

# Meniscus Audio

*September*  
2008 Catalog



**W**elcome! Although Meniscus Audio began over 20 years ago, it really all started the day my father showed me (his 13 year old son) his collection of speaker parts. I immediately set out to create something\* that would “Rock & Roll” and have a lot of fun along the way!

For first time builders, we would be happy to get “you” started by answering any questions or recommending a kit or combination to get you confidently on your way.

For avid kit builders, we have been working hard on a new line of kits that will be featured in a separate catalog due the end of the year. Until then, we can provide you with some details or suggest many of the factory kits. The Web hosts a vast selection of kits from all over the world and we’d be happy to supply you the parts and advice on these as well.

For those who can’t build just one and are able to do their own designs, we have vast supply of drivers, crossover components, accessories and measurement equipment to satisfy the most prolific speaker builder.

Feel free to contact us anytime:  
Monday - Friday 9-5 EST  
616-534-9121

email: [info@meniscusaudio.com](mailto:info@meniscusaudio.com)  
Fax: 616-534-7676  
Web: [www.meniscusaudio.com](http://www.meniscusaudio.com)

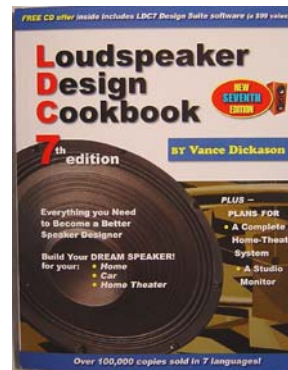
\*This speaker still lives. An 8” Jensen full range housed in a tower cabinet constructed of Celotex and painted in patriotic Red, White, & Blue.

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Check our web site for the most current products, specials and updated prices.

**New!** Written for the beginning hobbyist, this comprehensive book By Ray Alden explains clearly and simply the parameters, compromises, and choices of loudspeaker design. The book shows 11 completely designed speaker systems including a 5.1 home theater system. **\$30.00**



Need more substance? For those who have read beginners books and crave more, the Loudspeaker Design Cookbook is the single best reference to speaker building. 12 Chapters include: closed, vented, PR, and T/L boxes, passive and active crossovers, testing, and designs for home theatre and monitor kits. New 7<sup>th</sup> ed. Now, only **\$35.00**

# Speaker Accessories



**SD-Cup ..... \$3.95**  
All gold, 5-way binding posts 3-1/8" square with 2-5/8" cut out. Includes back gasket.



**RD-Cup ..... \$3.50**  
As above but 3" dia cup with 2" dia cut out.

**TD-Cup ..... \$8.75**  
Like the SD-Cup, but with two sets of posts for bi amp or bi wire. 3-3/4" Multi-Contact Post, Red & Blk pair ..... **\$5.25**  
Direct through cabinet, gold banana jack. Made in Germany.



**Premium Big Post/pr ..... \$8.75**  
1 pair, blk & red, 5-way gold posts with 33mm" shaft for direct through cabinet wall. See web site for photo of new version.

**Small Post/pr ..... \$2.75**  
1 pair blk & red 5 way post with 1/2" shaft for plastic or metal plates. Insulator on request.

**RCA female/pr ..... \$7.00**  
1 pair, blk & red panel mount RCA, gold / Teflon with insulator and solder tab.



**Standard M&F.. \$0.25**  
7/16" hole for male and 9/16" hole for female

**Peg type M&F ... 0.25**  
(not pictured, see web

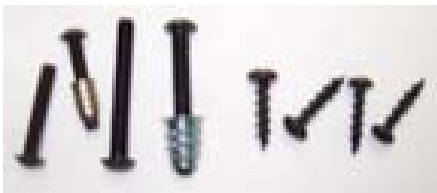
site) for thinner frames

**Velcro coin, 1/2" dia ..... 0.25**  
Hook & Loop (Not pictured)

## Grille cloth

Acoustically transparent, stretchable, 66" wide and sold by the running foot. Color samples on request.

**Black ..... \$2.50**  
**Chocolate Brown ..... 2.50**  
**Medium Gray ..... 2.50**  
**Bright White ..... 2.50**  
**Cream ..... 2.75**  
**Tan ..... 2.50**



## Speaker Wire

**T-14/ ft ..... \$3.79**  
**50 ft + ..... 3.49**

**DH Labs, Silver Sonic** speaker wire with 14ga silver coated ofc, copper wire, wrapped in Teflon - twin lead in outer jacket



**Stinger 18ga / ft ..... \$0.25**  
**50 ft + ..... 0.20**  
**Stinger 16ga / ft ..... 0.40**  
**50 ft + ..... 0.35**  
**Stinger 12 ga / ft ..... 0.85**  
**50 ft + ..... 0.75**

**Stinger** is a ofc multi stand copper, twin lead speaker wire with black jacket and foot markers and polarity indication.

## Lynk Hook-up Wire

Single lead Hookup wire with silver coated copper and Teflon jacket. 18ga for tweeters and mids, and 14ga for woofers. Specify color.

**18Red / ft ..... \$0.55**  
**18Black/ ft ..... 0.55**  
**18Blue/ft ..... 0.55**  
**14Red / ft ..... 0.95**  
**14Black / ft ..... 0.95**  
**14Blue /ft ..... 0.95**



**Gold plated brass ends for you wires**

**Single Banana / pr ..... \$4.00**  
Multi contact solder or crimp  
**Single Spade / pr ..... \$4.00**  
Wide type will fit all posts.  
**Single, Solderless Banana / pr \$5.50**  
10ga wire, plus spade or stackable.  
**Single Gold Pin/pr ..... \$3.00**  
**Single Sdrless Gold Spade/pr \$5.50**  
(not pictured - see web site)

## Premium, Black Screws.

Pan Head, Phillips with wide particle board thread for superior gripping power.

**#6-3/4 ..... \$0.06**  
Bag of 100 ..... **\$4.00**  
**#8-3/4 ..... 0.08**  
Bag of 100 ..... **4.50**  
**#8-1" ..... 0.08**  
Bag of 100 ..... **4.50**  
Button head Machine screws with threaded insert. Remove/ install without thread strip. Install metal insert with hex key and thread in screw with hex key  
**#8 x 32 x 1" ..... \$0.30**  
Bag of 50 ..... **15.00**  
**#10 x 32 x 1.5" ..... 0.35**  
Bag of 50 ..... **17.00**

## DH Labs, Silver Sonic Interconnect

Connect your electronics with some of the best, for the money wire, available. Silver coated ofc copper with Teflon, ground and 100% shield.

**BL-1 ..... \$3.49**  
**25 ft + ..... 3.25**

**Utility interconnect cable.** ofc copper with pvc, and shield. Great for long runs for sub amps and other projects where price is a concern.

**LZ-1/ ft ..... \$0.40**  
**50 ft + ..... 0.35**



## RCA, Male Ends.

**Standard pair ..... \$5.95**  
**Premium pair ..... 10.95**

We will terminate any wire pair for \$20.00 /pr. plus cost of parts



## Port Tubes and Trim Rings

Trim rings will dress up the ends of pvc

2" dia Trim Ring ..... **\$1.00**  
3" dia Trim Ring ..... **1.25**  
1" dia. x 3.5" L ..... **1.25**  
1.5" dia x 4" L Flared Port Tube ..... **2.25**  
2" dia x 4" L Port Tube ..... **1.50**  
2.25" dia Flare x 4.5"L ..... **2.50**  
2" dia x 7" L Precision -flare both ends .. **9.00**  
3" dia x 17" L Precision - flare both ends **12.50**  
4" dia x 17"L Precision - flare both ends ... **14.50**

## Port Tube cut to length - per inch

1" gray, pvc ..... **\$0.20**  
1.25" gray, pvc ..... **0.21**  
1.5" blk, abs ..... **0.22**  
2" blk, abs ..... **0.23**  
2.5" gray, pvc ..... **0.24**  
3" blk, abs ..... **0.25**

## Super Silver Solder

Just like the name brands at half the cost! 16ga. Flows great!

Per foot ..... **\$0.26**  
1 lb. spool ..... **24.95**



# Accessories

## Mirror Image Points

Black Chrome (or Gold) foot with threaded insert & floor disk, 1.25" dia base & 1.5" tall ..... **\$5.50**  
Set of 8 ..... **40.00**

## Mini Mirror Image Points

"Just the tips" of above, with insert & floor disk, 1/2" dia base x 5/8" tall ..... **\$1.50**  
Set of 8 ..... **10.00**

## Extra Points

Solid brass foot, 3/4" dia base x 1-1/8" tall. Includes threaded insert ..... **\$2.95**  
Set of 8 ..... **21.00**

**Ultra Point** - New! - see web site for details. **\$15.95**

Set of 8 ..... **120.00**

## Standard Spike

A 1/4x20 threaded black spike, 1.5" long with threaded insert and jam nut. Reversible - sharp on one end, rounded on the other **\$1.00**  
Set of 8 ..... **7.25**

**BVD Feet** Cork sandwiched BVD anti vibration pads for your speakers or equipment 2" x 1-7/8" x 15/16" thick ..... **\$3.00**  
8 pcs for **\$22.00**



## L-pad

Adjustable L-pad with knob and hardware  
**15W** ..... **4.95**  
**100W** ..... **10.95**

## New - Stainless Steel screws

#8-1/2" Use near inductors without fear of changing coil value - non magnetic. ... \$0.08  
Bag of 100 ..... \$6.00

#8-3/4" Use as above or as a more decorative screw for mounting drivers ..... \$0.09  
Bag of 100 ..... \$7.00

Speaker Feet



## Stuffing / Vibration Control

**Bonded Dacron**, 27" x 12" x 1.5" . **\$0.85**

## Gasket Material

Seal drivers with this closed cell foam tape. Conforms easily around holes and compresses without warping frames. 1/4" wide x 1/16" thick. Per Foot ..... **\$0.15**  
100 Foot roll ..... **10.00**



## Speaker Repair glue

**Adhesive** We offer three different glues for speaker repair.

**1020** Our white, PVA 1020 glue is an industry standard for gluing paper, and or foam to metal frames. .... **\$3.00**

**PCG** The only glue that will stick to polypropylene. Use it to repair dust caps, rubber surrounds, or anything in regards to polypropylene. The glue does have a short shelf life, but can be prolonged with adding MEK weekly. .... **3.00**

**FCG** A white, PVA glue that stays flexible when dry. Use it to repair cuts in surrounds or spiders and as a coating for foam surrounds or anything that flexes. .... **3.00**

**All three glues** ..... **8.50**  
**Black, "wet look" 4oz** ..... **5.00**

# Custom In wall accessories

New. For those needing to place quality speaker drivers in an in-wall situation. We have 3 metal bezels and grilles to fit most situations using 1/2" drywall/plaster board.

## Model 25

Great for 8" three way or 6.5" MTM. Outer dimensions are 12-5/8" wide and 25-5/8" tall. Inner dimensions are 10" wide and 24" tall. **\$65.00 ea.**

## Model 17

Perfect for 6.5" two way or 5.25" MTM. Outer dimensions are 9-5/8" wide and 17-5/8" tall. Inner dimensions are 7" wide and 15" Tall. **\$40.00 ea.**

## Model 15

Ideal for subwoofers from 8" to 12" Outer dimensions are 15-5/8" wide by 15-5/8" tall. Inner dimensions are 13" x 13" **\$40.00 ea.**

Bezels & grilles are fabricated from heavy 16ga steel and painted with a durable true white enamel that can be repainted to match your room decor.



## Stereo Volume Controls

**AF70**, 70W Imp. matching ..... **28.00**

## CL-3 rated in wall speaker wire.

2 or 4 wire. 16ga. per Foot:

**16-2** ..... **\$0.12**  
1000' ..... **100.00**  
**16-4** ..... **0.24**  
500' ..... **100.00**

# Capacitors *Matching on request*

Q: Which is the best capacitor to use?

A: We find it best to choose a film capacitor whenever possible (Solen, Sonicap, or ERSE). These types are more accurate, with superior dissipation factor.

Q: You have 3 types of film caps - how do I choose?

A: We recommend the Solen as the best cap for the money. We use these as standard for all our crossovers. For the ultimate, choose the Sonicap and for budget systems, the Aria are excellent.

Q: When would I use the electrolytic types?

A: Use them in non critical areas - capacitors going to ground or when a very large value is required and your budget can't afford a film cap that large. Example: a 200uf cap in a woofer circuit or Zobel network. Remember, not all electrolytics are created equal. We've found units with low dissipation factor and high power handling.

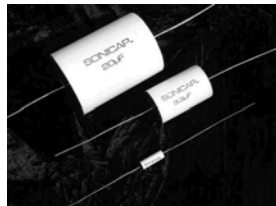
Q: I don't see the value I need, should I go higher or lower?

A: Going from say, 6.2uf to 6uf will make little difference in most designs, but if you want to get the exact value, you can parallel capacitors to get the correct value. Example: a 10uf and 4uf in parallel will give a total 14uf.

Q: What is a bypass cap?

A: Many times you can improve the sound by paralleling a smaller "high grade" cap with your standard cap. Example: You have a midrange series cap requirement of 100uf and you can't afford a 100uf Solen. Choose a 80uf NPE and parallel a 20uf Solen. Many find it a sonic benefit to place a .1uf Sonicap in parallel with all the capacitors in the signal cap. They are small enough not to change the total value and add a good amount of speed to the signal.

SONICAP	
Polypropylene, 220V, 1%	
Value uf	Price
0.01 630v	\$4.60
0.10 630v	5.35
1.0	5.80
1.5	6.80
2.0	7.40
2.2	7.60
3.0	8.60
3.3	9.00
3.9	10.00
4.7	11.20
5.1	11.60
5.6	12.40
6.2	13.40
6.8	14.20
8.2	15.60
9.1	16.60
10	17.60
12	19.60
15	22.30
30	38.00



The Sonicap is a revolutionary product! How is it revolutionary? It redefines the price-to-performance ratio for "audio capacitors". The Sonicap design is world class! The Sonicap will yield or exceed the performance found with the most prestigious of boutique caps, yet a price conducive to that of "entry level". The Sonicap is well balanced and true to the source. The word "neutral" is so loosely (and incorrectly) used, that I prefer the term "balanced". While capacitors suffer from more noise (high distortion) than most audio components, the Sonicap exhibits very low noise and parasitics. The presentation is rich in harmonics, warm, without the slightest loss of detail retrieval! As a matter of fact, the micro-dynamics of the Sonicap is unmatched by anything close to its price range.

Q: I am using the best capacitors in my network, what resistor should I use?

A: Years ago, we recognized the resistor choices hadn't kept up with the cap and coil choices, so we were the first to offer the premium, non inductive, metal film resistor - Lynk. This is the best choice to compliment your premium network

Solen Polypropylene	
"Fast Cap", 400V, 5%	
Value uf	Price
0.10 650V film & foil	4.50
0.22 650V	2.40
0.33 650V	2.45
0.47 650V	2.50
0.68 650V	2.60
1.0	1.90
1.5	2.20
2.0	2.40
2.2	2.55
2.4	2.60
3.0	2.70
3.3	2.80
3.9	3.10
4.3	3.20
4.7	3.30
5.1	3.45
5.6	3.55
6.2	3.65
6.8	3.90
7.5	4.00
8.2	4.90
9.1	5.25
10	5.35
12	6.00
15	6.80
18	7.50
20	7.70
22	7.95
24	9.95
30	11.30
33	12.50
35	12.75
40	14.00
45	15.65
50	16.15
60	19.00
70	20.85
80	23.70
100	29.15
120	35.25
150	40.75
200	52.55



Q: What power is best to use?

A: For tweeter circuits, 5 watt is all you need, so 10 watt will run cool. 10 watt is fine for midranges and 15 watt for woofer sections. If a design calls for more power, the power rating will double if resistors are in parallel - 10W+10W=20W

616•534•9121

ERSE Polyester	
250V, 10%	
Value uf	Price
1.0	0.90
1.5	1.05
2.2	1.10
3.3	1.35
4.0	1.45
4.7	1.50
5.6	1.75
6.0	1.85
6.8	2.00
8.0	2.30
10	2.70
12	3.20
15	4.25
20	5.85



Non Polar Elec.	
100V, 10%	
Value uf	Price
6	\$0.75
8	0.80
10	0.85
12	0.90
15	1.00
22	1.05
33	1.35
47	2.00
50	2.00
65	2.25
70	2.30
80	2.40
100	2.70
125	3.10
150	3.75
200	4.00
250	5.00
330	5.55
1000	9.00



## Resistors

LYNK 2%, precision, metal oxide film, 10 Watt	Sandcast wirewound 5%, 10 Watt	Sandcast wirewound 5%, 15 Watt
\$1.27 ea	\$0.59 ea.	\$0.74ea.
1.0	1.2	1.5
1.2	1.5	2.0
1.5	1.8	2.5
1.8	2.0	3.0
2.0	2.2	3.5
2.2	2.4	4.0
2.4	3.0	4.5
2.7	3.3	5.0
3.0	3.9	5.5
3.3	4.7	6.0
3.9	5.1	6.5
4.7	5.6	7.0
5.1	6.2	8.0
5.6	6.8	9.0
6.2	8.2	10
6.8	9.1	14
7.5	10	23
8.2	12	
10	13	
11	15	
12	16	
15	18	
18	20	
22	24	
27	27	
33	30	
47		

Keep in mind that parallel resistance will also halve - 8 ohm + 8 ohm = 4 ohm. Use this formula to find values not listed or to double your power:

$$R1 \times R2$$

$$R1 + R2$$

# Precision wound 1% **INDUCTORS**

## 20ga Air Core

mH	dcr	Price
0.10	.22	\$3.20
0.15	.23	3.30
0.20	.24	3.56
0.25	.31	3.64
0.30	.33	3.90
0.35	.37	4.09
0.40	.40	4.22
0.45	.42	4.30
0.50	.44	4.43
0.55	.47	4.56
0.60	.49	4.75
0.65	.51	4.82
0.70	.53	5.09
0.75	.55	5.28
0.80	.58	5.54
0.85	.61	5.68
0.90	.64	5.75
1.00	.67	5.80
1.25	.69	5.85
1.50	.72	6.25
1.80	.75	7.00
2.00	.77	8.30
3.00	.82	9.80

+ all values in between!

## 18ga Air Core

mH	dcr	Price
0.10	.13	\$3.45
0.15	.16	3.64
0.20	.19	3.77
0.25	.21	3.90
0.30	.24	4.16
0.35	.26	4.43
0.40	.28	4.56
0.45	.30	4.69
0.50	.36	4.96
0.55	.41	5.02
0.60	.43	5.09
0.65	.45	5.35
0.70	.47	5.41
0.75	.48	5.68
0.80	.49	5.81
0.85	.51	5.94
0.90	.52	6.14
0.95	.53	6.28
1.00	.55	6.47
1.25	.57	7.07
1.50	.64	7.39
1.75	.69	8.28
2.00	.74	9.11
2.25	.80	9.76
2.50	.86	10.50
3.00	.92	11.22
3.50	1.03	11.82
4.00	1.08	12.54

+ all values in between!

## 16ga Air Core

mH	dcr	Price
0.10	.10	\$4.50
0.15	.11	4.62
0.20	.12	5.06
0.25	.14	5.38
0.30	.16	6.07
0.35	.17	6.52
0.40	.18	6.90
0.45	.22	7.28
0.50	.23	8.86
0.55	.25	9.30
0.60	.26	9.49
0.65	.27	9.94
0.70	.28	10.37
0.75	.285	10.70
0.80	.29	11.01
0.85	.30	11.20
0.90	.31	11.51
0.95	.315	11.71
1.00	.32	12.14
1.25	.37	13.28
1.50	.43	14.93
1.75	.46	15.50
2.00	.52	17.08
2.25	.56	17.46
2.50	.60	18.09
3.00	.67	18.60
3.50	.72	19.10

## 14ga Air Core

mH	dcr	Price
0.10	.05	\$7.26
0.15	.066	8.82
0.20	.08	9.38
0.25	.09	9.80
0.30	.10	10.35
0.35	.11	10.89
0.40	.12	11.44
0.45	.13	11.84
0.50	.14	13.01
0.55	.15	13.43
0.60	.16	13.98
0.65	.17	14.20
0.70	.18	15.00
0.75	.19	15.55
0.80	.20	16.09
0.85	.21	16.64
0.90	.225	17.06
0.95	.23	17.61
1.00	.24	18.10
1.25	.27	19.18
1.50	.30	20.27
1.75	.32	21.24
2.00	.33	22.26
2.25	.35	23.23
2.50	.37	24.32
3.00	.39	25.36
4.00	.44	30.20

We've been winding most of our own inductors since day one and have one of the most complete assortments of size and type available. We use 99.998% pure copper wire wound to 1% tol. and wind on plastic bobbins for easy mounting.

**Q:** The value I need isn't listed. What should I do?

**A:** Since we wind our own inductors, just tell us the value you need, and we'll make it! Then pay only for the next highest value listed.

**Q:** I'm not sure which inductor type to use.

**A:** If the inductor type is not specified by your designer, then the choice is usually air core, since they don't saturate at higher power levels.

Because d.c. resistance is the enemy of efficiency, we usually recommend the steel laminate cores for larger values (200Hz or below) or non - signal path values. The Steel laminate can handle great amounts of power before saturation, much more than typical ferrite cores. DCR affects the Qts of the woofer and that affects ultimate box design as well.

**Q:** I'm not sure what wire ga. to use.

**A:** If the wire size is not specified in the design, for best efficiency, the larger wire, the better, at least in the signal path.

There seems to be no perfect inductor so we must compromise between the qualities of air and steel laminate cored.

In 2 way designs, we tend to use 20ga on tweeter circuits and 16ga on the woofer. 3-ways get the steel laminates on the woofer.

**Q:** I need an inductor not even close to what is listed.

**A:** We do work for many major loudspeaker manufacturers and have many options not listed. We can do wire as small as 26 ga. and have various core/ bobbin materials for special projects. Let us know your requirements and we can quote.

## 18ga Steel Laminate

mH	dcr	Price
1.00	.17	\$7.28
1.25	.19	7.46
1.50	.22	7.62
1.80	.24	7.92
2.00	.26	8.09
2.25	.27	8.38
2.50	.29	8.66
3.00	.33	9.01
3.50	.36	9.19
4.00	.39	9.59
4.50	.41	10.08
5.00	.45	10.40
5.50	.48	10.69
6.00	.51	10.97
6.50	.52	11.33
7.00	.53	11.55
7.50	.535	11.73
8.00	.54	11.84
8.50	.55	12.01
9.00	.56	12.18

## 15ga Steel Laminate

mH	dcr	Price
1.00	.10	\$11.20
1.50	.14	12.61
2.00	.156	12.92
2.50	.164	14.04
3.00	.178	15.12
3.50	.19	16.80
4.00	.22	18.43
4.50	.23	19.25
5.00	.25	20.06
5.50	.257	20.51
6.00	.272	20.88
6.50	.287	21.55
7.00	.307	22.01
7.50	.320	22.63
8.00	.345	23.27
10.00	.376	25.70
12.00	.426	26.88
15.00	.505	28.99
18.00	.550	29.79
20.00	.595	32.90



# Professional Crossover Design

If you have investigated the crossover design process in any detail, you will come to realize that there is really no such thing as a “stock” crossover. Speaker drivers present the amplifier with a relatively complex load rather than a simple 8 or 4 ohm resistance. From our years of design experience we know the design process involves far more than a generic measurement and quick analysis.

- The design process begins with your goals in mind. We spend a good deal of time with you discussing your audio chain, your listening and music / home theater preferences and design goals.

- Once your goals are clear, we go to work by constructing your enclosure (or test enclosure if you are building the final version yourself). Because driver response varies widely depending on baffle width and driver location, all subsequent acoustical and electrical measurements are then performed on the exact cabinet that you will ultimately be listening to. This is by far one of the biggest advantages of this type of design service.

- The types of measurement taken are frequency response, (SPL response) and Impedance. We take SPL measurements both on and off axis and at various distances as this helps determine the best crossover point at which the chosen drivers will behave their best.

- The first step of the optimizing process involves exporting these precise measurements to professional optimizing software. While this sophisticated software can “crunch the numbers” rather quickly, the result is only a reliable starting point. The real work begins by massaging the data to conform to your end goals and listening tastes. Depending on the drivers themselves, driver locations and design goals, this process can and usual does take several hours.

- Once we have your tentative design finished, a mock up of the crossover is built to re measure and check for accuracy. When your speaker units are introduced to real world loads, in most cases, they behave quite differently than the optimizer would suggest. This is the second biggest advantage of the service.

- After we are satisfied that the finished network conforms to your design goals, the entire test set up is moved to the evaluation room for a through audition. With your preferences in mind, we are able to voice the speaker to a variety of music on both solid state or tube equipment as well as digital or analog recordings. This is the third biggest benefit of this service.

- And yet, we are not done. The final crossovers are now constructed. We are happy (if possible) to use any special “brands” of components you require. Inductors are wound to within a turn of specified value and capacitors are matched. The completed networks are then re measured in the system for a third time to verify the outcome is something you will enjoy for years to come.

- Our service also allows for user adjustment to allow for your specific tastes as well as phone support after the sale, should any questions arise.

Total pricing depends on cabinet , speaker driver and network component choices.

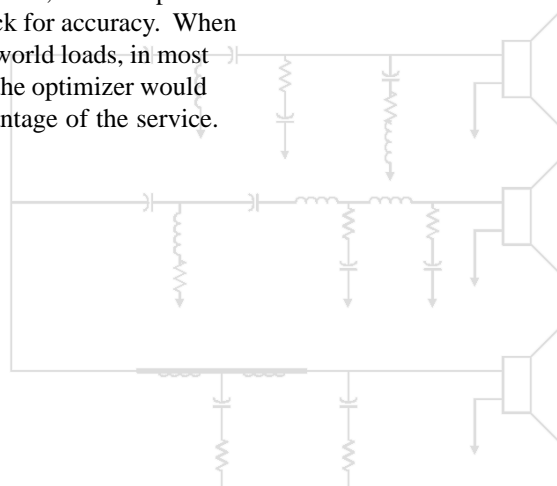
Professional Design fees are as follows:

**Two way passive** **\$200.00**

**Three way passive** **\$600.00**

Alternate active, DSP crossover with programming starting at **\$550.00**

We invite you to call for more details on how we can help you design the 2 channel or H/T system of your dreams.



# Pre Engineered Systems

## Mains - two channel or H/T

Not looking for a proprietary design? We have hundreds of pre engineered systems that have gone through the same steps as our Professional designs.

All we need to start is a brief summary of your needs, design goals, and product preferences. From there we can offer a wide assortment of designs that will fit your requirements.

We have proven systems ranging from Silver Flute, to Peerless, SEAS, Accuton, and Scan Speak to name a few. In other words, we have a system for you to fit most any budget.

Take them anyway you like, fully assembled and tested, or in parts/kit form.

**Cabinets** - Please call. We are finalizing brand new models, all made in the USA featuring real wood veneers, Baltic Birch bracing and cosmetics. We should have a size to meet most needs.

## Active Subwoofers

Because the subwoofer needs only to produce deep bass with low distortion, we've settled on a few designs that we know will exceed your expectations.

**Standard** active subwoofers feature very high excursion units with XBL, split gap technology and use a minimum of 300W A/AB amplifiers:

**MA-SW10**, 10" subwoofer requiring less than 1.5cu ft sealed enclosure.

**MA-SW12**, 12" subwoofer requiring less than 2.5 cu ft sealed enclosure.

**Motion Feedback Controlled** active subwoofers are your best choice for state of the art systems. Benefits:

- Deep base (-3dB @ 15Hz), relatively small sealed box
- Parametric EQ for room integration
- Efficient amplification with voice coil sensing unit. Others need upward of 1000W to obtain the same results.

**MA-MFC12**, 12" subwoofer requiring 2 cu ft sealed

**MA-MFC15**, 15" subwoofer requiring 3 cu ft sealed.

## POWERED SUB WOOFER AMPLIFIERS

The best sub solution is to self power with active network. A conventional passive network with associated speaker wire can rob your amp's damping factor by 80%! Plus, the active network lets you blend your sub easily into your listening environment. We have modeled numerous subwoofers with these amps and can help with your design questions. These mono amps will sum both channels of stereo preamps or connect to "sub out" on A/V receivers. Speaker level connection is also available from older, non A/V receivers.

Model	PSA-100	KG-5150	KG-5230	KG-52100	A-400
Power 8/4	100/150	150/200	175/300	600/1000	250/400 2 ohm
THD	.01%	.03%	.08%	.08%	.02%
S/N Ratio	100dB	95dB	85dB	90dB	95dB
In. Sen. low	150mv	75mv	150mv	190mv	.1V
In. Sen. Hi	3.5V	3.5V	2V	4.2V	1.2V
Input Impedance	22Kohm	22Kohm	22Kohm	22Kohm	
Variable xover, 12dB	40-160Hz	50-100Hz	50-150Hz	50-100Hz	40-300 Sub & Sat. 24dB/oct
Weight	8.2 lbs..	11 lbs.	15 lbs.	28 lbs.	20 lb.
Width	8-1/4"	11-7/16"	9-7/8"	12"	16.75
Height	10-5/8"	8-1/4"	9-7/8"	12"	4"
Cutout width	7-1/4"	10-7/16"	8-7/8"	11"	9.5"
Cutout hght.	9-5/8"	7-1/4"	8-7/8"	11"	n/a
AC Voltage	115	15/230	115/230	115/230	115
Xover defeat	No	Specify	switchable	switchable	
Phase invert	Yes	Yes	Yes	Yes	No
Boost	6dB@35Hz	4dB@25Hz	4dB@25Hz	5dB@24Hz,defeat	Yes variable
Auto turn on/off	Yes	Yes	Yes	Yes	Yes
Min. Load	4 ohm	4 ohm	4ohm	4 ohm	2 ohm
	<b>\$99.00</b>	<b>\$169.00</b>	<b>\$225.00</b>	<b>\$510.00</b>	<b>\$339.00</b>

"The most versatile Sub amp available"

### Reckhorn A-400

also has:  
 Low boost range  
 EQ level -6Db  
 EQ range 22-80Hz  
 Subsonic filter 15-40 Hz variable  
 24dB/oct  
 2 ohm stable!!



**A-400**

### PSA-100



### KG-5150



### KG-5230



### KG-52100



While a bit more expensive than other brands, the KG52100 utilizes the ICE power module from B&O - a device that has much lower distortion than competitive class D products.

Our selection opens with some of the most outstanding units available anywhere. Manufactured by Thiel and Partner in Germany, you will find these parts in some of the most renowned systems in the world. The Accuton inverted domes are made by a unique electrochemical manufacturing process out of aluminum foil, which leads to very thin,

form-stable diaphragms of  $\text{Al}_2\text{O}_3$  in sapphire lattice with high internal damping. This feature is very important and responsible for very low coloration and distortion, not achieved by other membrane materials. The well balanced concave shape yields wide and uniform energy distribution, which is far more important than high on axis sound pressure. [www.accuton.com](http://www.accuton.com)



### Accuton - The Ultimate, concave, ceramic units from Germany

Model / imp	Price ea.	Description	Range	$F_s$	$Q^s$	$V^{as} L$	$X_{mm}^{max}$	SPL	Rec. Box Ltr.
D20/6	2900.00	20mm, Pure Diamond dome! Nothing like it.	1.8-100K	900				89.5	
C <sup>2</sup> -12/6	226.00	25mm, inverted dome tweeter. Ceramic Dome	2.5-40	700				89.5	
C <sup>2</sup> -13/6	297.00	25mm as above - high output	2-40	1250				92	
C <sup>2</sup> -23/6	262.00	30mm, as above, Exceptional tweeter!	1.9-27	350				89.5	
C <sup>2</sup> -24/6	345.00	30mm as above - high output	1800-27	825				92	
C <sup>2</sup> -44/8	276.00	2" Midrange, as above - great midrange	800-12	390	.77	11	1	88.5	
C <sup>2</sup> -79/6	339.00	3" Midrange, as above	200-5	96	.51	3.1	1	88.5	1-4 S
C <sup>2</sup> -82-T8	200.00	5" Bass/ Midrange, Cast round frame/rubber	34-4	34	.27	18	3	87	3S/5V
C <sup>2</sup> -89/T6	368.00	5" Bass/Midrange, As above, Titanium v.c.	34-4	34	.22	23.5	3	89	2S, 4V
C <sup>2</sup> -90/T6	614.00	7" Midrange As above with higher SPL	73-7	73	.30	8.8	3	93	
C <sup>2</sup> -92/6	285.00	7" Bass/Midrange, Cast, Ceramic / rubber	29-4	29	.42	54.8	4	86	20S, 48V
C <sup>2</sup> -95/T6	368.00	7" Bass/ Midrange, As above, Titanium v.c.	32-3	32	.28	34.2	5	89	6S, 10V
C <sup>2</sup> -96/T6	563.00	7" Bass/ Midrange, Neo mag, High SPL	37-5	37	.14	32	7	93	
C <sup>2</sup> -220/T6	564.00	8" Bass, Cast, Ceramic / rubber ,Titanium v.c	20-2.5	20	.27	144	5.2	89.6	26S, 34V
C <sup>2</sup> -220N/T6	819.00	8" Bass, as above with Neo mag, High SPL	26-3	26	.18	107	7	93	

AAAC is a company that was formed to carry on the tradition of the Audax line. The tooling was purchased from Audax to produce some of the more popular units.



### AAAC- Affordable excellence from France

Model / imp	Price ea.	Description	Range	$F_s$	$Q^s$	$V^{as} L$	$X_{mm}^{max}$	SPL	Rec. Box Ltr.
<b>Tweeters</b>									
TW01F1/8	6.00	10mm, poly dome on 74mm dia plate	6-20	3000			.25	90	
TM025A0/8	28.50	25mm, Fabric dome	3-20	1250			.5	90	
TW025A2/4	28.50	25mm, with Fabric dome, Spica replacement	3-20	1250			.5	90	
TW025A20	103.50	25mm, Titanium dome, Neo magnet, heat sink	2.5-20	1137			.5	93	
TW025A26	96.75	25mm, Fabric dome, as above	.25-20	1126			.5	94	
<b>Midrange/Woofers</b>									
HM100C0	81.75	4" Carbon fiber cone, cast truncated frame	54-8	54	.21	5.6	1.8	89	
HM130C0	89.25	5.25", Carbon fiber cone, cast, truncated frame	46-5	46	.31	18	3	90	
PR170M0	83.50	6.5", Professional	400-5	117	.51	5.5	.5	100	

We are very pleased to now offer the line of planar magnetic ribbons from BG Corp. They are suppliers to some of the more famous names in audio and now they are available to you! There are two new smaller ribbons as well as a nice 5.25" mid woofer.

We are using this woofer and ribbons in several kits. We have other BG Planars - Call for details. Find more info at: [www.bgcorp.com](http://www.bgcorp.com)



### BG Radia Corp. - Affordable Planar Magnetics

Model / imp	Price ea.	Description	Range	$F_s$	$Q^{ts}$	$V^{as} L$	$X^{max}_{mm}$	SPL	Rec. Box Ltr.
NEO3/4 Raw	43.50	3" Planar-magnetic, Alum/Kaladex film	2000-20					96	
NEO3PDR/ 4 Raw	43.50	As above but wider dispersion	2000-20					93	
NEO8/4 Raw	62.50	8" Planar-magnetic, Alum/Kaladex film	500-18					93	
NEO8PDR/4 Raw	62.50	8" As above but wider dispersion	500-18					92.5	

Add our proprietary faceplates to the Neo3 \$6.00or Neo8 for additional \$8.00ea. Add, factory round faceplate to Neo3 for \$5.50 ea.



We are proud of our long relationship with Eton. They are the high end arm of LPG, one of the largest driver makers in Germany. Eton is probably our favorite cone unit for midrange clarity, speed, and low distortion. Vocals are clear and open and even low end is surprisingly good in the smaller units. They are a perfect match for ribbons. You will also find Eton units as the choice in many high end systems. For more info see: [www.etongmbh.de](http://www.etongmbh.de)

### Eton - Premium drivers featuring Kevlar, "Hexacone" technology from Germany

Model / imp	Price ea.	Description	Range	$F_s$	$Q^{ts}$	$V^{as} L$	$X^{max}_{mm}$	SPL	Rec. Box Ltr.
<b>Tweeters</b> - All feature aluminum faceplates									
ER 4 /6	341.50	4" Ribbon based on the Heil Air Motion transform	1.5-30	450				92	
19SD-1 /8	69.75	19mm Silk Dome - outstanding speed & disper.	2.5-30	1100				89	
25SD-1 /8	76.50	25mm Silk Dome outstanding value	2-25	1000				90	
26HD1/A8	139.00	25mm <b>Symphony</b> - Magnesium/ceramic, Neo mag.	1.6-30	800				91	
<b>Midranges</b> - All feature cast aluminum chassis, Hexacone cones, and rubber surrounds									
4-200/A/8	123.25	4" <b>Symphony</b> - New Mid/Bass	78-6	78	.42	2	2	88	1S/2.2V
<b>Bass/Midrange</b> - All feature cast aluminum chassis, Hexacone cones, and rubber surrounds									
5-880/25/8	120.25	5" MidWoofer, open midrange, surprising bass	52-3	52	.38	8.7	3	87	3.6V
5-200/A8	155.00	5" <b>Symphony</b> - New Mid/Bass	45-4	45	.37	7.8	3.25	88	
5-300/A8	211.00	5" <b>Symphony</b> - New Mid/Bass with Phase plug	46-4	46	.37	7.4	3.25	88	
<b>Bass Units</b> - All feature cast aluminum chassis, Hexacone cones and rubber surrounds									
7-360/37/8	145.50	7" Woofer, good power, low distortion	43-2.5	43	.37	20	3.5	89	14 V
7-372/32/8	179.00	7" Woofer, long throw with heat pipe cooling	32-2	32	.27	44	5.5	90	19 V
7-200/A8	180.25	7" <b>Symphony</b> - New Mid/Bass	32-3	32	.31	25.4	4.5	89	19V
7-300/A8	212.00	7" <b>Symphony</b> - New Mid/Bass with Phase Plug	32-3	32	.28	26	4.5	88	
8-800/37/8	172.00	9" Woofer, great bass speed	36-1.5	36	.39	45.5	3.5	89	43 V
8-472/32/8	222.50	9" Woofer, long throw, with heat pipe cooling	24-2	24	.29	116	5.5	89	64 V
8-200/A8	218.00	9" <b>Symphony</b> - New Woofer	31-2.5	31	.36	57.5	4	90	
11-581/50/8	343.00	11" Woofer, excellent match to electrostats	21-1	21	.30	153	5	91	37 V
12-680/62/8	493.00	12" Woofer, audiophile subwoofer	26-800	26	.34	150	6	91	92 V

We have all Eton kits available, please call for details.

**T** rue to form, when we couldn't find what we needed, we built it ourselves. The Meniscus line (formerly Eclipse) features everything you need in a woofer line without unnecessary frills that add costs. New are the long throw 10" & 12" subwoofers.



**MENISCUS - Affordable woofers made in USA. Featuring Black Poly cones/rubber edges**

Model / imp	Price ea.	Description	Range	F <sub>s</sub>	Q <sup>ts</sup>	V <sup>as</sup> L	X <sup>max</sup> <sub>mm</sub>	SPL	Rec. Box Ltr.
W0838R/8	<b>58.00</b>	8" Woofer, 38oz, 2" v.c. Great for sub or 2-way	28-25	28	.39	57	8	88	34 V
W1038R/6	<b>65.00</b>	10" Woofer, 42oz, 2" v.c. Great for sub or 3way	20-25	20	.3	200	7.9	88	57 V
W1238R/6	<b>68.00</b>	12" Woofer, 42oz, 2" v.c. Great for Subwoofer	20-5	20	.31	250	8	89	115 V
SW1084R/4	<b>135.00</b>	10" Long Throw Sub woofer, 84 oz Paper/rubber Premium Sealed box Woofer	18-100	20	.36	84	16	87	20S/45V
SW1284R/4	<b>150.00</b>	12" Long Throw Sub Woofer, 84oz Paper/rubber Premium Sealed box Woofer	18-100	18	.39	170L	12.8	89	49S 100V



**M**orel has long been considered the "poor man's" Dynaudio. With the elimination of Dynaudio drivers, Morel has stepped up with new advanced designs that fill the gap and more. The tweeter selection is wide and their characteristics run on the smooth side, being easy to listen too. Magnetically shielded units are plentiful. You will also find many of these units in top class commercial systems. For more info see: [www.morelhifi.com](http://www.morelhifi.com)

**MOREL - First class, units from Israel**

Model / imp	Price ea.	Description	Range	F <sub>s</sub>	Q <sup>ts</sup>	V <sup>as</sup> L	X <sup>max</sup> <sub>mm</sub>	SPL	Rec. Box Ltr.
<b>Tweeters</b> All tweeters have hand coated textile domes and are 8 ohm									
ST1108	<b>226.75</b>	Supreme 28mm premium tweeter, 110mm flange	1600-22	680				91.5	
ST1308	<b>240.50</b>	Supreme 28mm premium, 130mm flange	1600-22	680				91.5	
ET448	<b>108.00</b>	Elite, 28mm, 72mm flange, dbl Neo magnet	2.2-25	750				92	
ET338	<b>159.00</b>	Elite, 28mm, 110mm flange, dbl Neo magnet	1.8-25	750				92.5	
ET338-104	<b>152.25</b>	Elite, as above with 104mm flange	1.8-25	25				92.5	
MDT-12	<b>32.00</b>	28mm, Small neo, low cost square, plastic plate, FF	2-25	1000				89	
MDT-22	<b>35.00</b>	28mm, as above with rear chamber	1.8-25	650				89	
MDT-29	<b>48.50</b>	28mm, Classic, metal front plate, ferro fluid	1.8-20	900				89	
MDT-30S	<b>70.50</b>	28mm, As above with rear chamber - Very popular!	1.6-25	700				90	
MDT-32S	<b>75.00</b>	28mm, Lg mtg plate version of MDT-30, mod .chbr.	1.6-25	650				90	
MDT-39	<b>54.25</b>	28mm, Similar to MDT-22	2.2-20	750				88	
MDT-40	<b>74.25</b>	28mm, As above with more output	2.2-20	750				89	
30 Voice Coil \$19.00, 32/33/37/44 v.c. \$20.50, 40 v.c. \$20.00, 37/ 44 v.c \$20500									
<b>Midrange</b>									
MDM55/8	<b>89.25</b>	54mm soft dome with 87mmsq mtg plate. Neo mag	500-6.5	380				90.5	
EM1308	<b>144.50</b>	Elite, 2" Dome mid, 130mm dia face plat, Neo mag	500-5	320				88	
<b>Woofers</b> all have steel frames, rubber surrounds .									
MW144 4/8	<b>94.00</b>	5", 3" v.c. with Poly cone, dbl magnet	40-5	45	.36	12.3	3.5	88	3S/7V
CAW428	<b>95.50</b>	4", 2"v.c. Cast Uniflow basket, poly cone	74-3	74	.38	4.5	4	88	2S/3V
CAW538	<b>113.00</b>	5", As Above with 3" v.c.	49-3.5	49	.38	8.2	3	86	3S/6V
CAW638	<b>122.00</b>	6", As Above.	43-3	43	.46	15.7	4.25	86	6S/14V
CAW938	<b>135.75</b>	9", As Above	31-3	31	.60	51	4.25	87	30S
MW164 4/8	<b>107.00</b>	6", 3" v.c. with coated paper cone, dbl magnet	45-5	48	.55	14.3	4.25	86	12S/26V
MW166 4/8	<b>107.00</b>	6", 3" v.c. Poly cone, dbl. magnet	45-5	46	.61	14.3	4.25	86	19S/32V
MW168 4/8	<b>107.00</b>	6", 3" v.c. As above with lower Qts	40-5	44	.41	16	3.25	88	5.5S/13V
MW265 4/8	<b>116.00</b>	8", 3" v.c. Poly cone, dbl magnet	30-2.6	30	.44	88.6	3.5	90	36S/96V
MW266 4/8	<b>116.00</b>	8", 3" v.c. As above with higher Qts	28-2.2	29	.56	80	4.25	89	72S/150V
MW1075/8	<b>144.00</b>	10", 3" v.c. Coated paper cone with foam edge	25-1.6	29	.62	123	4.25	89	63S/163V
UW1058	<b>379.50</b>	10" True subwoofer, 5.1" v.c. Cast frame- impressive	26-200	26	.43	40.8	12.5	85.8	20S/50V
UW1258	<b>449.00</b>	12" as above	21-200	21	.43	138	12.5	87	50S/113V



Scan Speak is the high end arm of Tymphany and provides some very remarkable products. We can easily name several manufacturers using these fine drivers and countless kits systems have been developed using them. We can't think of a finer choice for your high end speaker project. We have much experience with the Scan Speak line and can help with any design questions. Look for the new *Illuminator* series in October, 2008 For more information see: [www.tymphany.com](http://www.tymphany.com)

### Scan Speak - High Performance units from Denmark

Model / imp	Price ea.	Description	Range	$F_s$	$Q_{ts}$	$V_{as}$ L	$X_{mm}^{max}$	SPL	Rec. Box Ltr.
<b>Tweeters</b> All have aluminum face plates and are 8 ohm imp. Repair parts @ \$21.00ea. Revelator repairs at 1/2 retail price									
D2010/8513	<b>77.00</b>	19mm Silk Dome with decor faceplate FF	3-20	800			.2	90	
D2905/9300	<b>129.00</b>	28mm Silk Dome Industry std. FF	2-20	650			.5	90	
D2905/9500	<b>132.00</b>	28mm As above with FF, NRC	2-20	550			.5	90	
D2905/9700	<b>164.00</b>	28mm As above, Revelator SD-2, LCD, NRC	2-20	500			.5	89	
D2905/9900	<b>241.00</b>	28mm As above, Revelator with CDD	1.5-20	500			.5	91	
D2904/6000-01	<b>200.00</b>	28mm Mini silk Dome with Neo magnet	2.5-20	750			.5	90.5	
D2904/9800	<b>206.00</b>	28mm Alum. Dome, Revelator SD-2 LCD NRC	2-20	500			.5	91	
R2904/7000	<b>398.00</b>	28mm, Ring Radiator ( Silver/Black and/or plug)	1.5-25	520			.2	94.4	
D2904/7100	<b>285.00</b>	28mm, Wide surround premium tweeter blk/slvr	1.6-25	520			.2	94.5	
D3004/6600/4	<b>220.00</b>	28mm, AirCir, Neo magnets, optimized rear	1.6-25	520			.2	92.5	
<b>Midranges</b> all cone mids have cast aluminum frames, rubber edges and are 8 ohm imp.									
12M/4631G	<b>285.00</b>	4.5" Revelator, slit cone, Neodymium Magnet	75-8	75	.33	2.4	3	89	7S/7V
15M/4531K	<b>222.00</b>	5" Revelator	70-5	35	.22	24	3	90	3S/7V
<b>Woofers</b> all have cast aluminum frames , rubber surrounds and are 8 ohm imp.									
15S/8530K-01	<b>216.25</b>	5" Revelator, shielded, NRCS, SD-1, R3	30-8	30	.35	28	6.5	85	6S/14V
15W/4531G	<b>223.00</b>	5" Revelator, slit paper cone NRSC, SD-1, R3	39-8	39	.32	16	6.5	87	7S/7V
15W/8530K-01	<b>212.00</b>	5" Revelator, NRCS, SD-1, R3	30-8	30	.35	28	6.5	84.5	6S/14V
15W8530K-00	<b>212.00</b>	5" Revelator, larger magnet version of above	30-8	30	.27	28	6.5	85.5	4.5S/8.5V
18W/8531G	<b>225.00</b>	7" Revelator - New! Slit Paper cone, SD-1, R3	28-5	27.5	.36	61	6.5	87	15S/32V
18W4531G	<b>232.00</b>	7" Revelator, as above in 4 ohm	33-5	27.5	.35	42	6.5	90	10S/21V
18W/16531G	<b>232.00</b>	7" Revelator, as above in 16 ohm							
18W8535	<b>174.00</b>	7" CP, SD-1, R3	29-4	29	.38	69	6.5	87	20S/48V
18S/8535	<b>188.25</b>	7" shielded version of above	29-4	26	.40	72	6.5	87	22S/53V
18W/8545	<b>164.00</b>	7" CP, SD-1, R3	28-2.2	28	.31	48	6.5	88	23V
18W/8545K	<b>167.00</b>	7" As above with Kapton v.c former	28-2	28	.28	48	6.5	88	6S/12V
18W/8542	<b>165.00</b>	7" Paper cone. SdD1, Foam edge	30-4	42	.22	49	6.5	89	4S/7V
18W/8543	<b>160.50</b>	7" Poly cone SD, R	29-4	29	.23	49	6.5	89	10V
18W/8546	<b>153.50</b>	7" Kevlar cone, SD-1, R3	30-3	30	.21	84	6.5	89	17V
21W/8554	<b>182.00</b>	8" Kevlar cone, SD, foam edge	42-4	42	.22	160	6.5	90	43V
21W/8555-01	<b>194.75</b>	8" CP, SD-1, R3	19-800	19	.26	136	6.5	88	40V
22W/8851T	<b>347.00</b>	8.75" Revelator motor with hard paper cone	21-5	21	.25	127	9	88	
22W/4851T	<b>344.00</b>	Same as above but 4 ohm	21-5	21	.23	127	9	89	
22W/8857T	<b>308.00</b>	8.75" Rev motor, with Aluminum cone	23-5	23	.30	89	9	86	
25W/8565-01	<b>209.50</b>	10" CP, SD-1, R3	19-600	19	.34	229	6.5	88	117V
25W/8565-00	<b>209.50</b>	10" Carbon Paper, SD-1, R3	19-600	19	.41	229	6.5	88	76S/190V
26W/8861T	<b>375.00</b>	10" Revelator motor with hard paper cone	19-600	19	.31	234	9	88.5	
26W/4867T	<b>339.00</b>	10" Black Aluminum Cone SD-1 Ti former 4 ohm							
26W/8867T	<b>354.00</b>	10" Black Aluminum ConeSD-1 Ti former 8 ohm							
23W/4557T	<b>385.00</b>	10" Aluminum Cone SD-1, ti former	20-200	20	.44	44	13	83	28S/59V
23W/0-00	<b>163.00</b>	10" Aluminum Passive Radiator fs10.5 Sd232cm Mms 400g Vas 43.5 Qms 11.5 xmax 20mm							
Scan Flow Resistor - A fiber glass filled disk that tricks a sealed box woofer into thinking it is in a larger box <b>\$7.00 ea</b>									
FF=Fero Fluid SD= Symmetric Drive SD-1= Optimized Symetric Drive with transient soft clipping LCD= Low compression design SD-2= Optimized high frequency transient response NRC= non resonante chamber CDD= constant directivity design CP=Carbon Paper NRCS= non resonant cone structure R=high loss rubber R2= low loss rubber R3= non resonant low loss rubber HP= hard paper									

SEAS (say-aahs) units are produced in Norway. They once shared patents with Vifa, so you may see similarities in some of the classic units. Recently, SEAS has pioneered more premium designs such as

the Excel line They have lost their Poly cone maker, so these units will disappear soon. Call for availability. SEAS has plenty to offer. For more information look at: [www.seas.no](http://www.seas.no)

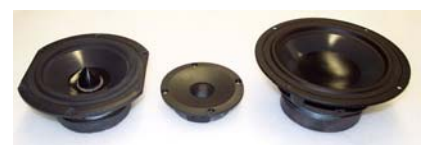
<b>SEAS Premium drivers form Norway</b>									
Model / imp	Price ea.	Description	Range	F <sub>s</sub>	Q <sup>ts</sup>	V <sup>as</sup> L	X <sup>max</sup> mm	SPL	Rec. Box Ltr.
<b>Tweeters All 19-20mm are 8ohm and all 25-27mm are 6ohm nominal</b>									
22TAF/G (H1283)	34.25	22mm Alum, wide surround	2.2-30	1100				92	
27TFFNC/G (H1396)	32.00	27mm, Fabric dome, no flange, Neo mag	2.5-30	1170				91	
27TAFNC/G (H1397)	32.00	27mm, Alum. dome, no flange Neo Mag	2.5-30	1170				90	
27TFFC (H881)	39.00	27mm, Fabric Dome, Chambered	2-25	900				91	
27TBC/G (H1147)	42.75	27mm, Alum/Mag. dome chamber, no FF	1.2-20	600				92	
27TDC (H1149)	40.00	27mm, Textile, chambered, no FF	1.6-20	800				90	
27TDFC (H1189)	40.50	27mm, Textile, chambered with FF	1.1-20	550				89.5	
27TDFC/TV (H1210)	41.00	27mm, Textile, shielded with FF	1.6-20	800				90	
27TDF (H1211)	33.00	27mm, Textile, FF	1.8-20	900				92	
27TBF/G (H1212)	43.25	27mm, Alum Dome, chambered, FF	1.8-20	550				90	
27TTFNC/GW (H1461)	89.25	27mm Titanium dome, FF, New Neo motor	1.5-20	750				91.5	
27TDNFC/GW (H1462)	92.00	27mm, as above with Fabric dome	1.5-20	750				90.5	
29TAF/W (H1322)	48.75	As above with special wave guide plate	2.2-20	950				91.5	
29TFF/W (H1318)	44.00	As above with fabric dome	2.2-20	950				92	
T25CF001 (E006)	104.00	25mm Sonotex Dome, Excel Tweeter	2-25	750				90	
T25CF002 (E011)	224.50	25mm Sonotex Dome, Millennium Tweeter	2.2-25	500				88	
T29AF001 (E0039)	215.00	29mm Alum/Mag. Alloy - Millennium	2-22	500				92	
T29CF001 (E0038)	210.00	29mm Sonomex Dome - Millennium	2-25	550				93	
T29CF002 (E0040)	336.00	29mm Sonomex, Hexadyn, "Crescendo"	2-25	500				92.5	
T29MF001 (E0047)	242.00	29mm, Magnum with Mag. dome, neo mag	2-25	500				92	
<b>Midranges, Feature cast magnesium frames all are 8 ohm imp.</b>									
MCA12RC (H1304)	58.00	4.5 Coated Paper Foam Edge	680-5	68	.56	5	.9	86	1-2S
MCA15RCY (H1262)	68.00	5.25" Coated Paper	56-4	56	.25	12	1.7	90	1-3S
<b>Woofers, Paper Cones, Magnesium frames and Rubber surrounds all are 8 ohm imp.</b>									
CA12RCY (H1152)	63.50	4.5", Coated, squared frame	68-5	68	.56	5	3	86	1S
CA15RLY (H1216)	66.00	5" Coated paper - New! Great performer!	47-3	47	.37	12	5	87	3S/7V
CA18RLY (H1217)	68.25	6.5" Coated Paper, New	48-3	48	.45	30	5	88	13S/34V
CA18RNK (H1215)	75.25	6.5" as above, bigger magnet	36-3	36	.35	36	6	87	8S/18V
CA22RNK (H1288))	88.00	8", Coated with larger magnet system	31-3	29	.41	97	6	89.5	32S/80V
CA26RFX (H1305)	151.00	10", Coated, as above, long throw	29-1	29	.34	129	7	90.5	27S/57V
CA26RE4X (H1316)	119.00	10" Coated, as above 4 layer v.c.	25-1	25	.28	164	4	91	20S/40V
<b>Woofers, Reed, paper cones with Magnesium Frames and Rubber Surrounds</b>									
ER15RLY (H1455)	61.00	5.25" Mid woofer Reed, pulp paper	50-4	44	.32	15	5	87	
ER18RNK (H1456)	78.00	6.5" As above	45-3	37	.32	32	6	88	
<b>Woofers, Aluminum cones, Magnesium frames and Rubber surrounds, Phase Plugs all are 8 ohm</b>									
L12RCY/P (H1207)	69.25	4.5" Woofer, rd with phase plug	48-5	48	.28	6	3	86	3V
L15RLY/P (H1141)	75.00	5.25", Woofer, round frame	45-3	39	.31	14	4	89.5	2.5S/8.5V
L16RN-SL H1480)	86.50	5" Aluminum woofer use in Linkwitz, Pluto	45-2	36	.46	19	6	84	
L18RNK/P (H1224)	86.50	6.5", Woofer 4 layer v.c.	37-2.5	37	.33	26	6	87	5S/10V
L22RN4X/P (H1208)	96.00	8", Woofer 4 layer v.c.	23-2	23	.32	72	7	86	18S/39V
L22RNK/P (H1252)	92.00	8", Woofer	23-1	23	.33	116	6	88	10S/20V
L26RFX/P (H1209)	165.25	10" woofer bumped back plate	20-1	20	.34	166	7	87	25S/76V
<b>Woofers, New - Polypropylene cones</b>									
P18RNK/P (H1350)	78.00	6.5" Poly cone with phase plug "New"	43-	43	.33	24.9	6		5S/10V
<b>Passive Radiators, Polypropylene cones with magnesium frames</b>									
SP18R (H9944)	43.25	fs=26 Mms=21.5g Cms=1.74mm/N Sd= 130sq cm Xmax=9.5mm							
SP22R (H9945)	60.00	fs=22 Mms=28g Cms=1.87mm/N Sd=230 sq cm Xmax= 10mm							
SP26R (H9946)	88.00	fs=22 Mms=42g Cms=1.25mm/N Sd=350sq cm Xmax 12.5mm							
<b>Coaxial Drivers - UniQ technology licensed from KEF all are 8 ohm all require additional crossovers</b>									
T18REX/FXC (H1353)	152.50	7", poly cone with 1" fabric tweeter	29-20	29	.22	47.9	3	87	5S/9V
T18REX/FCTV2 (H1333)	159.00	7" Coax., clear cone, magnetic shielding	26-20	26	.26	52	3	87	5S/10V

Crossovers for the coaxial drivers are available, call.

SEAS



Peerless



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## SEAS continued

Model / imp	Price ea.	Description	Range	F <sub>s</sub>	Q <sup>s</sup>	V <sup>as</sup> L	X <sup>max</sup> <sub>mm</sub>	SPL	Rec. Box Ltr.
<b>Woofers, Excel - Zinc frames, and rubber surrounds, Copper Phase Plugs</b> all are 8 ohm									
W12CY001 (E0021)	175.00	4.5", Excel Woofer, Magnesium cone	46-4	46	.32	5.8	3	85	1S/2V
W12CY003 (E0044)	160.50	4.5" Excel Woofer, Nextel cone	60-3.5	60	.36	3	3	85.5	1S/2V
W15CY001 (E0015)	162.50	5.5", Excel Woofer - Magnesium cone	37-3	37	.34	13.5	4	86	3S/6V
W15CH 001 (E0037)	218.75	5.5" Excel Woofer Hexadyn, Mag. cone	50-3	41	.45	12	4	85	5S/13.6V
W15LY-001 (E0041)	151.25	5.5" Excel Woofer, Nextel/Paper, Phase	50-4	49	.45	12	5	86.5	6S/13V
W16NX-001 (E0049) 4/8	225.50	New, 6.5" Mag Cone, special surround	37-2.5	39	.35	14	7	85	7S/15V
W18E001 (E0018)	197.00	7", Excel Woofer - Magnesium cone	31-2.5	31	.34	37	5	86.5	8S/17V
W18E001/TV (E0027)	203.75	7" Excel Woofer, magnetically shielded	29-2.5	29	.29	56	5	87.5	8S/16V
W18EX001 (E0017)	200.00	7", Excel Woofer, Larger Magnet - New!	40-2.5	31	.24	37	5	88	4S/7V
W18NX001 (E0042)	196.75	7" Excel Woofer, Nextel/Paper, Phase	30-3	40	.34	24	7	87.5	5S/11V
W22EX001 (E0022)	232.50	8", Excel Woofer - Magnesium cone	30-2	27	.34	75	5	90	16S/33V
W22NY-001 (E0045)	240.25	8" Nextel cone, phase plug	33-2	33	.3	72	7	90	15S/29V
W26FX001 (E0026)	341.75	10" Excel Woofer - Magnesium cone	20-2	20	.35	161	7	87	36S/78V
W26FX002 (E0046)	328.50	10" Nextel cone, phase plug	30-2	31	.39	87	7	87	25S/50V

Peerless is one of the oldest European manufacturers, once having production all over the world including the USA. They are now part of Tympany who owns Vifa-Scan Speak.

Regretably, all the classic CSCX units have been discontinued. Check the new lines of HDS units plus the XXLS subwoofer. For more info, go to [www.tympany.com](http://www.tympany.com) **New Exclusive line is here!**

## PEERLESS - Quality drive units from Denmark

Model / imp	Price ea.	Description	Range	F <sub>s</sub>	Q <sup>s</sup>	V <sup>as</sup> L	X <sup>max</sup> <sub>mm</sub>	SPL	Rec. Box Ltr.
<b>Tweeters</b>									
810921	78.00	1" HDS Fabric Dome - <b>New!</b>	2-20	700				93	
<b>Full Range</b>									
830970/4	19.00	2", Aluminum cone, inverted surround	148-20	148	.57	.2	1.7	85	
830983/4	19.25	2", as above std surround	147-20	147	.57	.2	1.7	83	
830985/4	21.00	2.5", as above, inverted surround	101-20	101	.54	.8	2	83.5	
830986/8	22.75	2.5", as above std surround	102-20	102	.68	.8	2	83.8	
830987/8	23.00	3", Aluminum cone	84-20	84	.59	1.8	2	83.8	
830987/8	24.50	3", as above, inverted surround	96-20	96	.60	1.6	2	85.5	
<b>Midrange /Bass</b>									
<b>Exclusive Series with Decorative silver, cast frames, rubber edges, &amp; phase plugs</b>									
831882/8	58.50	5.25" HDS, as above	64-4	64	.39	7.2	3.4	88.2	2S/ 5V
830883/8	68.50	6.5" HDS, as above	52-4	52	.43	13	5.5	87.5	5S/13V
830884/8	74.75	8" HDS, as above, truncated frame	32-3	32	.38	69	5.5	89.3	19S/ 44V
<b>PPB Series, Polypropylene cones, rubber edges, and alum. shorting ring, truncated cast frames</b>									
830870/8	43.25	4.5", HDS, Poly cone, inverted dust cap	76-7	76	.46	3.2	3	86.8	1.5S/4V
830860/8	44.50	5.25" HDS, Poly cone, inverted dust cap	56-6	56	.41	10.6	3.5	88.3	3.6S/8V
830874/8	53.75	6.5" HDS, as above	47-4	47	.40	16.7	5.5	87.8	3.6S/13V
831868/8	64.75	8" HDS, as above	32-3	32	.42	63.4	5.5	90.1	23S/ 57V
<b>Nomex Series, Nomex paper cone, rubber edges, cast truncated frames</b>									
832873/8	46.75	5.25", Nomex cone	58-6	58	.38	8.7	3.5	88.3	2.5S/6V
830875/8	54.50	6.5", Nomex cone	48-3	48	.39	17.6	5.5	88.6	5S/12V
830869/8	58.75	8" Nomex cone	29-3	29	.29	76	5.5	90	11S/21V
<b>Sub Woofer Series cast frames, rubber surrounds</b>									
830452/8	177.75	10" XLS Woofer, paper cone, cast frame	19-500	19	.17	80.2	12.5	88.4	34PR
830481	83.00	10" XLS Passive radiator/400gram for above	fs=11.2, Vas=80, Mms=400g, Ds=333cm <sup>2</sup> , Xmax=22mm, Cms=508m/N, Qms=14 Rms=2						
830500/8	202.50	12" XLS Woofer, paper cone, cast frame	18-500	18	.21	136.8	12.5	90.6	34PR
830548	111.00	12" XLS Passive radiator/425g for above	Fs=10, Vas=170, Mms=425g, Sd=466 cm <sup>2</sup> , Xmax=24mm, Cms=.550m/N, Qms=15.2 Rms=1.8						
830843/8	175.75	10" XXLS, XXtra Long Stroke, 8 ohm	25-200	25	.44	86.7	12.5	87.2	36S/90V
830842/4	176.75	10" XXLS, XXtra Long Stroke, 4 ohm	19-200	19	.19	88.4	12.5	88.4	12S/18V
830846/8/8	177.75	10" XXLS XXtra Long Stroke, dual voice coil	24-200	24	.33	81.8	12.5	91	16S/32V
830951/4	188.50	10" XXLS Aluminum cone	20-800	21	.3	103	13	90	71V
830845/8	196.50	12" XXLS, XXtra Long Stroke 8 ohm	21-200	21	.45	162.5	12.5	88	38S/100
830844/4	197.00	12" XXLS, XXtra Long Stroke	17-200	17	.20	156.5	12.5	90.3	13S/22V
830847/8/8	212.50	12" XXLS, XXtra Long Stroke, dual voice coil	21-200	21	.36	144.2	12.5	92	29S/50V
830952/4	222.25	12" XXLS, Aluminum cone	20-800	19	.37	159	13	91	40S/96V
LAT-250	68.00	Dual coil sub with 5 x 2" woofers	63-200	63	.64	7.8	3	91	
LAT-500	337.00	Dual coil sub with 5 x 5" woofes	28-200	28	.45	81	7	92	60V
field replaceable <b>voice coils</b> for all old tweeters except 811435, \$7.00									

Vifa from Peerless (formerly V-line) might be our best selling line. The Vifa seems to be the go to brand for moderate cost systems - from the classic lines to the new "PL" line and "XT" tweeter. Countless commercial manufacturers use the V-line. For help with your next project, give us a call. For more detailed information see: [www.tymphany.com](http://www.tymphany.com) Please note - most Vifa has been discontinued. All that will remain are the some standard, PL and XT units. Look for a whole new line up in 2009 with all new baskets, cones, and neo motors.



<b>Vifa - Quality drive units from Denmark</b>										
Model / imp	Price ea.	Description	Range	$F_s$	$Q^s$	$V^{as} L$	$X^{max}$ mm	SPL	Rec. Box Ltr.	
<b>Classic Tweeters</b>										
BC25SC06/4	13.00	25mm, Textile dome, Neo tweeter	3-20	1350				96		
BC25SC55/4	13.00	25mm, as above - truncated frame	3-20	1350				96		
DQ25SC16/4	15.75	25mm, Metal dome, Neo tweeter	3-20	1320				94		
19TD05/8	27.75	19mm Polymer dome	3-20	1700				89		
D25AG-35/6	43.00	25mm, Metal dome with low res. rear chamber	1.5-35	850				89		
D27TG-35/6	37.25	25mm Silk comp dome with rear chamber	1.5-30	650				90		
D27TG-45/6	37.25	25mm, Silk, Decor plate with rear chamber	1.5-30	650				90		
H26TG-35	43.00	25mm, Textile dome with horn loading	2-20	940				95		
D26NC-55/6	37.25	25mm, Silk, neo magnet, heat sink, truncated	3-22	1500				91		
<i>D19v.c.= \$8.00, D19Adv.c.= \$12.50, D20v.c.= \$8.75, D26H, D27 tinsel lead v.c.= \$9.75, D25AG v.c.= \$14.75</i>										
<b>Classic Midranges</b> all cone midranges have cast aluminum frames and rubber edges										
D75MX-31/8	90.00	3", Fabric dome, open back, 3" v.c.	500-6	350				92	1-1.5S	
M10MD-39/8	31.00	4", Coated paper cone	300-8	110				88	1S	
Isolation chamber for M10 \$1.75 ea. For P13MH \$4.25 ea.										
<b>Classic Woofers</b> All units have cast aluminum frames and rubber edges										
P13WH-00/8	48.75	5", Woofer with Polypropylene cone	60-5	60	.33	10	4	88	2S/4V	
M13SG-09/8or16	42.00	5", Mid with coated paper and magnetic shield	54-5	54	.35	12	2	88	3S/6V	
M17SG-09/8	45.25	6.5", Woofer, As above	34-5	34	.34	53	3	89	17S/26V	
P17WJ-00/8 or 4	51.75	6.5", Woofer with Polypropylene cone - Classic!	37-5	37	.35	35	4	88	14V	
<b>"PL" Premium Line Woofers</b> Heavy cast frames, lg. voice coils, rubber edges, special cone geometry and gold terminals										
PL11WG-09/8	64.50	4.5", Special, coated paper, Premium Line	52-6	55	.47	4.25	3	85	.9S/1.3V	
PL14WJ-09/8	83.25	5", Woofer, Special coated paper, Premium line	45-6	45	.35	14	3	86	1.5S/6V	
PL18WO-09/8or4	91.50	6.5", Woofer, Premium Line, spec. coated cone	39-4	39	.35	24	4	87	6S/12V	
PL22WR-09/8	109.50	8", Woofer, Premium Line spec. coated cone	26-500	26	.35	60	4	86	10S/30V	

## Vifa continued

Model / imp	Price ea.	Description	Range	$F_s$	$Q^s$	$V_{as} L$	$X_{mm}^{max}$	SPL	Rec. Box Ltr.
<b>"XT" High performance Tweeters</b>									
XT19TD00/4	40.50	19mm, Dual concentric ring radiator/ wave guide	3-40	1700				89	
XT25TG30/4	48.25	25mm, Dual concentric ring radiator/ wave guide	1.5-40	500				91	
XT25SC50/4	33.50	25mm, As above with "mini" face plate -2.5" dia	1.6-40	950				91.7	
XT25BG60/4	54.25	25mm, Dual concentric with dual magnet	1.5-40	950				92.4	
<b>"XT" High performance Woofers</b> All units have cast aluminum, low distortion frames and rubber edges									
XT18WO09/8	109.50	7" Woofer with spruce pulp cone	38-8	38	.37	38	4.5	88	10S/22V
<b>Full Range</b>									
TG9FD-10/8 or 4	32.50	3.5" Full Range, white fiberglass cone	100-15	82	.56	3.15	2.6	85.5	3S/6V
TC9FD18/8	15.50	3.5" Full Range, Paper cone	100-10	110	.72	2.0	3	85.9	3S/6V
<b>"Classic" Auto Sound units</b>									
D26NC05/6	31.50	1" Fabric dome, Neo magnet	3.5-20	1800				91.5	
Mounting cups for Neo tweeters - surface wedge mount \$3.00, flush mount \$3.75									

LPG is known for some of the best dome units in the world. Located in Germany, LPG produces units for some of the best European companies. We think the 26T is one of the best metal domes out there and the neodymium units have found their way into thousands of auto sound systems



## LPG - Great dome units from Germany

Model / imp	Price ea.	Description	Range	$F_s$	$Q_{ts}$	$V_{as} L$	$X_{mm}^{max}$	SPL	Rec. Box Ltr.
25NFA/8	43.00	25mm Silk Dome, Neo Shielded . Great for car	3-20	1700			.2	92	
26NA/8	37.00	25mm Alum Dome, Neo shield mag. Great for car	3-20	1700			.2	92	
26NARF/8	37.00	As above with 66mm mounting flange	3-20	1700			.2	92	
26T	45.00	25mm Titanium Dome, dual magnet - Great!	2-25	900			.2	90	
51AT	72.00	50mm, Alum/Titanium Dome Mid with chamber	1-9	480			.7	93	
Autosound Mounting cups for 26NA tweeter flush mount: \$3.00 ea. Surface mount wedge \$3.00 ea. Hinged, surface mount cup \$3.50ea.									
Replacement voice coils for 25RK, 26T, and 51AT available - call									



SB Acoustics was formed from the former engineers of Scan Speak. Their first project was to product a line of of affordable units, but with "high end" engineering. The result will impress you.

## SB Acoustics- European designs, assembled in Indonesia

Model / imp	Price ea.	Description	Range	$F_s$	$Q^s$	$V_{as} L$	$X_{mm}^{max}$	SPL	Rec. Box Ltr.
<b>Tweeters</b>									
SB25STC/4	28.95	25mm, Sonotex dome, copper cap pole	2-25	680Hz			.6	91	
<b>Midrange/Woofers</b> All feature cast frames and rubber surrounds									
SB15NRX30/8	53.00	5.25" Kapok fiber cone, Low dist. motor, cast frame	50-4	38	.33	20.7	5	88	9V
SB17NRX35/8	61.25	6", as above	50--3	32	.34	44.5	5.5	90	17V
<b>Woofers</b> All feature cast frames and rubber surrounds									
SB29NRX75/6	151.25	10", as above with 3" voice coil, double magnet	40-1	21	.35	102	11	88	56V
SB34NRX75/6	178.75	12", as above	25-1	19	.40	260	11	90	70V

Silver Flute is a small capable company located in Shanghai, China producing excellent product to spec. from USA engineering. Performance is very good from this unassuming product. With the 8 and 4 ohm imp., to the magnetic shielding, there should be a model for most any budget project.



**Silver Flute** A suprisingly good product assembled in China with USA Engineering

Model / imp	Price ea.	Description	Range	$F_s$	$Q^s$	$V_{as} L$	$X_{mm}^{max}$	SPL	Rec. Box Ltr.
W14RC-25/8-4	20.75	5.5" Mid/Bass, cast frame, rubber edge, wool/paper cone	43-9	43	.35	18.9	3.5	87	4.2S/9.2V
W14RC-25S/8-4	23.25	5.5", As above with magnetic shielding	43-9	43	.40	18.8	3.4	87	6S/14.5V
W17RC-38/8-4	30.00	6.5", Mid/Bass, cast frame, rubber edge, wool/paper cone	40-5.5	40	.29	28.2	5	89	4.3S/8.4V
W17RC-38S/8-4	35.50	6.5", AS above with magnetic shielding	40-5.5	40	.31	24.3	5	88	4.3S/8.6V
W20RC-38/8-4	37.00	8" Woofer with cast frame, rubber edge and wool/paper cone	30-5	30	.233	83.3	5	90	8S/18V
W20RC38S/8	47.50	8" Woofer as above, magnetic shielding	30-5	29	.41	85	5	88	14S/28V



Fountek is a very strong entry into the ever popular ribbon tweeter market. Manufactured in China by a very intuitive speaker designer, the Fountek pure ribbons offer extremely good performance without the usual high price associated with European designs. These ribbons offer excellent horizontal dispersion with a "light and airy" sonic signature.

**Fountek** - Another suprisingly good product assembled in China

Model / imp	Price ea.	Description	Range	$F_s$	$Q^s$	$V_{as} L$	$X_{mm}^{max}$	SPL	Rec. Box Ltr.
NeoCD1R	58.00	1.5" Pure Ribbon tweeter, Neo Magnet	3-40	1.6				89	
NeoCD3.0R/7	89.00	3" Pure ribbon tweeter, Neo Magnet 110mm Round Face plate.	2.5-40	1.7				95	
NeoCD3.0S/7	89.00	3" Ribbon as above with 3"w x 4.5"L Rectangular faceplate.	2.5-40	1.7				95	
NeoCD2.0/7	126.00	5" Pure ribbon tweeter, Neo Magnet, Rectangular faceplate, 3.3" W, 4.65" L	2-40	300				98	
NeoPro5i/7	305.00	5" Pure ribbon tweeter, High output version, Neo Magnet faceplate is 3.3" wide x 6.5" L	1.5-40	400				102	

Fountek tweeters should always be used with a crossover and tested with a capacitor - they are fragile in this regard, but excellent PHC in systems. Units are also repairable at Meniscus for \$20.00 + S&H



Creative Sound Solutions offers what we feel are the most logical choice for both small, full range systems and premium line arrays. The units are compact, have smooth response, and offer the XBL motor system for low distortion. Check out the new 15" with XBL motor - 3" voice coil and 30mm xmax!

**CSS** The top choice for full range units - great for line arrays.

Model / imp	Price ea.	Description	Range	$F_s$	$Q^s$	$V_{as} L$	$X_{mm}^{max}$	SPL	Rec. Box Ltr.
RT1	\$100.00	4" Honeycomb ribbon tweeter, rd or sq faceplate	2.5-30k					91dB	
LAR1	229.00	6" Honeycomb ribbon tweeter, high spl	2.2-30					95	
Alpair 5	69.50	2" Wide range, gray or gold-copper	100-20	125	.71	1.1	2.5	85	
FR125S/8	70.00	4.5" Full Range, XBL motor, copper Phase Plug	67-18k	67	.56	5.58	6	85.9	6S/10V
WR125ST/16	50.00	4.5" as above, truncated frame, 16 ohm	65-14k	65	.64	5.8	6	85.6	10S/14V
SDX7	100.00	7" Woofer XBL motor, Carbon fiber cone, Copper phase plug.	34-800	34	.35	23.7	11	85	11S/22V
SDX10	139.00	10" Subwoofer, 2.5" Voice coild XBL Motor	26-200	26	.42	53	18.4	85	28S/50V
SD12	155.00	12" Subwoofer, 2.5" voice coil, Hex Cone	23-200	23	.39	83	19.5	85.6	1.5S/3V
SDX15	259.00	15" Subwoofer with XBL motor, dual 2 ohm v.c.	19-200	19	.39	218	30	87	70S/140V
PR15	76.00	15" Passive Radiator, cast frame 1050, 1400g		4.3		978	25		
PR18	139.00	18" Passive Radiator, cast frame 1600, 2100g		4.2		184	75		

# ATB PC Pro

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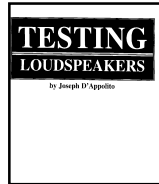
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