TRX SERIES

compact

innovative

versatile

RENKUS-HEINZ

ADVANCING SOUND. PROVIDING SOLUTIONS.

TRX SERIES
TWO-WAY LOUDSPEAKER SYSTEMS PROVIDING COMPACT VERSATILITY, OUTSTANDING SOUND QUALITY AND EFFICIENT REFERENCE POINT ARRAYS.

TRX SERIES: MORE OPTIONS. GREATER VERSATILITY. BETTER SOUND.

Audiences demand an experience that can't be duplicated at home; operators demand tools that deliver astonishing performance in many applications; designers demand solutions that fit the budget without cramping style or quality.

Conventional loudspeaker technology can't keep pace with the evolution of today's live sound environments. It takes real innovations, born of imagination, creativity and a stubborn refusal to accept the limitations of the ordinary.

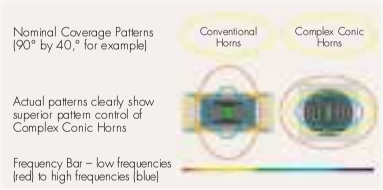
That's the way Renkus-Heinz engineering approaches each new challenge. The compact, two-way TRX Series reflects our way of doing things in every aspect, from the advanced transducers, to our unique Complex Conic horn topology, to multi-angle, multi-function enclosures.

TRX Series loudspeakers are engineered to move the price/performance curve at venues of all sizes by applying RH Engineering breakthroughs such as the TRAP TRue Array Principle and Reference Point Arrays. RPA's are fully integrated electro-acoustic systems, with signal processing, amplification, flying hardware and cabling all optimized to deliver superior fidelity and pattern control.

COMPLEX CONIC: THE NEXT STEP IN HORN EVOLUTION.

Designed around the spherical expansion of the acoustic pressure wave, Complex Conic horns provide constant beamwidth/directivity without the problems of conventional rectangular horns. These unique waveguides eliminate low frequency "pattern flip". Their circular mouths have no corners to cause high frequency "feathering" and the resulting distortion. Because they have no planar surfaces, Complex Conic horns also are less prone to in-band resonances than ordinary horns.

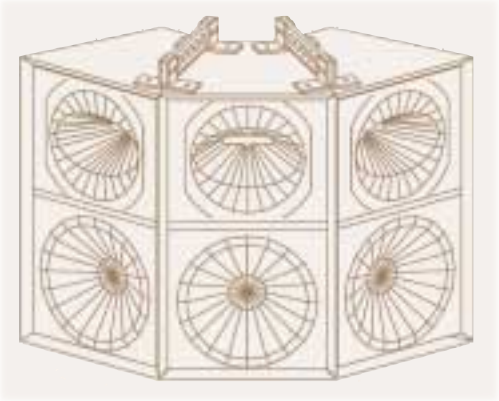
With extended pattern bandwidth, lower distortion and minimal coloration, Complex Conic horns work better and sound far more natural than ordinary horns.



TRAP [TRUE ARRAY PRINCIPLE]
a unique design innovation
RPA [REFERENCE POINT ARRAY]
a total design solution

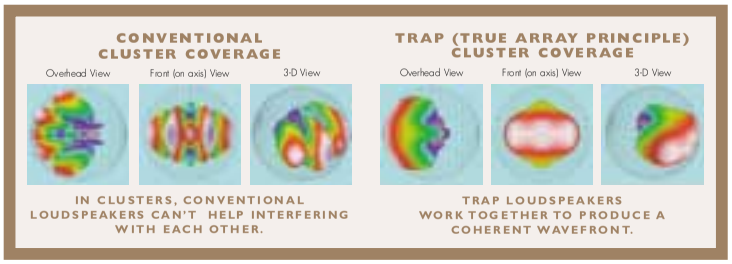
THE PHYSICAL FOUNDATION: TRAP [TRUE ARRAY PRINCIPLE] DESIGN

Electronics can improve the performance of any array. But only TRAP (TRue Array Principle) loudspeakers make a single source of sound even in large arrays. Ordinary loudspeakers can't help interfering with each other in clusters, because their acoustic centers are widely spaced. That's why we designed TRAP horns and enclosures to align the acoustic centers. The horn angles are matched to the trapezoidal enclosures, which are designed to place the drivers as close together as physically possible. All sound originates in the same spot, so interference between adjacent horns is practically eliminated. Arrays of TRAP loudspeakers produce a phase aligned wavefront with uniform frequency response across the coverage area. Below the horn's cutoff frequency, RPA signal processing eliminates low frequency interference and can improve pattern control. The result is great sound at every seat.



THE PLUG 'N PLAY ARRAY: RPA [REFERENCE POINT ARRAY] INTEGRATION

RH Engineering's RPA design process integrates loudspeakers, electronics, cabling and hardware to produce "plug 'n play arrays" that act as a single broad-band acoustic source. In our test center, we optimize the entire signal chain from line level to listener, adjusting crossover, equalization, delay and limiting parameters for each Reference Point Array. We also configure hardware and cabling assemblies to ensure precise loudspeaker placement and correct signal flow. The result of this pain-staking, complex design effort is a range of complete systems that install quickly and act as coherent acoustic sources "out of the box." TRX121T and TRX151T arrays deliver from 80° to 160° of smooth, seamless horizontal coverage. They will save you hours of installation and commissioning time, while delivering results that are superior to "handmade" arrays using conventional components.



MORE PERFORMANCE, LESS SPACE. TRX SERIES.

6 AND 8 INCH NEAR FIELD LOUDSPEAKERS

It's not hard to stuff components into a small box. But to do it without losing output and low end? That's not so easy. Compact TRX loudspeakers have the performance and versatility to fit any application where size is an issue. All offer outstanding full range performance and surprisingly high output. With rotatable Complex Conic horns, multi-angle/multi-function enclosures (TRX81 & TRX82), portable or installation hardware, and a wide range of finishes, these small loudspeakers put big sound wherever you need it.

(Note: The TRX62 is purpose-designed for ceiling mounted under balcony applications and is available only as an installation model.)

MODEL	FREQ (Hz)	DISPERSION (degrees)	PROG. PWR (watts)	SPL RATING (Prog/peak)	WxHxD (inches/centimeters)	WEIGHT (lbs./kg)
TRX61	80 TO 20K	150°H by 60°V	120	111 / 114 db	7.75 x 15.5 x 8 / 19.7 x 39.4 x 20.3	13 / 5.9
TRX62H	70 TO 20K	150°H by 60°V	400	116 / 119 db	20 x 7.5 x 9 / 50.8 x 19 x 22.9	21 / 9.5
TRX81/9	80 TO 20K	90°H by 60°V	140	117 / 120 db	9.75 x 19.75 x 9 / 24.8 x 50.2 x 22.9	25 / 11.3
TRX81/12	80 TO 20K	120°H by 60°V	140	117 / 120 db	9.75 x 19.75 x 9 / 24.8 x 50.2 x 22.9	25 / 11.3
TRX82/9	60 TO 18K	90°H by 60°V	400	123 / 126 db	9.75 x 28.5 x 9 / 24.8 x 72.4 x 22.9	32 / 14.5
TRX82/12	60 TO 18K	120°H by 60°V	400	123 / 126 db	9.75 x 28.5 x 9 / 24.8 x 72.4 x 22.9	32 / 14.5

12 AND 15 INCH NEAR FIELD AND MID FIELD LOUDSPEAKERS

TRX121

With rotatable Complex Conic horns and high power woofers in multi-angle/multi-function enclosures, the TRX121 and TRX151 offer exceptional performance and great versatility. Whether used as portable floor monitors or installed sound reinforcement loudspeakers, these "workhorse" designs deliver thoroughbred performance for clubs, houses of worship and rental companies. Both include passive crossovers and are available in either portable or installation models with a wide range of options and finishes.

MODEL	FREQ (Hz)	DISPERSION (degrees)	PROG. PWR (watts)	SPL RATING (Prog / peak)	WxHxD (inches / centimeters)	WEIGHT (lbs. / kg)
TRX121/9	65 TO 18K	90°H by 60°V	700	126 / 129 db	14.25 x 23 x 13 / 36.2 x 58.4 x 33	34 / 15.4
TRX121/12	65 TO 18K	120°H by 60°V	700	126 / 129 db	14.25 x 23 x 13 / 36.2 x 58.4 x 33	34 / 15.4
TRX151/6	50 TO 18K	60°H by 40°V	800	127 / 130 db	17.25 x 29.25 x 14.5 / 43.8 x 74.3 x 36.2	53 / 20
TRX151/9	50 TO 18K	90°H by 40°V	800	127 / 130 db	17.25 x 29.25 x 14.5 / 43.8 x 74.3 x 36.2	53 / 20

12 AND 15 INCH "TRAP" MODULES

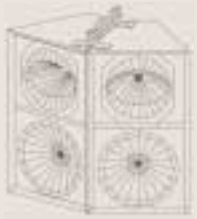
The trapezoidal TRX121T and TRX151T feature larger Complex Conic horns than the TRX121 and TRX151 and offer tighter pattern control. The horns in the TRX121T can be rotated to create true TRAP (True Array Principle) array modules that combine into arrays with an absolute minimum of lobing. The result is near perfect array performance right out of the box. The TRX151T/4 with its 40 degree horizontal coverage is a true TRAP module.

TRX121T

MODEL	FREQ (Hz)	DISPERSION (degrees)	PROG. PWR (watts)	SPL RATING (Prog/peak)	WxHxD (inches/centimeters)	WEIGHT (lbs./kg)
TRX121T/6	65 TO 18K	60°H by 40°V	500	126 / 129 db	15.25 x 26.5 x 13.75 / 38.7 x 67.3 x 34.9	40 / 181
TRX121T/6	65 TO 18K	90°H by 40°V	500	126 / 129 db	15.25 x 26.5 x 13.75 / 38.7 x 67.3 x 34.9	40 / 181
TRX151T/4	50 TO 18K	40°H by 40°V	700	127 / 130 db	18.75 x 29.5 x 47 / 47.6 x 74.9 x 47	59 / 26.8
TRX151T/6	50 TO 18K	60°H by 40°V*	700	127 / 130 db	18.75 x 29.5 x 47 / 47.6 x 74.9 x 47	59 / 26.8
TRX151T/9	50 TO 18K	90°H by 40°V*	700	127 / 130 db	18.75 x 29.5 x 47 / 47.6 x 74.9 x 47	59 / 26.8

*The horns the in TRX151T/6 and TRX151T/9 cannot be rotated.

T12 (TRX121T) AND T15 (TRX151T) REFERENCE POINT ARRAYS


TRX12/6-2(T)

An RPA is a complete, integrated electro-acoustic system. Loudspeakers, electronics, R-Hang mounting hardware and interconnecting cables are fully assembled and tested before the array leaves our factory. At the job site, all you need to do is to put it into place and plug in the cables. Then turn on the power and enjoy flawless array performance.

Each loudspeaker in an RPA is a 40 degree TRAP (TRue Array Principle) module, combining seamlessly with its adjacent loudspeaker. System Specific Electronics are precisely adjusted for proper phase alignment and uniform response across the entire frequency range, as well as long term reliability.

A T12 or T15 RPA (Reference Point Array) provides higher output and wider horizontal coverage than a single loudspeaker, yet is almost as easy to install.

MODEL	FREQ (Hz)	DISPERSION (degrees)	PROG. PWR (watts)	SPL RATING (Prog / peak)	WxHxD (inches / centimeters)	WEIGHT (lbs. / kg)
TX12/6-2(T)	65 TO 18K	80°H by 60°V	1000	130 / 133 db	29 x 26.5 x 16.5 / 73.7 x 67.3 x 41.9	90 / 40.8
TX12/6-3(T)	65 TO 18K	120°H by 60°V	1500	130 / 133 db	39.25 x 26.5 x 17.5 / 99.7 x 67.3 x 44.51	138 / 62.6
TX12/6-4(T)	65 TO 18K	160°H by 60°V	2000	132 / 135 db	45.5 x 26.5 x 21.5 / 115.6 x 67.3 x 54	184 / 83.5
TX15/6-2(T)	50 TO 18K	80°H by 40°V	1400	131 / 134 db	35.5 x 29.5 x 21.5 / 90.2 x 75 x 54.6	128 / 58.1
TX15/6-3(T)	50 TO 18K	120°H by 40°V	2100	132 / 135 db	48 x 29.5 x 22.25 / 121.9 x 75 x 56.5	195 / 88.5
TX15/6-4(T)	50 TO 18K	160°H by 40°V	2800	133 / 136 db	55.5 x 29.5 x 26.75 / 141 x 75 x 68	260 / 118

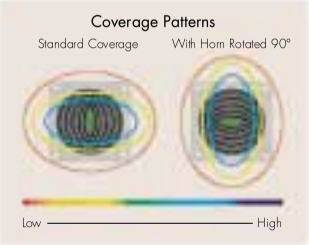
MATCHING SUBWOOFERS

Renkus-Heinz also offers an extensive line of both powered and non-powered 12", 15" and 18" subwoofers. For details, check out our free configurator software or our website www.rh.com.

ROTATING HORNS

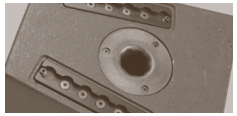
TRX Series Complex Conic horns can easily be rotated 90 degrees within the enclosure, allowing the loudspeaker to be mounted either horizontally or vertically. We'll do this at our factory at your request, or you can rotate the horn in the field to accommodate unexpected installation changes simply, cost effectively and conveniently.

In portable systems, you can use TRX Series loudspeakers as floor monitors one night and on tripod stands the next, just by rotating the horn.



PORTABLE OPTIONS

All portable TRX models include tripod sockets and looping (in and out) Neutrik 4-pin Speak-on connectors. Handles are also provided, except for the ultra-compact TRX61, TRX62 and TRX81 models.



INSTALLATION OPTIONS

Installation models are normally provided with twelve 1/4-20 attachment points which allow the enclosures to be easily flown in any plane using eye bolts.

For wall or ceiling mounting applications, either U-brackets or Omnimount nut-plates and mounting hardware are available for the smaller TRX61, TRX62, TRX81 and TRX82 models.

WEATHER RESISTANT

TRX loudspeakers are also available with weatherized woofer cones and connectors, in weather resistant fiberglass or Tuffex Elastomer finishes that are practically impervious to the elements.

FINISHES

The standard TRX Series finish is flat black. Optional finishes include white, "natural" ready-to-stain (sanded, unfinished), black carpet, or custom colors.

Renkus-Heinz's free System Configurator Software takes the guesswork out of ordering single loudspeakers or loudspeaker arrays. The software walks users through each order, clarifying options that are available, and ensuring that when Renkus-Heinz receives the order it is complete and accurate. You can request your free copy of the Renkus-Heinz System Configurator, a browsable CD ROM catalog by phone or through our website at www.rh.com.

SYSTEM SPECIFIC ELECTRONICS

FASTER SETUP, SUPERIOR PERFORMANCE, LONG TERM RELIABILITY.

SYSTEM SPECIFIC ELECTRONICS

System Specific Electronics are optimized at the factory to maximize the performance of single TRX Series loudspeakers or multi-element Reference Point Arrays. For Renkus-Heinz it's a time-consuming, data-intensive process, but the results are worth it – to the designer, the installer, the operator, and most of all the listeners.

Loudspeaker Specific Processor Modules plug in to our P Series System Specific Power Amplifiers and X Series rack-mount analog controllers. They can be configured for anything from "last resort" limiting (tied to amplifier output, so it cannot be "fooled" by adjusting input controls) to complete loudspeaker output protection and optimization. P Series amplifiers deliver from 350 to 1200 W/ch.

The D26A Digital Controller is a two-in, six-out processor with comprehensive EQ, crossover, delay and limiting functions. The D26A can be controlled via MIDI from SMAART LIVE's dual-FFT EQ window, making it an ideal tool for system commissioning and tuning functions such as EQ and delay. X Series rack mount controllers use high performance analog components for reference quality signal processing.

AMPLIFIER MODEL	WATTS/CH 8 OHMS	WATTS/CH 4 OHMS	BRIDGE MODE POWER
P2400	250	350	700 W @ 8 Ohms
P2700	350	500	1000 W @ 8 Ohms
P2850	500	750	1800 W @ 4 Ohms
P2950	800	1200	3200 W @ 4 Ohms
P3500	500	750	1500 W @ 4 Ohms
P3501	500	750	1500 W @ 4 Ohms

R-CONTROL REMOTE SYSTEM SUPERVISION

The R-Control Remote System Supervision Network is based on Echelon's LonWorks® protocol (ANSI/EIA standard 790.1) and programmed in Microsoft Visual Basic.® Real-time impedance monitoring, Event Scheduler, Fault Logger and Scene Store/Recall make R-Control a powerful tool for remote management of installed or portable sound systems.

Working together, there's no problem we can't solve, no schedule we can't meet, no project we can't take to a higher level of excellence, from the White House to the Olympic SuperDome, from corner churches to major metropolitan concert halls. Much as we love technology, our greatest satisfaction comes through helping people communicate through music, dance, theater, or the power of a new idea brilliantly expressed. When we make those kinds of connections, there's nothing more exciting – or more powerful.

Here are some of the unique technologies we use to help people communicate:

- Patented CoEntrant Topology integrates midrange and high frequency drivers into wideband point sources.
- Complex Conic Topology, the first new approach to horn design in decades, has proven its superior performance worldwide.
- TRAP (TRue Array Principle) design aligns acoustic centers so loudspeaker clusters produce coherent output.
- Reference Point Array engineering optimizes the entire signal chain from line level to listener for unprecedented performance.
- System Specific Electronics integrate pre-configured signal processing and protection with high performance amplifiers.
- The R-Control Remote System Supervision Network is based on Echelon's LonWorks® protocol (ANSI/EIA 709.1).
- PowerNet Series loudspeakers incorporate System Specific Electronics and can be upgraded for R-Control remote operation.
- EASE, EASE JR and EARS are the industry standard modeling programs for acoustic environments and sound system performance.

For more information on the latest integrated sound reinforcement innovations from R-H Engineering, visit us on our website. www.rh.com.

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