



TYPE-X SUBWOOFER
HAUT-PARLEUR D'EXTRÊMES GRAVES TYPE-X
APPLICATION GUIDE
GUIDE D' APPLICATION

SWX-1243D

12 Inch Dual Voice Coil Subwoofer (4Ω)+(4Ω)
Haut-parleur d'extrêmes graves à double bobine 12 po (4Ω)+(4Ω)

SWX-1043D

10 Inch Dual Voice Coil Subwoofer (4Ω)+(4Ω)
Haut-parleur d'extrêmes graves à double bobine 10 po (4Ω)+(4Ω)

Subwoofer Features and Specifications	
Features	
Size	
Power Handling (RMS/peak)	
Power Range (RMS)	
Frequency Response (Hz)	
Diaphragm	Material Design
Surround	Material Design
Spider	Material Design
Voice Coil	Material Design
Motor Structure	Pole Geometry Configuration
Frame	Material Design
Terminals	Layout Design
Tinsel Leads	Design
Gasket	Design
Enclosure Information	
Mounting Depth	
Mounting Diameter - Front Mount	
Displacement - Front Mounted**	
Added Volume - Reverse Mount(magnet out)**	
Recommended Enclosure Alignments	
Sealed Box Volume Range (Gross)	
Optimum Sealed Box	External Box Dimensions
	Gross Internal Volume
	Net Internal Volume***
	F _s , Q _{tc}
Vented Box Volume Range (Gross)	
Optimum Vented Box	External Box Dimensions
	Gross Internal Volume
	Vent Area (dimensions)
	Vent Length
	Vent Displacement
	Net Internal Volume (V _v)***
	F _s , ripple, F _s
Electro-Mechanical Parameters[#]	
Nominal Impedance	
Frequency Response	
Sensitivity (SPL@1W/1m)*	
D.C Coil Resistance (Re)	
Inductance (Le) 1kHz/20kHz	
Free Air Resonance (Fs)	
Equivalent Stiffness (Vas)	
Mechanical Q (Qms)	
Electrical Q (Qes)	
Total Q (Qts)	
Linear Excursion [(Hvc-Hag)/2], One-Way (Xmax)	
Magnetic Linear Excursion, One-Way (Xmag)	
Mechanical Excursion, Peak-to-Peak	
Gap Height (Hag)	
Coil Height (Hvc)	
Cone Area (Sd)	
Voice Coil Diameter	
Magnet Weight	

Type-X	
SWX-1043D	SWX-1243D
10"	12"
1000W/3000W	1000W/3000W
500W-1000W	500W-1000W
26Hz-200Hz	24Hz-200Hz
Kevlar Rohacell® Layered Composite	
1-piece Parabolic with Vented Force Transfer Assembly	
Injection Moulded Santoprene®	
High Amplitude Multi-Roll (Pat.Pending)	
Nomex®	
Mirrored Progressive	
220°C Aluminum Wire on Twin-Wall Aluminum Former (Patent #6,292,079)	
6-Layer Dual 4Ω Voice Coil with Inner/Outer Winding	
Compound Radius Curve (Patent #6,639,993) with T-Drive	
Billet Copper Shorting Sleeves with Heat Dissipation Plate (Pat. Pending)	
Cast Aluminum	
Perimeter Vented Exo-Frame (Pat. Pending) with Integrated Spider Landing (Patent #6,678,387)	
One Side	
Insert Terminal Blocks with High Current Voice Coil Configuration Jumper	
Reinforced Layer Spider Integration (Patent # 6,810,988)	
Concealed Mount Design with Front/Rear Sealing Gaskets	
218 mm (8.6")	219 mm (8.6")
231 mm (9.1")	277 mm (10.9")
0.162 ft ³	0.194 ft ³
0.062 ft ³	0.079 ft ³
Sealed, Vented, Bandpass	
0.5-1.0 ft ³	0.65-1.25 ft ³
12.5" x 12.5" x 11"	14.5" x 14.5" x 11.75"
0.65 ft ³	1 ft ³
0.49 ft ³	0.8 ft ³
42 Hz, 0.74	36 Hz, 0.94
0.8-1.5 ft ³	1.0-2.0 ft ³
12.5" x 14.5" x 18.5"	13.5" x 15.5" x 20"
1.4 ft ³	1.8 ft ³
11 in ² (11" x 1")	12 in ² (12" x 1")
22 in.	24 in.
0.24 ft ³	0.29 ft ³
1 ft ³	1.3 ft ³
29Hz, 4.7dB, 36Hz	28Hz, 4.5dB, 32Hz
4Ω+4Ω	4Ω+4Ω
26 - 200Hz	24 - 200Hz
82 dB	84 dB
3.5Ω+3.5Ω	3.5Ω+3.5Ω
3.28mH / 1.93mH	3.25mH / 1.92mH
31Hz	29Hz
18L (0.63 ft ³)	38L (1.34 ft ³)
6.41	7.48
0.59	0.64
0.54	0.59
19 mm	19 mm
22 mm	22 mm
75 mm	75 mm
12 mm	12 mm
50 mm	50 mm
360 cm ²	529 cm ²
80 mm (3.1")	80 mm (3.1")
119 oz	130 oz

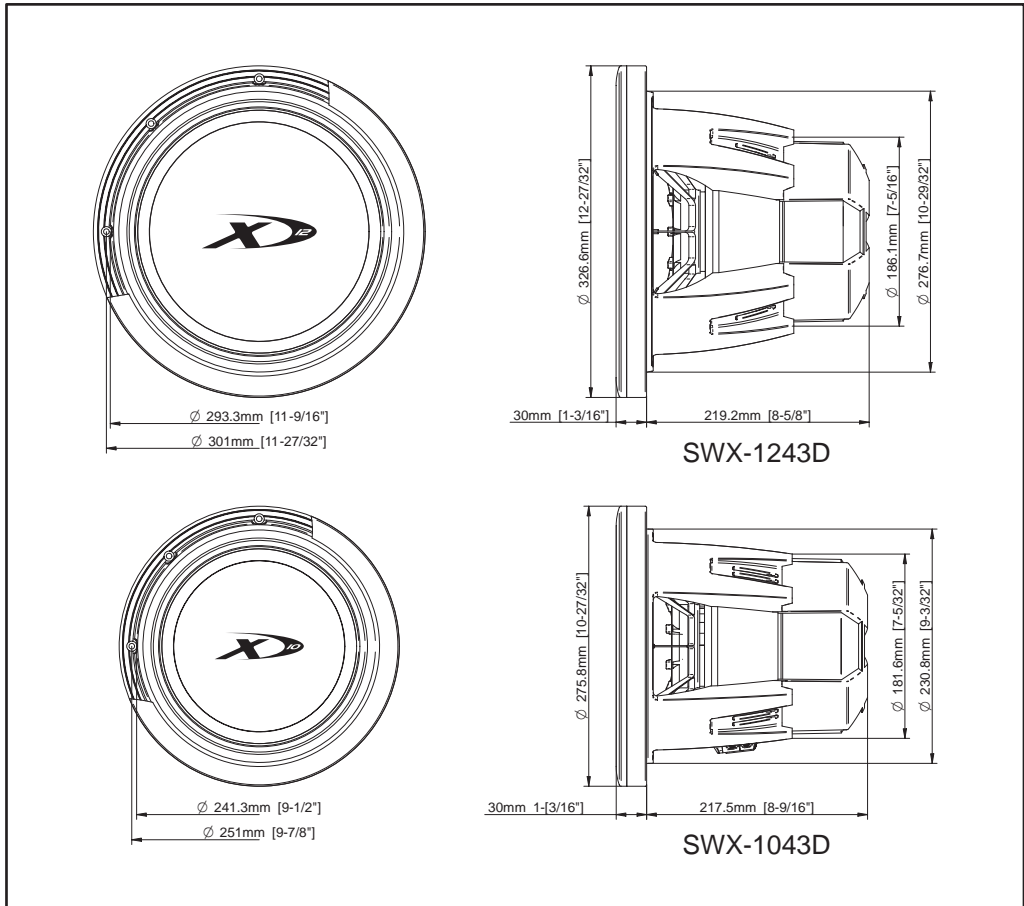
Note: All specifications are subject to change without notice

All Thiele-Small parameters measured/calculated with voice coils connected in series, after break-in.

* This commonly misunderstood specification should not be used as a reference for subwoofer output capability.

** Based upon 3/4" (19mm) baffle thickness.

*** Includes all internal driver and vent displacement, based upon 3/4" (19mm) MDF construction and standard front mounting.



ALPINE®

ALPINE ELECTRONICS, INC.
 Tokyo office: 1-1-8 Nishi Gotanda,
 Shinagawa-ku, Tokyo 141, Japan
 Tel: (03) 3494-1101

ALPINE ELECTRONICS OF AMERICA, INC.
 19145 Gramercy Place, Torrance,
 California 90501, U.S.A.
 Tel: (310) 326-8000

ALPINE ELECTRONICS OF CANADA, INC.
 777 Supertest Road Toronto,
 Ontario L3J 2M9, Canada
 Tel: (416) 736-6211

ALPINE ELECTRONICS OF AUSTRALIA PTY. LTD.
 6-8 Fiveways Boulevard Keysborough,
 Victoria 3173, Australia
 Tel: 61 (3) 9769-0000

ALPINE ELECTRONICS DE ESPAÑA, S.A.
 Portal de Gamarra 36, Pabellon 32, 01013
 Vitoria (Alava). Apdo: 133, Spain
 Tel: 34 (945) 283588

ALPINE ELECTRONICS GmbH
 Frankfurter Ring 117, 80807 Monchen
 Germany
 Tel: 089-32 42 640

ALPINE ELECTRONICS MANUFACTURING OF EUROPE
 H-2051 Biatorbagy, orfzag ut. 2, Hungary
 Tel: 36 (23) 311-923

ALPINE ELECTRONICS OF U.K., LTD.
 'ALPINE House, Earplace Business Park
 Fletchamstead highway Coventry CV4 9TW, U.K.
 Tel: 02476-719-500

ALPINE ELECTRONICS FRANCE S.A.R.L.
 98, Rue de la Bella Etoile, Z.I. Paris Nord II
 B.P. 50016, 95945, Roissy, C.D.G. Cédex,
 France
 Tel: 33 (1) 4863-8989

ALPINE ITALIA S.p.A.
 Viale C. Colombo 8, 20090 Trezzano Sul
 Naviglio, Italy
 Tel: 39 (02) 484781