

SPL ELF Woofers

Congratulations on your purchase of one of the finest woofers available for your vehicle today.

SPL brings you a woofer line that not only sounds good, but also comes to you at an affordable price with features that you only see on a woofer double in price. Look, listen and compare!

Please take a few moments to fill out the warranty card and review this manual before installing this woofer for proper connections and box sizes.

Design Features

Chrome stamped basket			
Black PP cone			
Chrome front & back plate			
Foam rubber slant surround			
Black spider			
Chrome push terminals			
Dual 4ohm voice coil			
SPL:	10" – 91 dB	12" – 92 dB	15" – 93 dB
Magnet size:	10"- 55oz.	12" – 60oz.	15" – 80oz.
Kapton voice coil:	10" - 1.5"	12" - 1.5"	15" - 2"
Power (RMS watts):	10" – 500	12" – 500	15" - 700

Thiele / Small Parameters

	<u>ELF-10</u>	<u>ELF-12</u>	<u>ELF-15</u>
Fs	31.9 Hz	29.05 Hz	23.03 Hz
Vas	1.96 Cu. Ft.	3.61 Cu. Ft.	6.88 Cu. Ft.
Qms	4.014	4.407	7.05
Qes	0.485	0.543	0.4653
Qts	0.4323	0.4836	0.7365
Xmax	0.3"	0.3"	0.3"

Recommended box sizes

Model	Sealed Box Size	Ported Box Size	Tune Freq.	# of Ports	Port (dia x length)
ELF-10	.5 cubic feet	1.6 cubic feet	35 Hz	1	3" x 7.75"
ELF-12	1.5 cubic feet	2.1 cubic feet	30 Hz	1	3" x 8.3"
ELF-15	2.5 cubic feet	4.25 cubic feet	29 Hz	1	3" x 3.2"

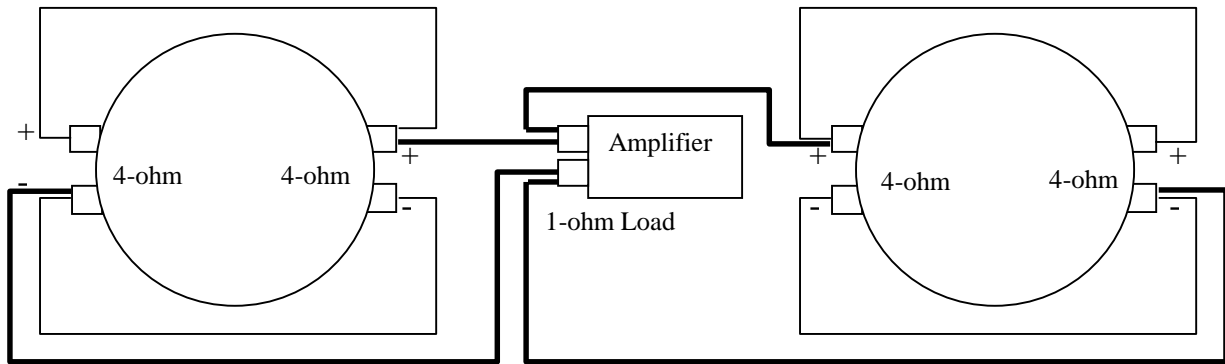
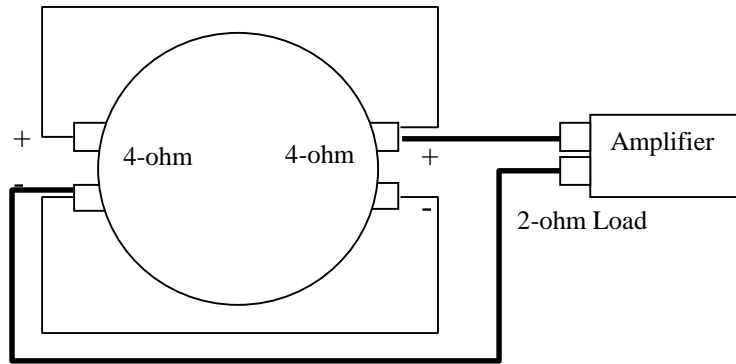
Building the Enclosure

- Determine the dimensions of your enclosure.
- Be certain the box dimensions that you have designed will fit in the location you have chosen in your vehicle. Sometimes making a cardboard box with the same outside dimensions is helpful.
- It is recommended to use $\frac{3}{4}$ inch thick MDF (medium density fiberboard) for your box.
- Use a "T" square to verify precise right angle cuts before you assemble the box.
- Use high quality wood glue and screws to assemble the box to guarantee an airtight box that will not come apart due to excess vibration and pressure.
- It is recommended for sealed enclosures to stuff the interior of the box about 50 – 75% fiberglass insulation or Dacron fiberfill for increased sound damping and woofer performance.
- For ported enclosures, it is recommended to staple 1" thick fiberglass insulation to the interior walls of your box.
- Use slide on connectors for spade style connectors or bare wire for push and screw terminals. Do not solder the wires to the factory connectors as this may cause damage to the voice coil or tinsel lead and may void your warranty.

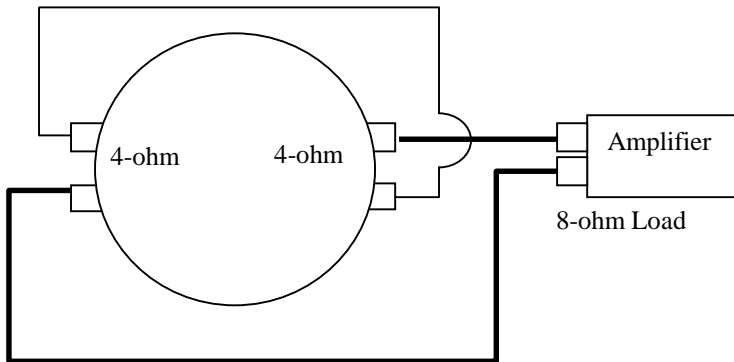
Recommended wiring

The following page will give you a few different options to match the impedance of the woofers to the impedance capability of the amplifier. Please look and follow the diagrams closely to insure maximum woofer performance.

Parallel voice coil configuration



Series voice coil configuration



Series/Parallel voice coil configuration

