

The Starting Lineup

PRODUCT BOOKLET

TRANSPARENCY

DETAIL

DYNAMICS

SOUNDSTAGING

You could almost

forget that

diffraction

and

baffle bounce

were ever an issue.



R645

NHB45

R630

R58

NFR

Newform Research loudspeaker systems are built around our unique new Ribbon technology. The Ribbons come in different sizes, with different sensitivities and different output capabilities. However, the basic transparency, detail and soundstaging focus remains consistent from model to model.

Our speakers are not designed to hit price points but to serve specific purposes. Broadly speaking, half of the speakers produce substantial deep bass while the other half require subwoofer support. Some models have very high output capabilities, sufficient for the largest domestic listening rooms. Some are more suitable for quite small rooms. This model offering is designed to ensure that whether played loudly or softly, in large rooms or small, the fundamental characteristic of openness and detail is delivered to the listener.

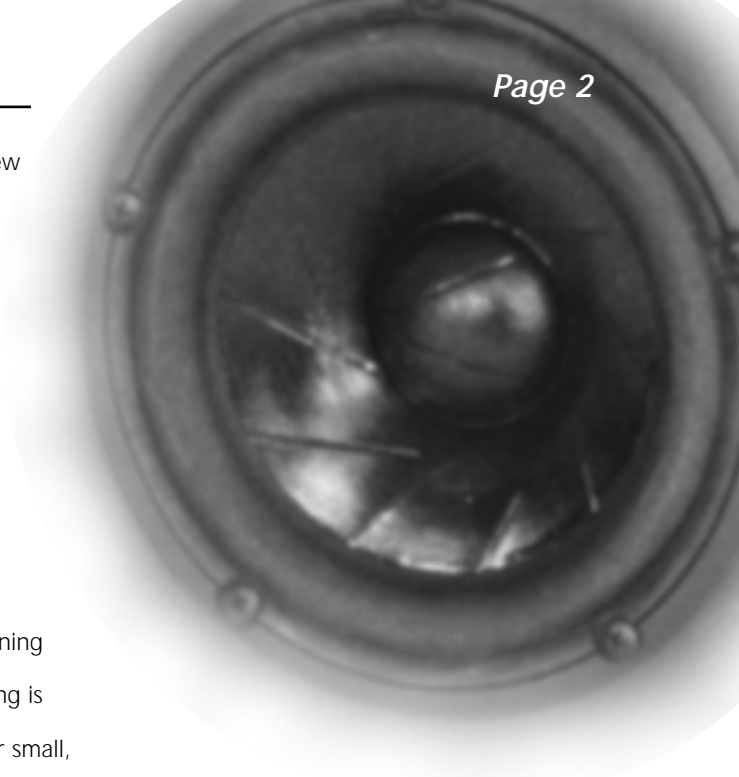
Newform Research Ribbon loudspeakers are far from cheap but in traditional audiophile terms, they are vastly less expensive than their acoustic competition. The prices of Newform loudspeakers reflect a considerable technological advance coupled with genuine factory direct pricing. Consequently, the range of speakers listed here is designed to fit your application, rather than a progressive range of budgets.

Selecting the right Ribbon system for you is not so much a matter of comparing models as it is understanding clearly your listening room requirements and your own personal preferences.

Since very few Newform designs show up in the used market and even fewer are returned, chances are extremely good that we have a model which will make you very happy for a very long time.

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R58

The R58 is our smallest model with a free standing ribbon. Soundstaging and detail are very close to the finest available. It performs superbly as a centre channel or surround and for smaller high quality systems in small rooms it excels. The R58 boasts a ScanSpeak 5" Revelator mid-bass - simply the finest made- and the R8 Ribbon. It is a mid size monitor.

SUGGESTED SYSTEM

The R58 offers the maximum soundstage in the minimum size. When used with smaller systems in small rooms a sub is not necessary unless used for high volumes or home theatre. It is a medium sensitivity speaker but a very easy load for any amplifier to drive.

SUGGESTED PLACEMENT

The more air the R58s have the better the depth of the soundstage will be. It is recommended that they be placed out from the wall on stands for improved depth.

FUTURE SYSTEM GROWTH

A stereo pair can grow into a 4 or 5 channel system. They can be moved to the rear when larger Ribbon systems are used for the Fronts.

SPECIFICATIONS

Finish	Black Simulated Oak
Dimensions (H x W x D)	23" x 7" x 14" (58.4 cm x 17.5 cm x 35.5 cm)
Weight	28 lbs. (12.7 kg)
Frequency Response	45 - 20 kHz +/- 3 dB
Sensitivity	86 dB
Impedance	8 ohms
Power Handling	min. 30 watts/channel max. 125 watts/channel
Assembly time	none



R530

The R530 is a Module 30 configuration with the best mid-bass driver (ScanSpeak Revelator W15) on the planet in a deeper, heavier enclosure. The R530 has superb transparency, dynamics and mid-bass speed. It is also amenable to a very low crossover to a sub, in the region of 45Hz. For smaller rooms in a non-video application, a subwoofer might not even be necessary. For rear channels with no need for a rear sub.

SPECIFICATIONS

Finish	Black Simulated Oak
Dimensions (H x W x D)	57" x 7" x 14" (144.8 cm x 17.5 cm x 35.5 cm)
Weight	58 lbs. (26.3 kg)
Frequency Response	40 - 20 kHz +/- 3 dB
Sensitivity	86 dB
impedance	8 ohms
Power Handling	min. 30 watts/channel max. 125 watts/channel
Assembly Time	15 minutes. Bases must be attached.



R630

The R630 adds to the list of classic 830 attributes even greater mid-bass transparency. This increase in detail and neutrality comes courtesy of the famous ScanSpeak 8545 carbon fibre pulp cone 6 1/2" mid-bass used in numerous mega dollar loudspeakers. For once, a high end audio component richly deserves its glowing reviews. The 630 gives up some bass dynamics to the 830 but is just fine for smaller rooms. However, the majority of users will want a very good subwoofer with the 630 since it can operate solidly into the low 30s and can be crossed over below 50Hz

SUGGESTED SYSTEM

A sub is not required unless used for very high volume stereo or for home theatre or in a large room.

SUGGESTED PLACEMENT

The more air the model 630s have to work with the better the soundstage depth.

FUTURE SYSTEM GROWTH

A stereo pair can provide an excellent anchor for the front of a 4 or 5 channel system. Our smaller Ribbons can cover the remaining 3 channels.

SPECIFICATIONS

Finish	Black Simulated Oak
Dimensions (H x W x D)	61" x 8 1/4" x 14" (154.9 cm x 221 cm x 35.5 cm)
Weight	68 lbs. (30.8 kg)
Frequency Response	36 - 20 kHz +/- 3 dB
Sensitivity	88 dB
impedance	8 ohms
Power Handling	min. 20 watts/channel max. 150 watts/channel
Assembly Time	10 minutes



R645

The R645 is the ultimate embodiment of the classic 2 way philosophy. In terms of sound quality, the 645 maintains the neutrality and transparency of the 630 and adds considerably more dynamics over the entire bandwidth. The 645 will light up virtually any domestic listening room with a good 100 watt amp and do surprisingly well with 10 watts. Why purchase the 645 over the 630? Higher dynamics, higher sensitivity and greater listening height. Of course, a subwoofer can be added to the 645s but you may never feel the need for one. If you do decide on a sub, it will have to be a very, very good one to improve noticeably on the bottom end performance of the 645s.

SUGGESTED SYSTEM

In most average sized rooms a sub is not required unless used for organ music in stereo or for video.

SUGGESTED PLACEMENT

The more air the the R645s have to work with the better the soundstage depth. Out front in a acoustically symetrical rectangular room, revel in a superb soundstage.

FUTURE SYSTEM GROWTH

A stereo pair can provide an excellent anchor for the front of a 4 or 5 channel system. Our smaller Ribbons can cover the remaining 3 channels.

SPECIFICATIONS

Finish	Black simulated Oak
Dimensions (H x W x D)	76" x 8 1/4" x 14" (193 cm x 21 cm x 35.5 cm)
Weight	102 lbs. (46.3 kg)
Frequency Response	33 - 20 kHz +/- 3 dB
Sensitivity	91 dB
impedance	8 ohms
Power Handling	min. 20 watts/channel max. 250 watts/channel
Assembly Time	20 minutes



The R45 Ribbons weigh 46 pounds each so a well thought out approach is recommended. Bases must be screwed on before the Ribbons are attached!

NO HOLDS BARRED

The NHB Essential represents a fusion of high end audio and video requirements. Soundstaging, dynamic range, transparency and smoothness combine for a world class loudspeaker system. As the Audio Ideas Guide noted "... I was impressed by the great openness and immense dynamics this system could produce, with no colouration whatsoever in the Ribbon's response area above 1 kHz (below that it was more room dependent) there was complete absence of any sense of compression or strain. ...the NHB system combines very high audio fidelity, including fabulous image depth, with the power handling (300 w/ch) and SPL capability (92 dB @ 1w,1m) required for realistic soundtrack reproduction."

No Holds Barred Essential consists of dual stacked R30s per side with Peerless 5" dual mid-basses in 1" MDF enclosures.

SUGGESTED SYSTEM

NHB can be used for any home application whether pure audio or home video. Phone or fax us to discuss it. Requires a first class subwoofer.

SUGGESTED PLACEMENT

The more air the they have the better the soundstage depth. NHB is a major commitment so plan on allowing at least 3 feet out from the front wall and 3 feet from the sides.

FUTURE SYSTEM GROWTH

A stereo pair constitutes a world class audio system and can also serve as the foundation of an unsurpassed home theater system. The tallest deepest and most focused soundstage in the business. Nothing else on the market has the height or this small an acoustic profile to produce this large and focused a soundstage. NHB delivers the full involvement of the largest panel speakers without the Stonehenge appearance.



NO HOLDS BARRED 45

NHB 45 combines dual ScanSpeak Revelator 5" mid-basses with the R45 Ribbon. For unmatched transparency combined with heavyweight dynamics, this is it. For smaller rooms in a non-video application a subwoofer probably won't be needed. The W15 moves as much air as most good 6 1/2" drivers. Although it doesn't look at all like it, this is the spiritual successor to the Quad electrostatic.

SPECIFICATIONS

Finish	Black Simulated Oak
Dimensions (H x W x D)	73" x 7" x 14" (185.4 cm x 17.5 cm x 35.5 cm)
Weight	98 lbs. (44.5 kg)
Frequency Response	36 - 20 kHz +/- 3 dB
Sensitivity	91 dB
impedance	6 ohms
Power Handling	min. 20 watts/channel max. 200 watts/channel
Assembly Time	20 minutes. Bases must be attached.

Coming: NHB ULTRA with dual R45s.

The ultimate in tunable excellence for rooms with 9'+ ceilings and 350+ sq.ft.



R30

SPECIFICATIONS

Frequency Response:	1.0k - 20kHz +/- 3dB
Normal Power:	60watts RMS, System Power: 200watts
Sensitivity:	88dB @ 1w, 1m
Impedance:	7ohms flat line
Recommended Lowest Frequency:	950Hz
Capacitor Value to Obtain Lowest Recommended Frequency:	8uf
Height:	30.8"
Width:	3.3"
Depth:	2.5"
Weight:	24lbs
Termination:	5-way gold plated binding posts

Recommended Uses: any 2 way system with a woofer smaller than 8". In-wall custom installations. Any corner channel of a Dolby Digital system. Small to medium permanent sound reinforcement systems stacked in-line source arrays. Give them air for a truly superb soundstage.



R45

SPECIFICATIONS

Frequency Response:	1.0k - 23kHz +/- 3dB
Normal Power:	80 watts RMS, System Power: 250 watts
Sensitivity:	91dB @ 1w, 1m
Impedance:	4.7 ohms flat line
Recommended Lowest Frequency:	950Hz
Capacitor Value to Obtain Lowest Recommended Frequency:	12uf
Height:	45.8"
Width:	3.6"
Depth:	2.8"
Weight:	44 lbs
Termination:	5-way gold plated binding posts

Recommended Uses: any 2 way system with a woofer smaller than 8". In-wall custom installations. Any corner channel of a Dolby Digital system. Small to medium permanent sound reinforcement systems stacked in-line source arrays. Give them air for a truly superb soundstage. Typical listening room size is 250 sq.ft. or larger.



THE RIBBONS THEMSELVES

A good design eliminates the great majority of engineering problems. A well thought out selection of drivers can operate at their best with a very simple crossover, eliminating the need for a complex, costly and, ultimately, sonically inferior network. A narrow enclosure can minimize diffraction which will maximize soundstage depth and focus. Our enclosures are as narrow as they can be made. From 1.5kHz up, they are only as wide as the Ribbon structure itself (3") and heavily beveled as well. In a conventional loudspeaker system, the dome tweeter is on the same baffle width as the woofer. Therefore, from 5 kHz and up, the sound wave along the baffle must bounce at least twice before it encounters the 90 degree side of the enclosure where it suddenly drops off. Reflection, discontinuity and frequency variability: exactly the things that degrade the coherence of the soundstage. These design problems cannot be eliminated even with the application of very expensive solutions. Newform systems have the smallest acoustic profile of any speakers on the market. Is it any wonder that our soundstaging capabilities are unsurpassed?

The R30 has excellent depth of soundstage and dynamics. When doubled up in a No Holds Barred alignment, it will deliver sufficient SPLs for any home application from a good 100 watt amp. Use with mid-bases of up to 8" and amps from 10 to 150 watts per channel for the system. With stacked R30s, the rating goes to 300 watts per channel but you won't need more than 100 watts for the entire system. If considering stacked R30s, note that they can be mounted from a simple bar bracket attached to a ceiling beam. The NHB articulated arm wall bracket or stand can also be used.

The R45 addresses the issues of sensitivity, vertical coverage and dynamics demands in excess of what the R30 can provide. For those people who like to walk while they listen, have very large rooms or very low powered amps, the R45 fills the bill. They will also play as loudly and as cleanly as an individual will likely want to experience in a domestic system.

All Newform Ribbons are finished in low gloss black epoxy powder coat. This handsome and durable finish can be cleaned with water, alcohol or small amounts of varsol. All Ribbons come with 5 way binding post connectors except the R8 which has bare wire connectors. The Ribbons are heavy and should be handled and mounted with great care. The R30 weighs close to 25 pounds (11 kg) without its bracket. Clearly, you must plan to support the dual R30 stack very solidly. For reference, a 40 oz magnet 12" woofer weighs approximately 6lbs. Crossovers for all of the Ribbons take the form of single capacitors for a 6dB electrical slope. Acoustically, the rolloff below 1kHz is much steeper. The capacitors roll the Ribbons off electrically at a much higher frequency than the acoustic crossover point because the Ribbons have a rising response the lower in frequency they go. The capacitor flattens this response and finally aids in the acoustic rolloff. Many builders have kept a capacitor in the circuit even when they employ an electronic crossover with very high slopes to cut off response at their chosen frequency.

Ribbons come complete with brackets, mounting hardware and low loss, low noise, capacitors. The brackets are generally mounted on the bottom of the top of the enclosure and protrude through a slot in the top for a clean appearance. To aid in arrival time optimization, it is common practice to first mount the bracket and Ribbon on a board which can be slid back and forth in relation to the mid-bass voice coil to achieve the ideal vertical alignment for the seated ear height in that particular room.

TIPS For Installers and Kit Builders

- keep the Ribbons in free air.
- keep your crossovers as simple as possible.
- keep the crossovers outside the enclosure to allow for easy upgrading to the direct digital chain.
- make the crossover point to the sub as low (40 to 60Hz) as possible.
- maintain the line source profile. Keep the mid-bass enclosure as narrow as possible.
- keep the Ribbon close to the mid-bass driver.
- every time you change a crossover slope, don't be afraid to reverse the Ribbon polarity. With different drivers and different slopes, you can only guess at acoustic phase, don't even try to calculate it. Experiment, and rely on your ears.

KITS

We sell very few set kits. Some people want to duplicate our standard production systems in their own cabinets. Most builders like to experiment with different woofer/crossover combinations, perhaps in other types of cabinets of their own design. Whatever your objectives and whatever your approach, we will help you with your system planning. Call and we can discuss your project. Although our Ribbons have been used as add-ons for some large panel speakers, when thinking about your project, think in terms of a simple system that can outperform the classic electrostatics and Ribbons in many areas. Don't use the Ribbons merely as dome replacements. Make use of their full palette of talents and integrate your system with their capabilities because they are the heart of the system. If you want the world class results that Newform Ribbons can deliver, design around the Ribbons' capability and KEEP IT SIMPLE.

SET-UP

The terminal plate is made of thick, non-resonant plastic and the all metal hex nut, 5 way binding posts are gold plated. Should you bi-amp, the mid- bass is connected to the lower binding posts and the Ribbon is attached to the upper pair. Remove the ground straps when bi-amping or bi-wiring.

The Ribbon attaches to the Bracket by means of 2 10-24 plastic collared screws which, after they have been screwed into the back of the Ribbon, fit through the lower keyhole slots. One 5/16" -18 shoulder bolt is screwed into the slot at the top of the bracket after the lower screws are in place. There is no need to tighten the lower screws as they are there for support and alignment only.

Newform uses Peerless and ScanSpeak drivers for mid-bass applications. These drivers are excellent in the bandwidth (below 1kHz) in which we use them. They are very consistent with a negligible line test failure rate and they have proven to be extremely reliable for our customers.

Cone breakup, beaming, diffraction, dynamic compression, processing errors, amplifier non-linearities due to highly variable and low impedance loads are a few of the major problems that can be minimized when wide bandwidth drivers are used within their natural ranges. The rewards are superb soundstaging, transparency and smoothness. If you don't smile when you play your favourite discs, you have made the system too complicated. Newform Research Ribbons provide the openness, transparency, smooth frequency response and wide bandwidth necessary to form the foundation of a true high fidelity system be it 2 or 4 or 5 channels. Set up first for soundstage and then fine tune the bass.

WHO BUYS NEWFORM RESEARCH RIBBON SYSTEMS?

Almost half of our customers have owned one or more pairs of the classic planar designs. Over the years, Magneplanars, Martin-Logans, Apogeess and Quads have produced audio magic for their owners with transparency and detail that box/dome loudspeakers simply cannot match. Once exposed to this kind of musical experience most planar owners find it impossible to go back to conventional loudspeakers.

Many of them move to Newform Research Ribbons because they want the openness and musicality of their beloved panels in narrower profiles that are easier to drive and set up in a room. Improved dynamics, broader horizontal dispersion and excellence in home theater applications are also high priorities.

Less experienced users can now step up to the plane of higher transparency without having to pay the penitence of setup idiosyncrasies, reliability concerns, head-in-a-vice listening positions, dynamic limitations and expensive amplifier requirements. Musical magic now carries far less of a price.

A LAST WORD ON THE TECHNICAL FUTURE OF LOUDSPEAKERS

Wondering where loudspeaker design is going? The following is a quote from the latest Newsletter (Volume 6, Issue 1, Spring 1999) from ALMA (American Loudspeaker Manufacturers Association).

“There is increasing consensus in the loudspeaker industry that ideal loudspeaker performance includes flat amplitude response on axis and across the horizontal plane, combined with tightly controlled vertical high frequency amplitude response. Such performance permits structurally accurate early reflections in conventional playback rooms, which in turn enhances both the perceived timbres of reproduced sounds and also the phantom images and perceived reverberance and spaciousness in recordings. Constrained vertical dispersion reduces high and mid-frequency interference effects that arise from early floor, ceiling and console reflections, which have been found to destabilize imaging and degrade timbres.”

No loudspeakers on the planet have narrower vertical dispersion nor broader and more even horizontal dispersion than Newform Ribbon Systems.

The above quote exactly describes Newform's design philosophy. It seems that the audio industry as a whole is finally coming to see the loudspeaker and the listening room as we have for the past 12 years.

A LAST WORD ON THE MUSIC FUTURE

The loudspeakers which fit your room best and place the least limitation on the type of music played regardless of future audio formats are the loudspeakers which will deliver the greatest musical satisfaction over the long term. Newform Research loudspeakers will continue to deliver great musical satisfaction for many years after the glow of their extremely competitive prices has faded.

