

CADENCE



**WOOFER ENCLOSURE
DESIGN MANUAL**

BEAST SERIES



PERFORMANCE TARGET: High power handling, small enclosure.
SUSPENSION: Conex with integral lead wires.
WOOFER EDGE: Oversize butyl rubber.
MOTOR STRUCTURE: Extended pole with vented and extended yoke plate.
MAGNET: Double stack.
VOICE COIL: 4 Layer on DuPont Kevlar.
CONE: Talc filled dot patterned poly

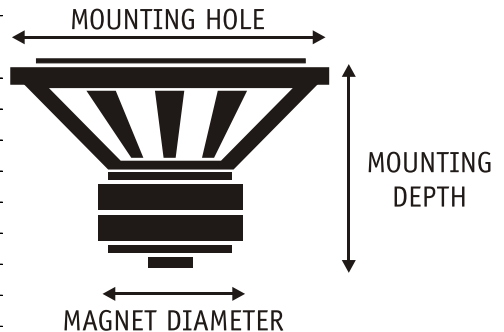
The advantages of a 2 ohm woofer in your system.

Do you want to squeeze the most power out of your standard car power amplifier? Do you want to stop having to parallel up to eight-8 ohm woofers or four-4 ohm woofers to get your high current amp down to a 1 ohm load? Now you can with the 2 ohm Cadence Beast subwoofers.

Have a 1 ohm stable amp? Just use two Cadence Beast subwoofers to achieve a 1 ohm load. Have a standard 2 ohm stereo amplifier? Hook up one Beast to each channel and presto, you're getting maximum power into a 2 ohm stereo load!

MODEL	Ohm	Fs	Vas	Qes	Qms	Qts	Re	Xmax	VC	Magnet	RMS	SPL
BEAST 10	2	30	1.77	0.46	10.14	0.44	2.5	1.18"	2.5"	85 oz. DM	500	87dB
BEAST 12	2	28	2.68	0.51	7.073	0.48	2.5	1.18"	2.5"	90 oz. DM	600	87dB
WILD BEAST 10-2	2	29	0.99	0.56	6.06	0.51	1.5	1.18"	2.5"	120 oz. DM	600	93dB
WILD BEAST 10-4	4	28	1.04	0.55	5.94	0.50	3.6	1.18"	2.5"	120 oz. DM	600	93dB
WILD BEAST 12-2	2	29	1.87	0.63	6.257	0.57	1.5	1.18"	2.5"	150 oz. DM	700	95dB
WILD BEAST 12-4	4	30	2.1	0.64	6.237	0.58	3.6	1.18"	2.5"	150 oz. DM	700	95dB
WILD BEAST 15-2	2	25	4.84	0.65	5.461	0.58	1.8	1.18"	3"	150 oz. DM	750	95dB
WILD BEAST 15-4	4	25	4.35	0.62	7.382	0.57	3.6	1.18"	3"	150 oz. DM	750	95dB

MODEL	MOUNTING HOLE	MOUNTING DEPTH	MAGNET DIAMETER
BEAST 10	9-3/32"	6.53"	5.5"
BEAST 12	10-7/8"	7.12"	6.14"
WILD BEAST 10-2	9-3/32"	6.53"	6.14"
WILD BEAST 10-4	9-3/32"	6.53"	6.14"
WILD BEAST 12-2	10-7/8"	7"	6.7"
WILD BEAST 12-4	10-7/8"	7"	6.7"
WILD BEAST 15-2	13-25/32"	7.91"	6.7"
WILD BEAST 15-4	13-25/32"	7.91"	6.7"



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Wild BEAST



PERFORMANCE TARGET: High power handling, infrasonic bass response, small enclosure.
SUSPENSION: Conex/Cotton linear progressive with integral lead wires.
WOOFER EDGE: Oversize butyl rubber.
MOTOR STRUCTURE: Extended pole with vented and extended yoke plate.
MAGNET: Super plates with double stack.
VOICE COIL: 4 Layer on black aluminum.
CONE: Composite Kevlar, Nomex, Pulp.

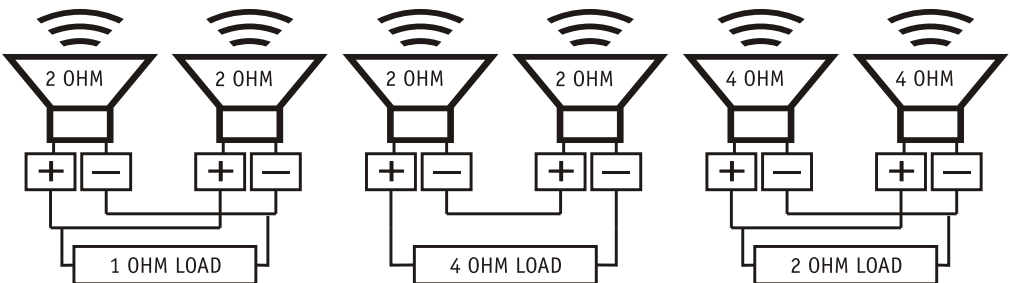
SEALED
ENCLOSURE

MODEL	PURIST F-3 dB		NORMAL F-3 dB		BOOMER F-3 dB	
	CUFT.	Hz	CUFT.	Hz	CUFT.	Hz
BEAST 10	1.25	49	0.75	51	0.65	58
BEAST 12	1.50	41	1.00	43	0.75	48
WILD BEAST 10-2	1.12	40	0.55	42	0.40	47
WILD BEAST 10-4	1.14	39	0.55	41	0.36	46
WILD BEAST 12-2	1.50	37	1.25	37	0.88	42
WILD BEAST 12-4	1.50	38	1.25	38	0.88	43
WILD BEAST 15-2	2.50	35	2.00	35	1.50	35
WILD BEAST 15-4	2.50	32	2.00	37	1.50	37

VENTED
ENCLOSURE

MODEL	CABINET CUFT.	VENT DIAMETER	VENT LENGTH	F-3 dB	TUNING
				Hz	FREQUENCY
BEAST 10	1.20	3"	10"	39	39
BEAST 12	1.50	3"	9.4"	35	35
WILD BEAST 10-2	1.25	3"	12"	28	35
WILD BEAST 10-4	1.25	3"	11.6"	28	35
WILD BEAST 12-2	1.75	3"	7.5"	32	35
WILD BEAST 12-4	1.75	3"	7.5"	34	35
WILD BEAST 15-2	2.60	4"	7.5"	36	38
WILD BEAST 15-4	2.60	4"	7.5"	36	38

VARIOUS IMPEDANCE WIRING DIAGRAMS



Why do Cadence BEAST subwoofers come in SVC (Single Voice Coil) instead of DVC (Dual Voice Coil)?

The answer is simple, power handling. A Cadence SVC BEAST will handle more power. We wind our voice coils using just one very heavy gauge wire to reach the desired impedance. A DVC woofer requires two smaller gauges of wire to reach the same desired impedance. Smaller wire = smaller power handling.

Why do Cadence BEAST subwoofers come in 2-ohm instead of 8-ohm?

Once again the answer is power. If you have a high current amp and need a 1 ohm load, you can now achieve that with just 2 woofers instead of four 4-ohm woofers or eight 8-ohm woofers. If your amp is a standard 4-ohm mono amp, you can wire two 2-ohm woofers in series to achieve the 4-ohm mono load. You can also choose to wire one 2-ohm woofer to each channel of a standard stereo amp and get the max power into a 2-ohm stereo load. Simply put, SVC 2 ohm woofers are the most versatile woofers you can purchase.

Thank you for purchasing a Cadence subwoofer. Please follow the enclosure building specifications carefully. If you have any questions you may call our speaker technical service department from 10:00 AM to 5:00 PM, Monday through Thursday, EST at 732 370 5400 or via e-mail to: cadence@cadencesound.com

X-Max = Measurement is full stroke.

All Fs measurements are for new un-exercised drivers. Expect the Fs to drop by at least 5Hz after the driver has been used for a few hours. All measurements include woofer and port displacement. The F-3dB down points listed are calculated by computer which models the F-3 in free air response. Typically you can expect the actual in car 3dB down point to be at least 10Hz lower.

REMEMBER-MEASURE TWICE, CUT ONCE!

Enclosures should be made of at least 3/4" particle board or MDF board. Be sure to glue and screw or staple all joints tightly-your box must be air tight to operate properly and efficiently.

It is impossible for us to list all the possible enclosures for these sub woofers. Just because we did not list a particular enclosure design does not mean that it is not possible. "Knowledge is power" and you will be able to design other types of enclosures by plugging in the T/S parameters supplied into your own box building software. You can also call our technical assistance line for custom box designs.

Not responsible for typographic or printing errors. The specifications and measurements are subject to change without notice. Updated 03/01.

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