

**SPECIFICATIONS**

**Octane-R Subwoofers**

	<u>10/10d</u>	<u>12/12d</u>
Mounting Depth	.5 5/8 in	.6 1/2 in
Mounting Diameter	.9 1/4 in	.11 1/16 in
Overall Diameter	.10 1/8 in	.12 1/8 in
Peak Power Handling	.400 Watts	.500 Watts
RMS Power Handling	.200 Watts	.250 Watts
V <sub>dd</sub> (Driver Displacement)	.0.1ft <sup>3</sup>	.0.14ft <sup>3</sup>

**Octane-R10**

**T/S Parameters**

F <sub>s</sub>	29.837 Hz
R <sub>e</sub>	3.3 Ohms
Q <sub>ms</sub>	7.22
Q <sub>es</sub>	0.457
Q <sub>ts</sub>	0.430
V <sub>as</sub>	39.6926 liters
M <sub>ms</sub>	118.4129 grams
C <sub>ms</sub>	.233 uM/Newton
BL	12.7556 Tesla-M
SPL(efficiency)	89.71 dB
S <sub>d</sub>	.346 sq cm
X <sub>max</sub> (field)	.25mm p-p

**Octane-R10d**

**T/S Parameters**

F <sub>s</sub>	31.388 Hz
R <sub>e</sub>	6.48 Ohms
Q <sub>ms</sub>	6.010
Q <sub>es</sub>	0.569
Q <sub>ts</sub>	0.520
V <sub>as</sub>	34.7523 liters
M <sub>ms</sub>	122.3259 grams
C <sub>ms</sub>	.204 uM/Newton
BL	8.3479 Tesla-M
SPL (efficiency)	88.84 dB
S <sub>d</sub>	.346 sq cm
X <sub>max</sub> (field)	.25mm p-p

**Octane-R12**

**T/S Parameters**

F <sub>s</sub>	22.346 Hz
R <sub>e</sub>	3.530 Ohms
Q <sub>ms</sub>	8.260
Q <sub>es</sub>	0.443
Q <sub>ts</sub>	0.420
V <sub>as</sub>	118.8918 liters
M <sub>ms</sub>	151.3991 grams
C <sub>ms</sub>	.321 uM/Newton
BL	13.1624 Tesla-M
SPL(efficiency)	90.03 dB
S <sub>d</sub>	.511 sq cm
X <sub>max</sub> (field)	.25mm p-p

**Octane-R12d**

**T/S Parameters**

F <sub>s</sub>	23.640 Hz
R <sub>e</sub>	7.24 Ohms
Q <sub>ms</sub>	8.190
Q <sub>es</sub>	0.499
Q <sub>ts</sub>	0.470
V <sub>as</sub>	117.7807 liters
M <sub>ms</sub>	135.9013 grams
C <sub>ms</sub>	.318 uM/Newton
BL	8.6628 Tesla-M
SPL(efficiency)	91.74 dB
S <sub>d</sub>	.511 sq cm
X <sub>max</sub> (field)	.25mm p-p

**LIMITED WARRANTY**

Phoenix Gold International, Inc. (or "Phoenix Gold") warrants its products against defects in materials and workmanship for a limited period of time. For a period of 90 days from date of original purchase, we will repair or replace the product, at our option, without charge for parts and labor. Customer must pay all parts and labor charges after the limited warranty period expires. The limited warranty period for factory refurbished products expires after ninety (90) days from date of original purchase. This limited warranty applies only to purchases from authorized Phoenix Gold Electronics/Speaker retailers.

This limited warranty is extended only to the original purchaser and is valid only to consumers in the United States. Consumers are required to provide a copy of the original sales invoice from an authorized Phoenix Gold dealer when making a claim against this limited warranty. This limited warranty only covers failures due to defects in materials or workmanship that occur during normal use. It does not cover failures resulting from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, modification, service by anyone other than Phoenix Gold, or damage that is attributable to Acts of God. It does not cover costs of transportation to Phoenix Gold or damage in transit.

This warranty will become void if the serial number identification has been wholly or partially removed, altered or erased. Repair or replacement under the terms of this warranty does not extend the terms of this warranty. Should a product prove to be defective in workmanship or material, the consumer's sole remedies will be repair or replacement as provided under the terms of this warranty. Under no circumstances shall Phoenix Gold be liable for loss or damage, direct, consequential or incidental, arising out of the use of or inability to use the product. There are no express warranties other than described above.

**PHOENIX GOLD**

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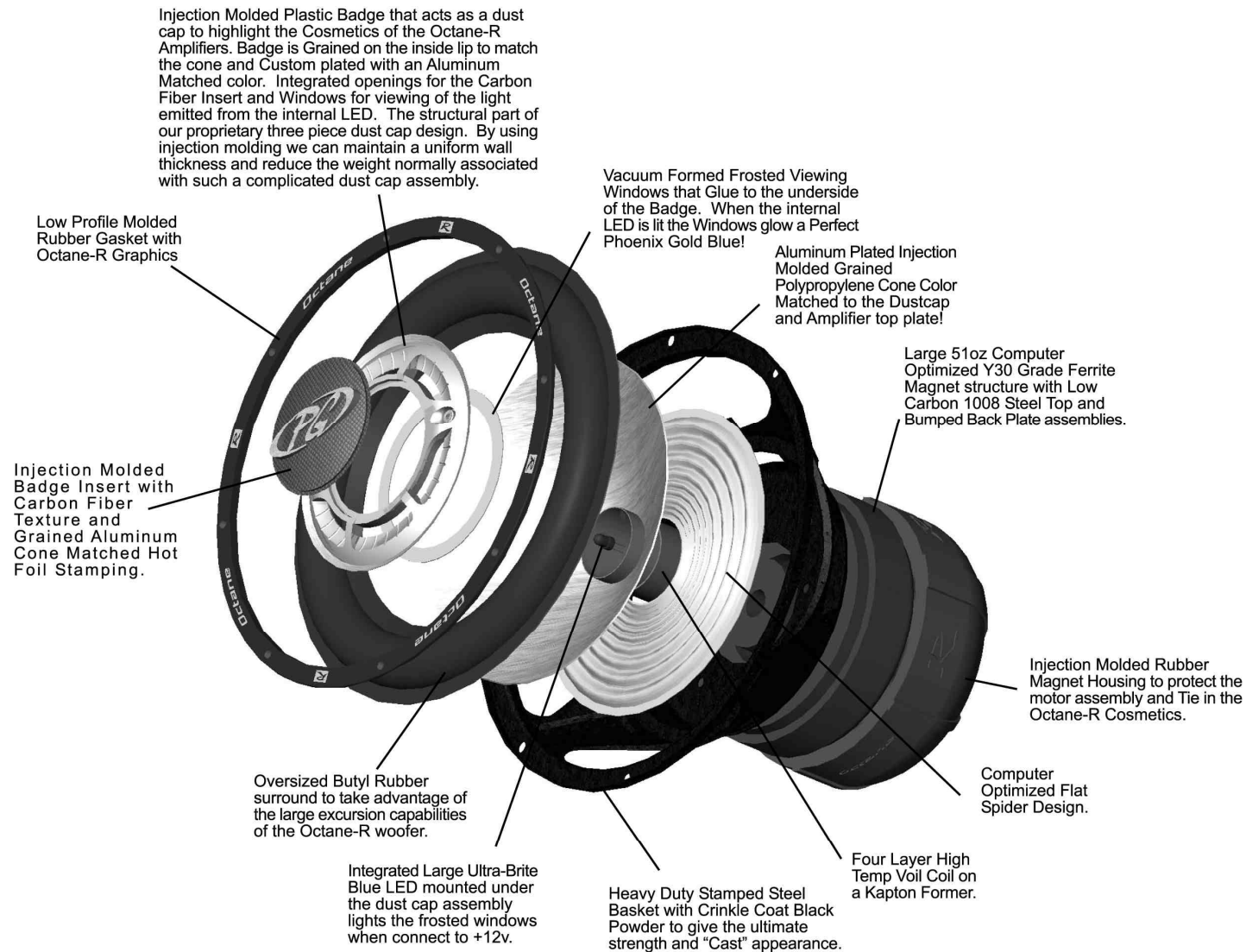
**Octane-R 10 and 12 inch High Excursion Subwoofers**

**FEATURES**

• For complete manuals, technical tips, FAQ's, system diagrams and new product information visit us @

- Custom Tooled Injection Molded Octane-R 3 Piece Dust Cap with Carbon Fiber Inlay
- Integrated Ultra-Bright Blue LED Back Light
- Injection Molded Aluminized Grained Polypropylene Cone
- Four Layer 1.5 Inch Voice Coil
- High Temperature Kapton Former
- Injection Molded Rubber Low Profile Top Gasket
- Heavy Duty Stamped Steel Basket with Black Crinkle Coat
- Injection Molded Rubber Motor Housing
- Custom Tooled Computer Optimized Linear Spider
- Robust 51 Ounce Y30 Grade Computer Optimized Motor Structure

# Speaker Anatomy



# Speaker Design

The Octane-R subwoofer was developed from the ground up to compliment the amazing performance of our Octane-R Series amplifiers. Utilizing cutting edge design techniques, we can deliver a woofer that has an impressive peak to peak field excursion of up to 25mm. Coupled to a one piece injection molded polypropylene cone provides exceptional musicality at very high drive levels. All of the motor and suspension parts have been computer optimized to provide symmetrical driving force in both directions. This translates into very low distortion and exceptional output even as your amplifier is running out of steam.

# Enclosure Information

The Octane-R subwoofers are over engineered and overbuilt in virtually every way conceivable. Its very important that the enclosure is built to these same exacting standards. The enclosure must be comprised of .75 inch MDF. Screws or air staples are excellent construction fasteners when used with a strong bonding "yellow" wood working glue that can fill joint gaps. Be sure that the enclosure's panels are airtight at all joining seams. Lining the walls with a polyester matting 1 to 3 inches thick is sufficient.

Your PG dealer has extensive knowledge, tools and the experience needed for the design and construction necessary for your Octane-R subwoofer application. We also recommend you consult with your dealer for specific technical assistance related to your installation.

The charts provided should be used as a reference when building an enclosure for your Octane-R subwoofer. The charts contain several enclosure types. The Sound Quality enclosure provides deeper, tighter, and more musical output to truly reproduce the original source material. While the SPL fits the basshead's needs of maximum output while sacrificing some sound quality.

## Enclosure Recommendations

10/10d										12/12d							
Sealed		Vented								Sealed		Vented					
volume ft <sup>3</sup>		volume ft <sup>3</sup>		port diameter		port length		Musical		volume ft <sup>3</sup>		volume ft <sup>3</sup>		port diameter		port length	
10	10d	10	10d	10	10d	10	10d	10	10d	12	12d	12	12d	12	12d	12	12d
.7	.9	1.1	1.25	3"	3"	10.5"	9"	Musical		1.35	1.6	2.2	2	4"	4"	12"	12"
.4	.45	.85	.95	3"	3"	9"	8"	SPL		.75	.9	1.35	1.2	4"	4"	12"	12"

\*The above enclosures include the driver displacement.

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## Octane-R Woofer Dimensions

	10/10d	12/12d
Mounting Depth	5 5/8 in	6 1/2 in
Mounting Diameter	9 1/4 in	11 1/16 in
Overall Diameter	10 1/8 in	12 1/8 in

# LED Instructions

Flying wires: LED Power

+ (red) = Switched 12 Volt Power  
- (black) = Ground



Large Terminal: Voice Coil