

Newform Research

presents:

Version 3 of the R630 and R645 Ribbon Loudspeakers

The most radical upgrade since the Version 1s
were designed 8 years ago.

Many people have said our Ribbon speakers produce the finest high end in audio. Obviously, we don't take issue with those statements and for the third generation of the R630 and R645, we have elevated the already excellent performance of our midbass systems to a level of musicality approaching that of our Ribbon drivers.

For the v3s, we have stayed with the superb ScanSpeak carbon fibre pulp coned 7" midbass. Made in Denmark, these midbass loudspeakers offer excellent bass reach and transient response and have proven to be virtually bulletproof in the field. Many high end loudspeaker manufacturers feel as we do, using the ScanSpeak in their finest designs, very few of which are sold below the \$5000 level.

R645v3

The R645v3, uses two ScanSpeak 7"s and our highly regarded R45 Ribbon driver in a classic 2 way design.

The R645v3 is the best loudspeaker Newform Research currently makes. It offers slightly greater transparency than the R630v3 along with higher sensitivity, deeper bass reach and increased dynamics.. Its 76" height allow people to move about the room and still listen critically.

With it's large wide dispersion monopole Ribbon, long throw ScanSpeak midbasses and superior cabinet design, the R645v3 can produce an incredibly broad, deep and focussed soundstage. As a large but very accurate air pump, the 645 can re-create the extreme dynamics, fine detail and transparency that are the key to true musicality.

At \$3484 Cdn. (\$2971 US) per pair at your door, the R645v3 delivers world class fidelity with the dynamics, coverage and bass reach of no other planar design.

From a stereo pair to the fronts of a great home theater system, the R645v3 will light up just about any listening room.

R630v3

The R630v3 is a very simple loudspeaker system. It features a single ScanSpeak midbass and our R30 Ribbon.

The R630v3 can be used in virtually all rooms in most ranges of systems from pure stereo in a dedicated music system to full surround sound in a large home theater. Because of its considerable bass reach, the R630v3 would only need the low frequency output augmentation of a subwoofer in a stereo system in a very large room or in a home theater installation.

At \$2480 Cdn (\$2116 US) per pair delivered, the R630v3 delivers superior high end fidelity at a bargain basement price. As with all Newform Ribbon loudspeakers, superb results can be achieved with a wide range of tube and solid state electronics.

Please call or e-mail us for a discussion of your equipment, your room and your system plans.

Demo System
Newform Research R645v3
Dolan Audio pre-amp
Dolan Audio mono blocks



Why is a 2 way design important?

Why is a two way system so desirable? In a word, simplicity. A well executed 2 way eliminates the complexity of adding a midrange driver with its associated dispersion, phase, and crossover problems. The low crossover point of our unique Ribbon drivers allow a full range system that delivers the full musical spectrum without the off-axis upper midrange suck-outs typically found in two way dome tweeter systems

Why is the Cabinet important?

The job of a speaker cabinet is to contain the rear wave of the midbass driver so that it does not cancel the front wave. In doing so, the cabinet should not contribute any sound of its own or introduce radiation anomalies as the front wave from the diaphragm moves around the cabinet sides. If the walls move, they create detail obscuring noise. A speaker cabinet should not perform like a violin body! The cabinet with the best damping of the back wave, the best damping of the walls (to minimize "wall talk") and the lowest diffraction will do the best job of getting out of the way of the music.



New Cabinets

The cabinet changes from the Version 2 R645 are quite significant. We have gone to a sealed enclosure from the ported configuration. This has improved transient response in the midbass as well as the pitch definition of the bottom end.

At higher volumes a sealed enclosure will "hang together" better than a ported configuration reducing unwanted oscillations of the diaphragm and breathing noises from the port itself. A sealed enclosure is also much easier to equalize for a better room response and it generally presents a slightly easier load for the amplifier to drive. Obviously sealed enclosures have fewer placement issues given that clearance around the port no longer has to be considered.

In going to a sealed enclosure, we have taken the opportunity to completely overhaul the construction of the bass enclosure. In a word, it is a vast improvement over most of the speaker cabinets high end or otherwise on the market. The v3 speaker cabinet is extremely rigid, well damped inside and highly acoustically streamlined on the outside to reduce diffraction to the minimum. It features a very attractive look with a solid surface top.

Now, with even greater transparency due to the addition of very sophisticated internal wall damping, bracing, backwave absorption and diffraction minimization (be sure to TAKE THE GRILLS OFF for critical listening) these classic loudspeakers stand still further ahead of the field.



R630v3 and R645v3 Cabinet Attributes

The R630v3 and the R645v3 speaker cabinets have been quite heavily upgraded. The objectives were to improve bass pitch definition, midbass transient response and reduce diffraction effects. These new cabinets meet their design targets very successfully but, as you can see, they are far from simple to construct!!

Features of the new cabinets:

- heavy shelf bracing using void free Baltic Birch plywood
- complete diagonal wall bracing (Baltic Birch)
- damped wall surfaces (3 layer damping pads)
- damped air volume (acoustic foam)
- damped cross braces
- decoupling mat on top and bottom of cabinet
- solid surface Corian top
- seamless, large radius vertical edges

Newform Research's unique Ribbon technology uses a thin film diaphragm driven over its entire surface to produce frequencies from 1,000Hz up to 20+kHz. It is a wide dispersion, monopole, minimal diffraction driver which eliminates ceiling and floor reflections. Given its large radiating area (> 30 dome tweeters) and high, non-reactive impedance, it possesses superb transient response and great dynamics and can be driven well by any amplifier on the market.

