



## Technical Brief :Recommended enclosures for XTR series2 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.

# XTR™

### Specs on the Xtreme Woofers

Woofer	XTR2 8"		XTR2 10"		XTR2 12"		XTR2 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)	3.9	2.2/7.9	3.8	2.2/8.2	3.5	2.1/7.9	3.6	2.1/7.9
Levc (mH)	0.72	0.71/1.67	1.02	0.71/2.79	1.15	0.93/3.84	1.02	0.93/3.84
Sensitivity (dB)	93	94/86	92	95/89	93	96/90	94	96/90
Fs (hz)	39	35	39	33	24	25	28	25
Qms	9.20	7.80	8.82	8.20	6.2	7.88	9.88	7.88
Qes	0.36	0.30	0.45	0.37	0.38	0.33	0.45	0.33
Qts	0.34	0.28	0.43	0.36	0.35	0.32	0.43	0.32
BL (TM)	8.8	7.9/15.8	9.42	8.2/17.3	9.3	9.3/18.2	12.2	9.3/18.2
Sd (sq.in.)	31	31	50	50	78	78	128	128
Vas (cu.ft.)	1.28	1.23	1.82	2.23	8.72	7.13	10.42	7.13
Xmax (mm)	5.82	6.04	9.78	7.48	9.78	7.48	9.78	7.48
Pmax (watts)	250	250	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	3.75in.	3.75in.	4.25in.	4.25in.	5.0in.	5.0in.	6.5in.	6.5in.
Basket Displacement	57cu.in.	57cu.in.	115cu.in.	115cu.in.	209cu.in.	209cu.in.	420cu.in.	420cu.in.

### 1. Sealed Enclosures for XTR2 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	58Hz	57Hz	54Hz	54Hz
F10	45Hz	40Hz	33Hz	33Hz
Intelli-Q Setting	45Hz @ 6dB	40Hz @ 6dB	34Hz @ 6dB	33Hz @ 6dB

### 2. Ported Enclosures for XTR2 Woofers

Woofer	8"svc/dvc	10"svc/dvc	12"svc/dvc	15"svc/dvc
Gross Volume	0.75 cu.ft.	1.5 cu.ft.	2.5 cu.ft.	4 cu.ft.
Net Volume	0.71cu.ft.	1.39 cu.ft.	2.24 cu.ft.	3.55 cu.ft.
Port Diameter	2" Diameter	3" Diameter	4" Diameter	(2) 4" Diameter
Port Length	6" Long	8.5" Long	11.5" Long	14" Long
Intelli-Q Setting	38Hz @ 6dB	34Hz @ 6dB	30Hz @ 6dB	30Hz @ 6dB
Tuning Frequency	38Hz	34Hz	30Hz	30Hz

### 3. Bandpass Enclosures for XTR2 Woofers

Woofer	8"svc/dvc	10"svc/dvc	12"svc/dvc	15"svc/dvc
Gross Sealed Volume	Bandpass	0.92 cu.ft.	0.99 cu.ft.	2.25 cu.ft.
Net Sealed Volume	enclosures	0.87 cu.ft.	0.87 cu.ft.	2.0 cu.ft.
Gross Vented Volume	are not	0.61 cu.ft.	1.18 cu.ft.	2.00 cu.ft.
Net Vented Volume	recommended	0.56 cu.ft.	1.06 cu.ft.	1.65 cu.ft.
Port Diameter	for the	4" Diameter	(2) 4" Diameter	(4) 4" Diameter
Port Length	series 2	7" long	7.5" long	12" long
F3	XTR 8"	53Hz	43Hz	43Hz

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