IC Live Gen5

Digitally Steerable Line Array Loudspeaker Systems

IC Live Gen5

USERS MANUAL

Assembly & Installation Instructions

ICL-F-RN • ICL-F-DUAL-RN • ICL-F-TRIP-RN
ICL-F-RD • ICL-F-DUAL-RD • ICL-F-TRIP-RD

rh RENKUS-HEINZ

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.

2. Keep these instructions.

3. Heed all warnings.

4. Follow all instructions

5. Do not use this apparatus near water. The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on it.

6. Clean only with dry 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. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11. The AC Power Cord is the AC Mains disconnect.

12. Make sure the power cord remains readily accessible at all times.

13. Only use attachments/accessories specified by the manufacturer.

14. Use only with the 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.

15. Unplug this apparatus during lightning storms or when unused for long periods of time.

16. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

17. WARNING - TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

18. CAUTION: THESE SERVICING INSTRUCTIONS ARE FOR USE BY QUALIFIED SERVICE PERSONNEL ONLY. TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE OPERATING INSTRUCTIONS UNLESS YOU ARE QUALIFIED TO DO SO.

Explanation of Graphical Symbols

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the use to 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 humans.

The exclamanation point, within an equilateral presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

Erklärung der graphischen Symbole

Der Blitz mit nach untenzielendem Pfeil in einem gleichseitigen Dreieck weist den Benutzer auf das Vorhandensein einer unisolierten, "gefährlichen Spannung" im Gehäuse hin, die stark genug sein kann, einer Person einen gefährlichen elektrischen Schlag zu versetzen.

Das Ausrufezeichen in einem gleichseitigen Dreieck weist den Benutzer auf wichtige Betriebs- und Wartungsvorschriften in den beiliegenden Unterlagen des Gerätes hin.

CAUTION

**RISK OF ELECTRONIC SHOCK:
OPEN ONLY IF QUALIFIED AS
SERVICE PERSONNEL**

To reiterate the above warnings: servicing instructions are for use by qualified personnel only. To avoid electric shock, do not perform any servicing other than that contained in the Operation Instructions unless you are qualified to do so. Refer all servicing to qualified personnel.

VORSICHT

**GEFAHR EINES ELEKTRISCHEN SCHLAGES:
NUR VON QUALIFIZIEREM WARTUNGSPERSONAL
ZU ÖFFNEN**

Eindrigliche Warnung:
Wartungsvorschriften dienen nur der Benutzung durch qualifizieres Personal. Zur Vermeidung eines elektrischen Schlages keine anderen als die in den Betriebsvorschriften beschriebenen Wartungsarbeiten ausführen, es sei denn Sei sind dafür qualifiziert. Wartungsarbeiten auszuführen.

IMPORTANT
**Your Iconyx Gen 5 Steerable Column Loudspeaker contains no user-serviceable
parts and all service should be referred to qualified service personnel.**

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INTRODUCTION

Congratulations on your purchase of a Renkus-Heinz RHAON II Empowered, digitally steered IC Live Gen 5 loudspeaker system.

We hope you enjoy it.

Your IC Live Gen 5 loudspeaker was carefully tested and inspected before leaving our factory and should have arrived in perfect condition. Please carefully inspect the shipping carton(s) and loudspeaker(s) for any noticeable damage, and if any damage is found, immediately notify the shipping company. Only you, the consignee, may institute a claim with the carrier for any damage incurred during shipping. Be sure to save the carton(s) and all packing material for the carrier's inspection. It is also a good idea to save the carton and packing material even though the loudspeaker arrived in good condition. If you should ever need to ship the loudspeaker, it should be shipped in its original factory packaging.

Technical Support

If you have any questions about Renkus-Heinz loudspeakers or encounter a problem designing, installing, setting up or operating a Renkus-Heinz system, please call our technical support staff at +1 949-588-9997 and ask the operator for technical support. Hours of operation are Monday through Friday from 8:00 AM to 5:00 PM US Pacific Time.

The latest information is always available online at http://www.renkus-heinz.com under the Service and Support heading. You will also find a support request form there.

About RHAON II

Your IC Live Gen 5 digitally-controlled, steerable column loudspeaker is RHAON II Empowered. RHAON II ("rayon two"), the Renkus-Heinz System Manager Software, combines digital audio distribution with precise control and supervision of Renkus-Heinz self-powered loudspeakers. RHAON II uses standard Ethernet hardware and on-board DSP (digital signal processing) to allow self-powered Renkus-Heinz loudspeakers to respond to user input in real time. Download the latest version of RHAON II from the Renkus-Heinz website here: https://www.renkus-heinz.com/rhaon-ii-software.

About Dante Controller

If your IC Live Gen 5 digitally-controlled, steerable column loudspeaker has the optional Dante Digital Audio network option, you will need to download Dante Controller from Audinate's website: https://www.audinate.com/products/software/dante-controller. Once you have selected the Dante input using RHAON II, all system audio routing will be done in Dante Controller. If you have not yet become Dante Certified through Level 3, we strongly recommend doing so before you work on your first Dante system. https://www.audinate.com/resources/training-and-tutorials/dante-certification-training. This training will save you much more time than you will have invested in completing it.

IMPORTANT
If you will be controlling/supervising your RHAON II empowered system with a laptop, do not close the laptop's lid or allow your laptop to go to sleep (hibernate) during operation.

General Information

Your RHAON II empowered loudspeaker's amplifier/DSP stores all configuration settings, including the input source selection, in non-volatile memory (settings will remain through a power cycle). Analog Input 1 has been pre-selected at the factory so you can use the loudspeaker as an ordinary self-powered loudspeaker out of the box. Just connect a line level audio signal to Analog Input 1 and connect the AC power. If the loudspeaker was previously put into its standby power mode or another input was selected, it will be necessary to connect it to a computer running RHAON II to change these settings or press the RESET button next to the RJ45 port (see page 11).

You will need a computer with a NIC (Network Interface Card) and Windows-based RHAON II software to change the input selection, beam steering or any of the other DSP settings. Once your DSP settings are stored in non-volatile memory, the computer can be disconnected from the network. You will need to connect a computer only when you want to change the settings or when you want to view the status of connected loudspeakers.

Renkus-Heinz engineering has programmed the on board DSP to optimize the loudspeaker's performance and to ensure its safe operation. Replace the amplifier module only with another unit that has been factory programmed for the same loudspeaker. Contact our Technical Support Department for details and assistance.

ASSEMBLY INSTRUCTIONS

To simplify shipping and handling, ICL-F-DUAL-RN and ICL-F-TRIP-RN arrays are shipped as modules in separate cartons and need to be assembled in the field. All the hardware needed to assemble them is included in the cartons.

The HK-ICL series mounting hinge kit is included with your array and will be packed with the other hardware.

In the following instructions, the term "module" is used to refer to one of the 8-channel sections of the finished assembly, which is called a column or an array.

Prepare an assembly area. Each module is 4 ft./1.2 m long, so you need a flat surface at least 8 ft./2.4 m long to assemble the dual array; 12 ft./ 3.6 m for the triple array. We suggest covering the assembly area with a heavy cloth or some other soft material to prevent damaging the finish on the cabinets while assembling them. A carpeted floor is often the best option.

Place the modules in their respective positions on the assembly area. Avoid resting the modules on their grille. The modules are heavy and may deform the grille. Instead, rest the modules on their sides or back.

Note: The proper way of assembling the modules is shown in the illustration at right. Note that the horn sections of the ICL-F-RN or RD and ICL-F-RS modules are joined together to build the dual. Proper orientation of the ICL-LM-F-RS module in "Triple" arrays is also important. Make sure the LM module's rear panel LED display is at the bottom of the module.
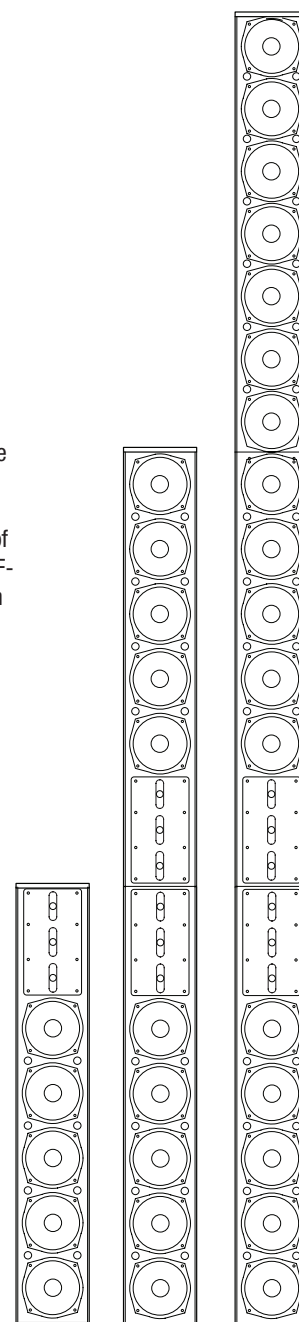
To join IC Live modules into a dual or triple array, you will use the included ICL-F-KIT-UP joining kits. Each kit contains
two heavy metal joining plates.

The first assembly step for a dual is to remove the top of both modules. To remove the top, remove the eight machine screws from each side of the cabinet and lift the end piece and its mounting brackets out of the cabinet.

Align the two modules to be joined so that the top of the lower one and the bottom of the upper one are close to one another, say 4"/10 cm apart.

The next step is to install the two joining plates They will be packed with the hardware.

Use the mounting bracket machine screws removed above to install the two joining plates.
Tighten the screws lightly. The joining plates need to be a little loose to slide into the other cabinet. Each module has a CAT5e cable and a power cable inside that must be connected to the RJ45 connector and power connector in the other module.
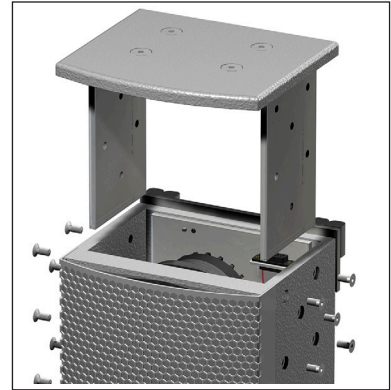

Note: Only one joining plate is shown in photo, two are required.

The mounting hinge kit for the array should also be attached at this point. Attach the heavy joining plates from the hardware package to the rear of the cabinet using the machine screws provided. A mounting plate that attaches between two modules of a dual or triple array is double the size of a mounting plates that attaches to the ends, as shown at left. Tighten the screws loosely to allow a little movement while joining the two modules.

Note that the holes in the hinge mounting bracket must be facing down to hang on the wall bracket. Align the two modules and slide them together, making sure the holes in the heavy joining plates align with the holes in the modules. Install the remaining screws into the joining plates and tighten all the screws. The assembly is now complete.

If you are making a triple array, repeat the procedure to join the ICL-FR-LM module to the other two modules.
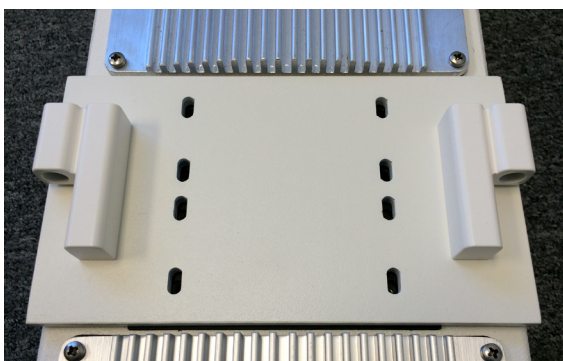
Address Number Verification

Next verify that the Slave modules are properly identified. The settings were set at the factory, but it's always a good idea to check them. This is accomplished with the dip switches located on the rear of each module. Set the switches in accordance with the illustrations shown below.

The Master module (ID 0 in RHAON II) is on the bottom by default and the other modules will be Slave IDs 1 and 2 in ascending order. However, the Master and Slave ICL-F modules can be swapped. For example, the Master may be on top to allow for different cable drop placement. The dipswitch ID settings on the Slaves must match the column order in RHAON II and both must match the vertical order of the modules. Refer to the section on Column Ordering in the RHAON II User Manual.

If power was connected to the Array before setting the dip switches, it will need to be disconnected and reconnected before the dip switch settings will take effect.

Slave ID Switches and Legend →
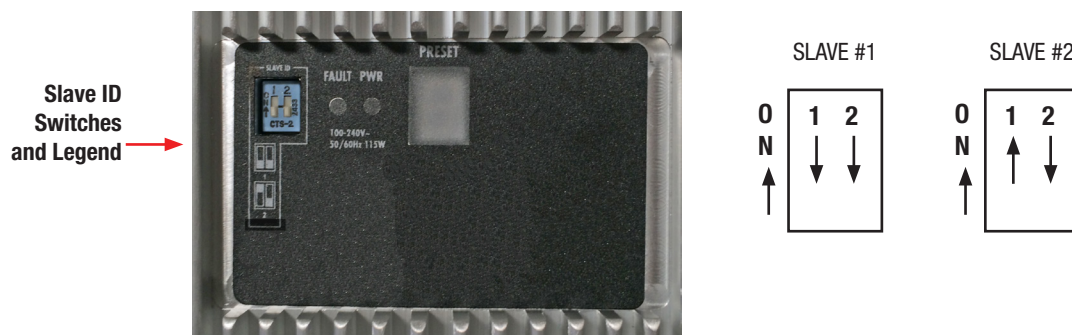
INSTALLATION

General Information

IC Live Gen 5 hardware was designed to be easy to install on a flat surface, such as a wall. If mounted in the wall or in an alcove you must allow for air circulation. The amplifiers are convection cooled and their heat sinks require at least an inch of separation from the nearest surface and cooling air must be able to flow across the heat sinks from the bottom to the top.

The included hinge kits allow wall mounted arrays to be rotated up to 90 degrees away from the wall to provide easy access to the rear ports during installation and for any testing or service. They also provide the separation needed for cooling.

The actual installation should be made either by, or under the close supervision of, someone experienced in installation techniques, and rigging related to the type of mounting surface or wall.

Wall Mounting Information

The following instructions assume that the array(s) will be mounted using the included HK series hinge kits.

HK series hinge kits come standard with Gen 5 arrays and will be packed in one of the cartons. Each mounting plate has a pin that may be moved to provide for either "right" or "left" swing away from the wall. ICL-F-RN & RD columns will have two hinge sections; duals and triples will have three hinge sections.

The female hinges are attached to the column and the male hinges to the wall. The photos below show the male mounting plates with pins in both positions for illustrative purposes.

Notice that one of the wall mounting hinge plates has a metal strap attached to it. This hinge plate can go on the top or bottom. The metal strap attaches to the top or bottom of the array after it is hung and is used to lock the column array in place.
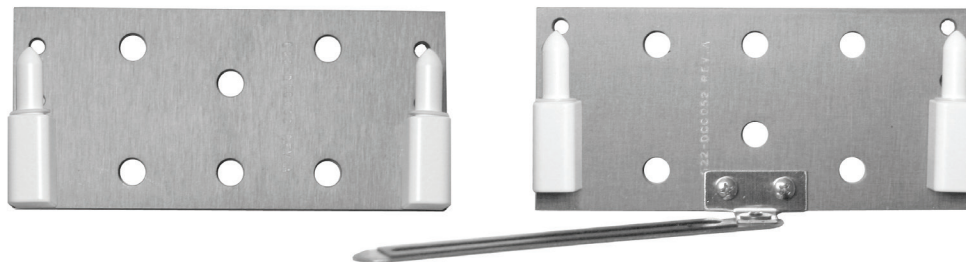
Hint: To simplify the mounting many installers will first cut a "backing plate" the size of the column out of heavy plywood and mount the hinge plates on it. It's a lot easier to align the hinge sections on a piece of plywood than it is on the wall. Then, when the alignment is perfect they mount the "backing plate" to the wall. After that, it's usually a comparatively easy task to hang the column array on the backing plate.

After the column array is mounted on the wall, remove the machine screw from the center of the end cap with the restraining strap and use it to attach the strap.

In outdoor or weatherized applications, the restraining strap should only be used on the bottom.

IMPORTANT WALL MOUNTING INSTRUCTIONS

WARNING: THIS APPARATUS MUST BE SECURELY ATTACHED TO THE WALL IN ACCORDANCE WITH INSTALLATION INSTRUCTIONS. FAILURE TO FOLLOW INSTALLATION INSTRUCTIONS MAY RESULT IN INJURY.

To ensure proper air movement for the cooling of the amplifier, we recommend a minimum of 2 to 3 ft./0.6-1 m of clearance in front of the loud-speaker and 1 in./2.5 cm of clearance from the other cabinet surfaces.

Installation should only be performed by skilled and qualified personnel who are experienced in mounting heavy loads to the desired wall con-struction type.

These loudspeakers are intended to be securely mounted using the included Renkus-Heinz, Inc. HK Series hinge kits and are not intended to be free-standing.

These loudspeakers have not been evaluated for safety requirements using other mounting kits.
Renkus-Heinz is not responsible for the quality or effectiveness of an installer's mounting of this heavy load to the wall type encountered during installation.

Hardware Required

- Models ICL-F-RN or RD
  - Eight – Size M6 or 1/4" lag bolts, expansion anchors or other fasteners suitable for mounting a heavy load to the desired wall surface.
  - One – Renkus-Heinz, Inc. Hinge Kit Model HK-ICL-F

- Models ICL-F-DUAL-RN or RD, ICL-F-TRIP-RN or RD
  - Twelve – M6 or 1/4" lag bolts, expansion anchors or other fasteners suitable for mounting a heavy load to the desired wall surface.
  - One – Renkus-heinz, Inc. Hinge Kit Model HK-ICL-DUAL-F or HK-ICL-TRIP-F

Tools Required

- Drill and bits suitable for use on the desired wall type
- Socket Driver
- Socket to fit wall mount hardware
- Philips #2 screwdriver

Wall Mounting Procedure

NOTE: Each HK series hinge consists of two parts, a male mounting plate and a female mounting plate. The female hinge plates should be attached to the loudspeakers. The male mounting plates attach to the wall. The proper number of mounting plates are included for the size of loudspeaker ordered.

Each male mounting plate is provided with 6 mounting holes. At least four fasteners in each male mounting plate, suitable for the wall's construction, are needed to fully satisfy mounting needs and safely secure Iconyx loudspeakers to the wall.

– Determine the desired height of the loudspeaker and mark the location of the male mounting plates using the template

– Mark points on the wall where mounting screws will be positioned.

– Set aside the template and using an appropriate drill bit, drill holes at the marked points

– Secure the mounting plate to the wall with fastener suitable for the wall's construction

– Repeat until all male mounting plates are installed.

– *NOTE: The male mounting plate with an attached slotted locking strap can go in the top or bottom location.*

– Lift the loudspeaker onto the hinge pins.

– Secure the loudspeaker by attaching the metal locking strap to its top or bottom using the machine screw provided.

– Installation is complete.
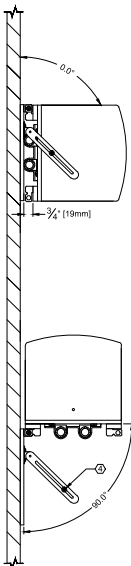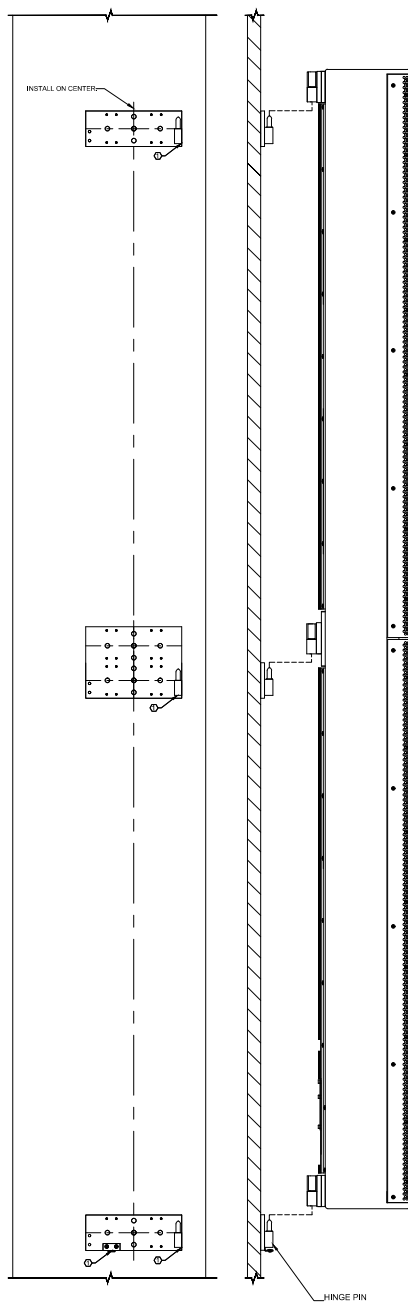
BOTTOM VIEW, SHOWN AIMED @ 90° AND AIMED @ 0°.

WARNING!
HANGING LOUDSPEAKERS IS A SERIOUS UNDERTAKING THAT SHOULD BE DONE ONLY BY QUALIFIED AND EXPERIENCED PERSONNEL. CHECK WITH AN ARCHITECT OR STRUCTURAL ENGINEER TO VERIFY ANY BUILDING ATTACHMENT POINTS. RENKUS-HEINZ IS NOT RESPONSIBLE FOR ANY NON-RENKUS-HEINZ PRODUCTS OR FOR ANY MISUSE OF RENKUS-HEINZ PRODUCTS.

NOTES
1. TO OPEN THE UNIT IN THE REVERSE DIRECTION, MOVE HINGE PIN TO THE OTHER SIDE.
2. DIMENSIONS ARE ROUNDED TO 1/16".
3. NOT TO SCALE
4. REMOVE SCREW TO OPEN THE UNIT 90° FOR INSTALLATION, REPLACE WHEN INSTALLATION IS COMPLETE.

WARNING!
HIGH LEAKAGE CURRENT
EARTH CONNECTION ESSENTIAL
BEFORE CONNECTING SUPPLY

Earthing/Grounding Connection

The IC Live Dual & Triple amplifiers are equipped with an earthing/grounding clamp on the back of the units, near the input pocket. For safety, the earthing/grounding clamp on the amplifier must be connected to a nearby earth/ground connection before the unit is connected to mains power.

1. Use a green or green & yellow, 4 mm^2/12 AWG wire separate from the grounding conductor in the mains power cord.

2. Strip 10 mm / $\frac{3}{8}$ in. of insulation and securely clamp one end of the wire in the earthing/grounding clamp.

3. Strip sufficient insulation and securely fasten the other end of the wire to a nearby ground or earth point.

4. Connect the mains power in the input pocket.
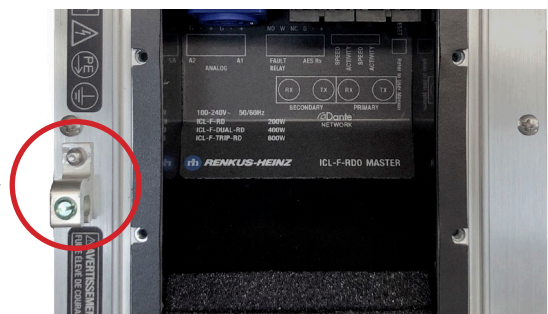
Grounding/earthing clamp on amplifier

HARDWARE CONNECTIONS & INDICATORS

Fault Relay
NO / NC relay contacts used to report a failure to an external monitoring system; used mainly to trigger a failure indication on a hard-wired monitoring device; handles up to 0.5 Amps at 24 V AC or DC

Fault Relay
Pins NC, W and NO see Fault Relay at left for details

AES/EBU Input

Ethernet Connection
RJ-45 female: Yellow LED flashes when the connector is active, glows steadily when data is streaming. Green LEDs glow when connected but inactive, turn Orange to indicate a faulty connection.
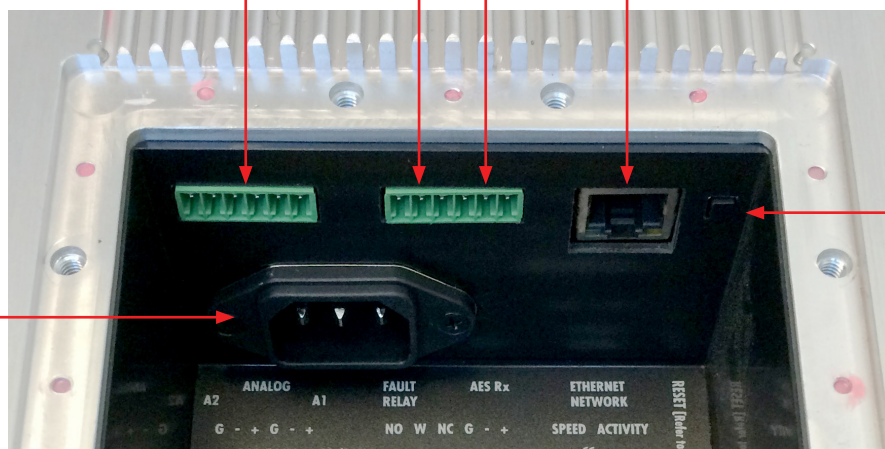
Analog Inputs 2 and 1
Phoenix 6-pin connector

Reset Button

When pressed, the loudspeaker will restart and be returned to factory default settings. This will not delete Presets.

90/260 V AC IEC Power Connector

Signal LED
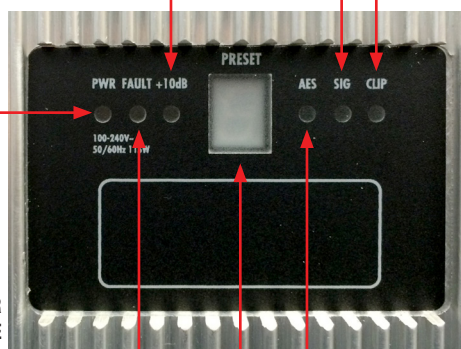Flickers when an audio signal of at least -30 dBu is present at the primary analog audio input.

Clip LED
Flashes red when the Analog Input preamplifier is being overdriven

+10dB Boost LED
Illuminates when the +10dB Boost is enabled

Power LED

Power LED

Master/Slave Setup Switches and Legend

MASTER MODULE

SLAVE MODULE
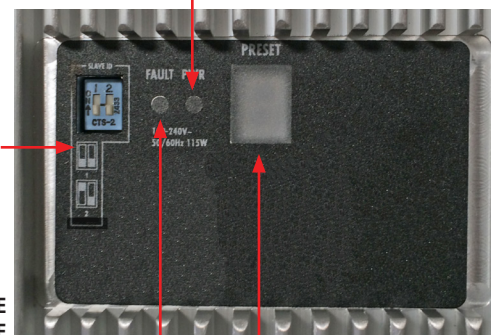
Preset Readout

Preset Readout

Fault LED
Lights to indicate that an over-temperature sensor has shut down the amplifier

AES LED
Illuminates when the AES input is selected

Fault LED
Lights to indicate that an over-temperature sensor has shut down the amplifier

FIRMWARE UPDATE

Updating Microcontroller and DSP Firmware

The latest firmware was installed in your loudspeaker before it was shipped to you. However, new firmware is released from time to time for a variety of reasons. If you are having problems with your system, we may ask you to update the firmware as part of the troubleshooting procedure. We recommend that you not update the firmware without specific reason or without direction to do so from Renkus-Heinz Technical Support.

If you do need to update your firmware, RHAON II makes it easy to do by following the steps below.

IMPORTANT: The loudspeaker's settings must be saved to a Preset prior to updating the firmware. Updating the firmware will return the loudspeaker to factory defaults. Subsequently loading the saved Preset will return the loudspeaker's tuning settings.

1. Download the necessary firmware or latest RHAON II version from the Renkus-Heinz website, as directed by Technical Support.
2. Connect the loudspeaker(s) to be updated to your computer's Ethernet port – directly or via a switch. The computer's NIC should be set to obtain an IP address automatically.
3. Install RHAON II if it is not already installed and launch it.
4. Any connected loudspeakers should be visible in Network Discovery on the left side of RHAON II.
5. Right click one of them and select Manage Firmware.
6. Previous releases of the firmware appropriate to the device will automatically appear in black. If a new version of RHAON II was downloaded, it will contain the latest firmware. If firmware was downloaded separately, use the Browse button to point RHAON II to the firmware's downloaded location. **
7. The highest numbered Slave will be automatically selected when opening Manage Firmware. Click on the desired firmware and it will turn blue. Slaves should be updated before Masters.
8. Click on Update Firmware to start the update. It will finish automatically and restart. Multiple arrays can be updated simultaneously. Use the pulldown to select Slave 1, 2 or 3. Repeat for all Slave columns.
9. Use the pulldown to select Master and repeat the steps above to select the firmware version desired.
10. Repeat for all Master columns. The same version of firmware must be on all units.
11. Exit RHAON II, cycle the power on all updated columns, relaunch RHAON II.
12. When the loudspeakers become available again in Network Discovery, add them to Devices then to the Active Zone. Click on Details under Status to confirm the newly installed firmware version.

** After downloading firmware separately, it can be placed in the following folder on the computer's hard drive to automatically appear in RHAON II:
C:\Renkus-Heinz\RHAON2\AVDECC_MicroC_Firmware
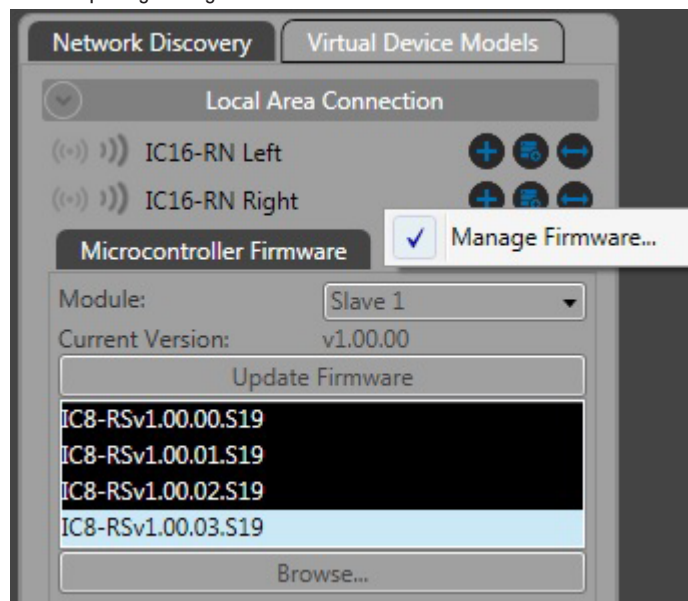
SERVICING AND TROUBLESHOOTING

Your Iconyx Gen 5 steerable column array contains no user-serviceable parts. All service should be referred to qualified service personnel.

Great care was taken in its design, however, to allow it to be serviced in the field without being removed from its mounting position. The transducers can be replaced from the front of the column by removing the grille to expose the transducers and their mounting screws.

The digital amplifier/DSP and associated power supply that are the heart of each module is one single assembly that can easily be taken out and replaced from the rear.

General
Your Iconyx Gen 5 array was factory tested before it left our factory and barring shipping damage should be in perfect operating condition.

Nevertheless, it is always a good idea to run a quick check on each module / array before taking it out to the job site and installing it.
If you should run into a problem at the site, it's then more likely that the problem is in the network or the system wiring and not in the loudspeakers.

Preset 0 is set to "Flat" and locked which sends an equal signal to all transducers for use in amplifier and transducer testing.

The Analog 1 input is set as the factory default so it's a simple matter to connect a line level analog signal to an array and check out its performance.

Hum & Noise
The most common sources of system hum are the program source or an improper or poor ground on an audio signal line. Check the program source to make sure the hum isn't originating there. Carefully check all the audio connections to make sure they are properly made.

Most noise problems are the result of improper grounding or of noise being induced into the audio signal line from adjacent noise sources, such as fluorescent lights, and close proximity of the audio signal lines to lines radiating noise. Carefully review all the audio connections and turn off all the lights and any other suspected noise sources.

Network Connectivity

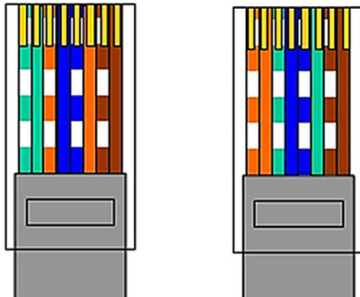Some common symptoms of network connectivity problems include:
- Red Network Error indicator in a Device's Zone view
- Cannot use a Device (add to Devices or Zones) that appears in Network Discovery
- Errors when writing beams

Solutions to the above problems may include the following cable work:
- Check for split pairs. A split pair cable will drop packets even if the cable is only 2 meters long. The wiring example diagrams shown below represent an incorrect split pair and correct wiring.
- Re-make the RJ45 connector. A marginal or corroded crimp will cause dropped packets.
- Check the cable length. The Ethernet standard for unshielded twisted pair copper cables is a maximum 100 meters (330 ft.).
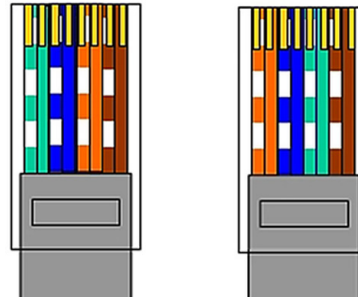
CORRECT WIRING	**INCORRECT WIRING (Split Pair)**
Pins 1 & 2 = 1 pair	Pins 1 & 2 = 1 pair
Pins 3 & 6 = 1 pair	Pins 3 & 4 = 1 pair
Pins 4 & 5 = 1 pair	Pins 5 & 6 = 1 pair
Pins 7 & 8 = 1 pair	Pins 7 & 8 = 1 pair

Suspected Transducer Failure

Defective transducers are hard to locate in steerable column arrays because the transducers are so close together. If one is bad, it's hard to tell which one it is. The digital steering reduces the drive to some of the transducers making it difficult to determine if a certain transducer has failed or is just being driven at a much lower level than other transducers. No movement of the cone of a transducer is not positive proof that the transducer is bad. It could be that beam steering is limiting the drive to the transducer or restricting its use to a narrow frequency band.

In Iconyx arrays, Preset 00 is set to send an equal signal to all transducers. To check for a defective transducer, select Preset 00, remove the grille from the module(s) and use your fingertips to feel for cone vibrations while music is being played through the system.

Note that it is also possible, and likely more convenient, to perform the open coil test available in RHAON II. The test must be enabled in RHAON II Preferences then will appear in the Active Zone view for each array. Always recall Preset 0 before performing this test. The test will cause the loudspeaker to emit a loud tone for several seconds. Refer to the RHAON II User Manual for more information.

USER NOTES

RENKUS-HEINZ