Kl-398-B-RGL speaker's rated Nominal Impedance is 8 Ohms. One amplifier can be connected to power up to three speakers wired in PARALLEL IF that amplifier is capable of 2 Ohms impedance. Wiring Example 1 shows three Kl-398-B-RGL's wired in PARALLEL to one amplifier.



### CONNECTING SPEAKERS IN AN ARRAY TO TWO SEPARATE AMPLIFIERS

Wiring Example 2 shows three KI-398-B-RGL's in a 6 speaker array wired in PARALLEL to one amp and the remaining three speakers in the array wired in PARALLEL to a second amp. This wiring method, with equal speaker numbers on each amp, allows the maximum number of 8 0hm speakers on each 2 0hm capable amp.





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