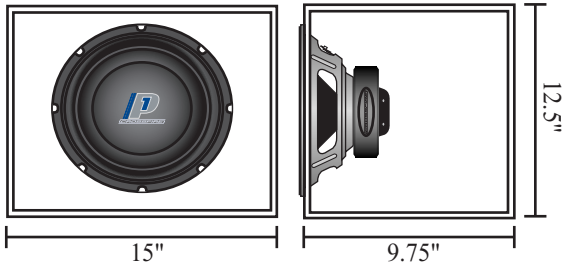
Enclosure Recommendations

Optimum Sealed Volume

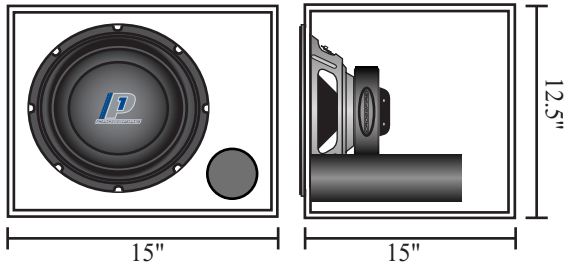
Internal volume: .65ft3 / 18.41L
Enclosure "Q": 0.78
-3dB response: 42Hz
Efficiency: 85.4dB
Maximum power handling: 350 watts



Cu. feet/liters	"Q"	-3dB	Efficiency	PE
small sealed volume: **.42/11.89**	**.92**	**44Hz**	**86.1dB**	**350 watts**
large sealed volume: **.83/23.5**	**.71**	**41Hz**	**85.3dB**	**350 watts**

Optimum Vented Volume

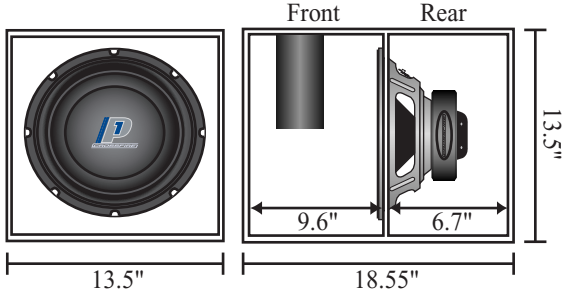
Internal volume: 1.1ft3 / 31.15L
Tuning frequency: 29Hz
Port (D x L): 3" x 18"
-3dB response: 29Hz
Efficiency: 87.2dB
Maximum power handling: 275watts



Cu. feet/liters	Tune to	Port	-3dB	Efficiency	PE
small vented volume: **.8/22.65**	**33Hz**	**3" x 19.3"**	**34Hz**	**88.2dB**	**275watts**
large vented volume: **1.4/39.64**	**28Hz**	**3" x 14.8"**	**26Hz**	**87dB**	**300watts**

Optimum Bandpass Volume

Front volume: .8ft3 / 22.65L
Rear volume: .5ft3 / 14.16L
Tuning frequency: 60Hz
Port (D x L): 4" x 8.35"
-3dB response: 41 - 81Hz
Efficiency: 90.8dB
Maximum power handling: 350w



Front cu. ft/liters	Rear cu.ft/liters	Tune to	Port	-3dB	Efficiency	PE
.71 /20.11	**.3 / 8.5**	**70Hz**	**4" x 6.3"**	**47 – 97Hz**	**92dB**	**350watts**
.8 / 22.65	**.65 / 18.41**	**55Hz**	**4" x 10.5"**	**37 – 74Hz**	**89.1dB**	**350watts**

*Note: Dimensions given require the use of 0.75" (19mm) board.
**Be sure to add in .056ft3 / 1.59L for driver displacement in all "Other"

Damping Material

The most common damping materials used are Dacron and Polyfill. Reclaimed fiber underlay has been discovered to be an excellent substitute especially when glued directly to the walls of the enclosure. Fiberglass may be used, but please limit usage to sealed enclosures only. When used in vented/bandpass enclosures, fiberglass fibers escaping through the port may be hazardous to your health.

	DACRON/POLYFILL	*UNDERLAY*	*FIBERGLASS*
SEALED ENCLOSURE	*loosely fill the enclosure*	*line 5 walls*	*line 5 walls*
VENTED ENCLOSURE	*line 3-5 walls*	*line 1-3 wall*	*Please limit the use of*
BANDPASS (sealed chamber)	*line 3 walls*	*line 1-3 wall*	*fiberglass to sealed*
BANDPASS (vented chamber)	*line 1 wall (optional)*	*line 1 wall (optional)*	*enclosures only*

Specifications

Model	P110D
Driver description	10" Subwoofer, Dual Voice Coil
Mounting depth, in./mm	5.31/135
Cutout dimensions, in./mm	9.02/229
Impedance	4 ohms per coil
Nominal power handling	200 watts
Maximum power handling (PE)	350 watts
Dynamic power handling	800 watts
Voice coil – size	2.25", 4 layer
Magnet weight	48 oz.
Frequency response	22Hz to 250Hz
Resonance frequency (fs)	22.6Hz
QTS	.382
QMS	5.565
QES	.410
VAS, ft./liter	2.04/57.68
X-max, in./mm	.43/11
Peak to peak, in./mm	1.4/35.6
Efficiency (2.83V/1M)	86dB

Power Ratings

Rating the power handling of subwoofers is not a difficult task. However, understanding power ratings is often confusing. Many times the Maximum Power Ratings are viewed as the RMS power handling of the driver, when in actuality Maximum is generally the break point of the driver. This has lead Crossfire to come up with a system to rating the power necessary to drive our subwoofers. Please read the following cautiously before choosing your amplifier.

Nominal power handling

-Nominal power handling is the power rating given by Crossfire at which the subwoofer will experience minimal mechanical degradation over time when using a recommended enclosure. In other words, this is the recommended power to be used per woofer to assure long life.

Maximum power handling (PE)

-Maximum power handling is the power rating given by Crossfire at which the subwoofer could experience a high amount of mechanical degradation that may lead to possible failure over time when using a recommended enclosure. In other words, do not exceed this power level for extended periods of time.

Dynamic power handling

-Dynamic power handling is the power rating given by Crossfire for peak transients and short bursts. Continuous playing at or above this level will cause mechanical failure and/or thermal failure. In other words, this power level should never be attained with the exceptions of approved SPL competition vehicles. This could possibly void your warranty.