



Technical Brief :Recommended enclosures for XTR3 woofers

How to Determine Which Style Enclosure is for You.

The performance of a woofer will vary depending on the type of enclosure the woofer is placed in. The Xtreme woofer will work in a variety of enclosures. Listed below are several enclosure designs, each designed to meet specific needs and wants of the end user.

1. Sealed enclosure. Offering great accuracy, good tonal quality and low bass from a small enclosure.
2. Ported enclosure. Designed to play lower bass louder than the sealed enclosure, power handling is great, and is more efficient than the sealed design.
3. Bandpass enclosure. Offering good frequency response and great overall output, however, power handling is the lowest of the three and it is also the largest enclosure of the group.

XTREME™

Specs on the Xtreme Woofers

Woofer	XTR3 8"		XTR3 10"		XTR3 12"		XTR3 15"	
Type	svc	dvc	svc	dvc	svc	dvc	svc	dvc
Nominal Impedance	4ohm	2/8ohm	4ohm	2/8ohm	4ohm	2/8ohm	4ohm	2/8ohm
RE (ohm)	3.6	1.8/7.3	3.4	2.0/7.9	3.4	2.0/7.9	3.5	2.0/7.8
Levc (mH)	0.79	0.73/2.92	1.10	1.10/4.33	1.12	1.11/4.44	1.13	1.21/4.84
Sensitivity (dB)	91	95/89	92	96/90	93	97/91	95	99/92
Fs (hz)	43	38	31	28	23	23	19	19
Qms	9.59	7.82	8.65	8.75	9.05	7.65	8.59	9.12
Qes	0.51	0.33	0.42	0.30	0.47	0.30	0.43	0.29
Qts	0.48	0.32	0.40	0.29	0.44	0.29	0.41	0.28
BL (TM)	7.2	6.6/13.2	9.2	8.2/16.4	8.7	8.5/17.0	9.5	9.2/18.4
Sd (sq.in.)	31	31	50	50	78	78	128	128
Vas (cu.ft.)	1.02	1.06	2.55	2.96	7.92	7.78	24.24	24.46
Xmax (mm)	4.25	4.25	7.75	5.25	7.75	5.25	7.75	5.25
Pmax (watts)	400	400	500	500	500	500	500	500
Outside Diameter	8.5in.	8.5in	10.5in.	10.5in.	12.5in.	12.5in.	15.5in.	15.5in.
Mounting Diameter	7.25in.	7.25in.	9.187in.	9.187in.	11.125in.	11.125in.	13.875in.	13.875in.
Mounting Depth	4.0in.	4.0in.	4.75in.	4.75in.	5.625in.	5.625in.	6.75in.	6.75in.
Basket Displacement	57cu.in.	57cu.in.	115cu.in.	115cu.in.	209cu.in.	209cu.in.	420cu.in.	420cu.in.

1. Sealed Enclosures for XTR3 Woofers

Woofer	8"svc/dvc	10"svc/dvc	12"svc/dvc	15"svc/dvc
Gross Volume	0.5 cu.ft.	0.75 cu.ft.	1.5 cu.ft.	2.5 cu.ft.
Net Volume	0.47 cu.ft.	0.68 cu.ft.	1.38 cu.ft.	2.26 cu.ft.
F3	65Hz	57Hz	46Hz	43Hz
F10	42Hz	38Hz	32Hz	31Hz
Intelli-Q Setting	45Hz @ 6dB	40Hz @ 6dB	34Hz @ 6dB	33Hz @ 6dB

2. Ported Enclosures for XTR3 Woofers

Woofer	8"svc/dvc	10"svc/dvc	12"svc/dvc	15"svc/dvc
Gross Volume	0.75 cu.ft.	1.25 cu.ft.	2.25 cu.ft.	3.25 cu.ft.
Net Volume	0.67 cu.ft.	1.14 cu.ft.	2.00 cu.ft.	2.85 cu.ft.
Port Diameter	3" Diameter	3" Diameter	4" Diameter	(2) 4" Diameter
Port Length	10" Long	10" Long	10" Long	11" Long
Intelli-Q Setting	45Hz @ 6dB	37Hz @ 5dB	35Hz @ 6dB	36Hz @ 7dB
Tuning Frequency	45Hz	37Hz	35Hz	36Hz

3. Bandpass Enclosures for XTR3 Woofers

Woofer	8"svc/dvc	10"svc/dvc	12"svc/dvc	15"svc/dvc
Gross Sealed Volume	0.4 cu.ft.	0.6 cu.ft.	1.00 cu.ft.	2.0 cu.ft.
Net Sealed Volume	0.37 cu.ft.	0.52 cu.ft.	0.92 cu.ft.	1.76 cu.ft.
Gross Vented Volume	0.45 cu.ft.	0.75 cu.ft.	1.00 cu.ft.	2.0 cu.ft.
Net Vented Volume	0.43 cu.ft.	0.64 cu.ft.	1.06 cu.ft.	1.59 cu.ft.
Port Diameter	3" Diameter	4" Diameter	4" Diameter	(3) 4" Diameter
Port Length	4" long	5" long	3" long	3" long
F3	51Hz	31Hz	33Hz	26Hz

For questions on this or any other Orion Products, call Technical Support at 1-480-705-5600.