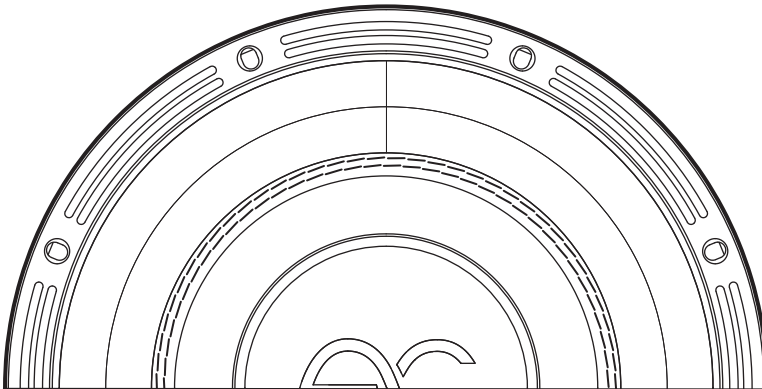


Features

- High excursion for ultra low bass
- Efficient heavy duty motor design
- Removable subwoofer grille
- Structurally rigid heavy duty voice coil
- Fiber matrix paper cone with Mica coating
- Dual damping system for linear bass reproduction
- Dual Dust cap system for enclosure compression control
- Bigfoot Approved



Spike™ Series

HIGH-PERFORMANCE SUBWOOFER

SPK-8S2 | SPK-8S4 | SPK-10S2 | SPK-10S4 | SPK-12S2 | SPK-12S4



Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not submerge this apparatus in water.
6. Clean only with a dry cloth.
7. **WARNING:** The subwoofer enclosure must be properly secured in the vehicle. Improper installation may lead to permanent injury or death. Installation of the speaker enclosure must be done with great care by qualified personnel, to prevent damage to fuel lines, power and other electrical wiring, hydraulic brake lines, and other systems, that might compromise vehicle safety.
8. Use speaker wire of sufficient size to ensure adequate current to the speaker. For Spike Series Subwoofers, this means 10-14 gauge speaker wire.
9. To prevent excessive cone excursion and potential damage to the subwoofer is it advisable to use a infrasonic (subsonic) filter set 1/2 octave below Fb. (Hz)
10. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as the power input terminals are damaged, objects have fallen into the apparatus, does not operate normally, or has been dropped.
11. Not tested for use in outer space.
12. Exposure to high sound pressure levels may lead to permanent hearing loss. Take every precaution to protect your hearing.

The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



Recycling notice: If the time comes and this apparatus has fulfilled its destiny, do not throw it out into the trash. It has to be carefully recycled for the good of mankind, by a facility specially equipped for the safe recycling of electronic apparatus. Please contact your local or state recycling leaders for assistance in locating a suitable nearby recycling facility. Or, contact us and we might be able to repair it for you.



Enclosure Talk

Right on! You got yourself a shiny new AudioControl subwoofer, or maybe two. After you're done admiring the quality workmanship and attention to detail, you need to get 'er in a proper enclosure. Enclosure is just a fancy name for a speaker box. Below are some tips you should consider before buying or building an enclosure. If you're not into math, or have trouble plugging in power tools, your best bet is to seek out a qualified AudioControl dealer. They have the skills, experience and specialized tools to get the bass bumpin' and they usually smell alright, too.

Sealed vs. Ported Enclosure

Aaahh... the age old question: Which is better, a sealed or ported enclosure? The answer usually boils down to a few things; available space in the vehicle, music listening preference and the speaker manufacturer's recommendation for enclosure type. Below are a few characteristics of sealed and ported enclosures:

Sealed Enclosures

- Smaller enclosure size
- Excellent transient response
- Less output per watt, but punchier, tighter sound
- Lower dynamic output

Ported/Vented Enclosure

- Larger enclosure size
- Extended lower frequency response
- More bass output per watt
- Better dynamic output

If you have the space, we recommend a slot vented enclosure for the best all-around bass experience.

Enclosure Size... It Matters

Once you decide on a sealed or ported enclosure, you can fine-tune the size of the enclosure to fit your vehicle space and listening habits. For both sealed and ported enclosures, we list recommended size ranges, (MIN - IDEAL - MAX) for each subwoofer size in the following pages. Whether buying pre-made or designing and building a custom enclosure, try to stay within these parameters for the best overall performance. Below is the effect enclosure size has on the overall sound.

MIN IDEAL MAX The MIN value is the smallest recommended enclosure size. It provides the most compact size, but sacrifices some low bass response. It generally provides punchy, tight bass that is great for Rock and Country music.

MIN IDEAL MAX The IDEAL value is recommended for most listeners. Excellent blend of low bass, with accurate and strong overall output. Suited well for Pop and R&B music.

MIN IDEAL MAX The MAX value is the largest recommended enclosure size. It's big, but provides exceptional bass output. Perfect for all you Hip Hop, and EDM fans.

Enclosure size recommendations do not include driver and / or port displacement.

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SPK-8S2 Specifications

Thiele/Small Parameters

Nominal Impedance (Z)	2 ohms
DC Resistance (Re)	1.6 ohms
Resonance Frequency (Fs)	51.6241 Hz
Piston Area (Sd)	0.0194 m ²
Force Factor (BL)	9.7018 T.m
Mechanical Q Factor (Qms)	5.444
Electrical Q Factor (Qes)	0.525
Total Q Factor (Qts)	0.4788
Sensitivity 1W/M (SPL)	83.3836
Mechanical Comp (Cms)	0.0998 mm/N
Moving Mass (Mms)	95.2145g
Linear Excursion (Xmax)	8.5 mm
Volume Acoustic Comp (Vas)	5.2241 Ltr/0.1845 cu ft
Reference Efficiency (NO.)	0.1314%
RMS Power (Pe)	350 Watts
Frequency Response	30-500 Hz
Voice Coil Diameter	2.0 in/50.8 mm
Displacement	0.05 cu ft/ 1.44 Ltr

	MIN	IDEAL	MAX
Continuous Power Handling (watts RMS)	200	350	500

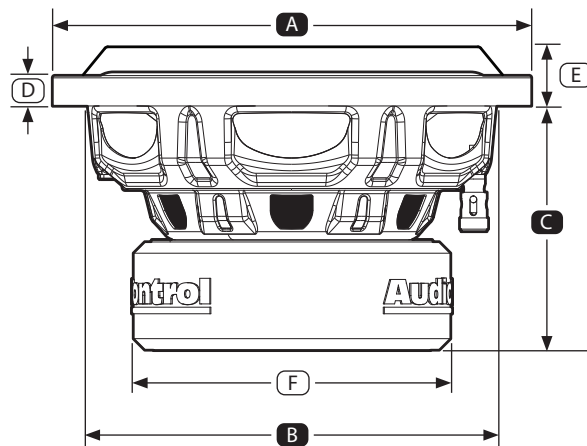
Sealed Enclosure Range (cu ft)	0.25	0.5	0.75
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Ported Enclosure Range (cu ft)	0.5	0.9	1.0
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Ported Enclosure Tuning Range (Hz)	37	40	45
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Dimensions

Overall Diameter (A)	8.425 in/ 214 mm
Cut Out Diameter (B)	7.25 in/ 184 mm
Mounting Depth (C)	4.291 in/ 109 mm
Mounting Height (w/o Grille) (D)	0.55 in / 14 mm
Mounting Height (w/ Grille) (E)	1.18 in / 30 mm
Motor Diameter (w/ Cover) (F)	5.55 in / 141 mm



SPK-8S4 Specifications

Thiele/Small Parameters

Nominal Impedance (Z)	4 ohms
DC Resistance (Re)	3.2 ohms
Resonance Frequency (Fs)	60.3665 Hz
Piston Area (Sd)	0.0194 m ²
Force Factor (BL)	11.3310 T.m
Mechanical Q Factor (Qms)	5.4933
Electrical Q Factor (Qes)	0.8733
Total Q Factor (Qts)	0.7535
Sensitivity 1W/M (SPL)	81.9876
Mechanical Comp (Cms)	0.0752 mm/N
Moving Mass (Mms)	92.3784 g
Linear Excursion (Xmax)	8.5 mm
Volume Acoustic Comp (Vas)	3.9378 Ltr/ 0.1390 Cu ft
Reference Efficiency (NO.)	0.0952%
RMS Power (Pe)	350 Watts
Frequency Response	30-500 Hz
Voice Coil Diameter	2.0 in/50.8 mm
Displacement	0.05 cu ft/ 1.44 Ltr

Continuous Power Handling (watts RMS) MIN 200 IDEAL 350 MAX 500

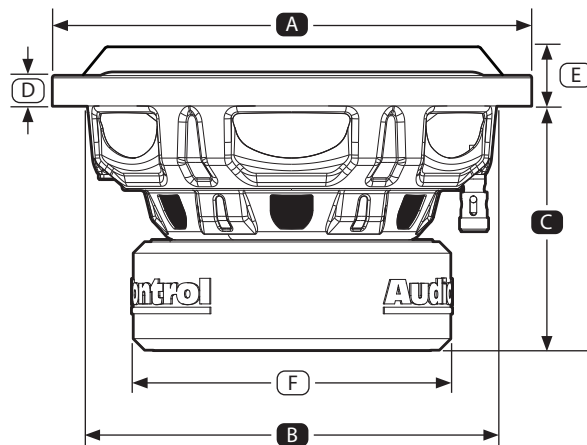
Sealed Enclosure Range (cu ft) 0.25 0.5 0.75

Ported Enclosure Range (cu ft) 0.5 0.9 1.0

Ported Enclosure Tuning Range (Hz) 37 40 45

Dimensions

Overall Diameter (A)	8.425 in/ 214 mm
Cut Out Diameter (B)	7.25 in/ 184 mm
Mounting Depth (C)	4.291 in/ 109 mm
Mounting Height (w/o Grille) (D)	0.55 in / 14 mm
Mounting Height (w/ Grille) (E)	1.18 in / 30 mm
Motor Diameter (w/ Cover) (F)	5.55 in / 141 mm



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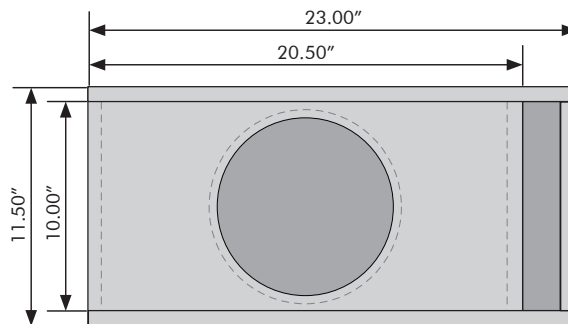
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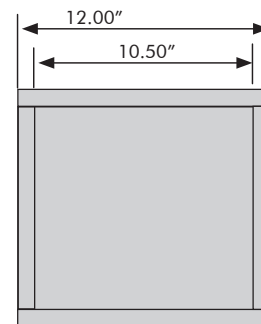
SPK-8S2/8S4 Ported Enclosure

Specifications

External Dimensions.....	23.00" W × 11.50"H × 12.00"D
Net Internal Volume	0.89 ft³
Total Internal Volume.....	1.22 ft ³
Gross External Volume	1.84 ft ³
Material Thickness.....	0.75"
Tuning Frequency.....	40 Hz
Port Area.....	17.50 inch ²
Port Inlet.....	1.75"W × 10.00"H
Port Length	28.00"
F3 (Hz)	34



FRONT VIEW

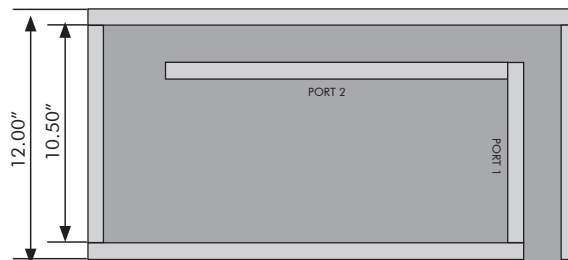


LEFT SIDE

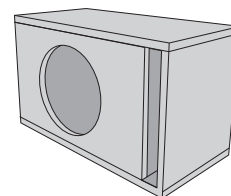
Material Prep

Top / Bottom	23.00" × 12.00"	2
Front	20.50" × 10.00"	1
Rear	23.00" × 10.00"	1
Left	10.50" × 10.00"	1
Right	11.25" × 10.00"	1
Port 1	8.75" × 10.00"	1
Port 2	16.00" × 10.00"	1

*Please note there are no fingers mentioned in the list above. Cut safe my friends.



TOP VIEW



SPK-8S2/8S4 Sealed Enclosure

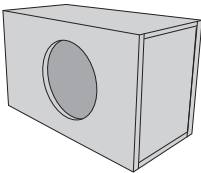
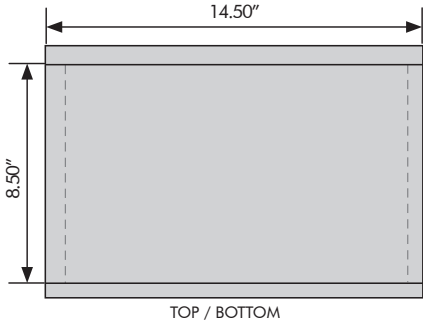
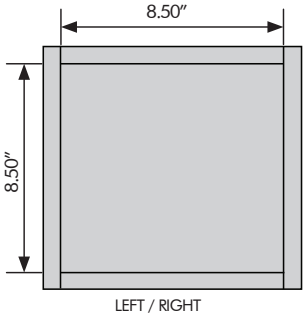
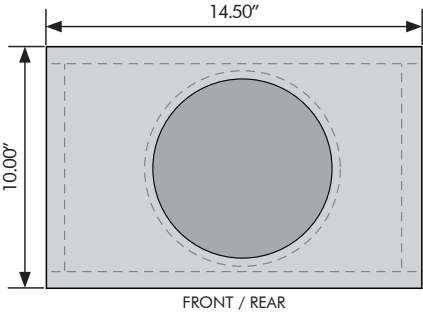
Specifications

External Dimensions..... 14.50" W × 10.00"H × 10.00"D
Net Internal Volume0.49 ft3
Total Internal Volume.....0.54 ft3
Gross External Volume0.84 ft3
Material Thickness.....0.75"
F3 (Hz).....69.04
Qtc.....0.86

Material Prep

Front / Rear	14.50" × 10.00"	2
Top / Bottom	14.50" × 8.50"	2
Left / Right	8.50" × 8.50"	2

**Please note there are no fingers mentioned in the list above. Cut safe my friends.*





SPK-10S2 Specifications

Thiele/Small Parameters

Nominal Impedance (Z)	2 ohms
DC Resistance (Re)	1.6 ohms
Resonance Frequency (Fs)	38.4879 Hz
Piston Area (Sd)	0.0314 m ²
Force Factor (BL)	11.0788 T.m
Mechanical Q Factor (Qms)	6.1223
Electrical Q Factor (Qes)	0.6341
Total Q Factor (Qts)	0.5746
Sensitivity 1W/M (SPL)	82.2488
Mechanical Comp (Cms)	0.0850 mm/N
Moving Mass (Mms)	201.1450 g
Linear Excursion (Xmax)	14 mm
Volume Acoustic Comp (Vas)	11.7161 Ltr/ 0.4137 cu ft
Reference Efficiency (NO.)	0.1011%
RMS Power (Pe)	500 Watts
Frequency Response	20-200 Hz
Voice Coil Diameter	2.5 in/63.5 mm
Displacement	0.0626 cu ft/ 1.771 Ltr

Continuous Power Handling (watts RMS)

MIN IDEAL MAX

300 500 700

Sealed Enclosure Range (cu ft)

0.75 0.90 1.15

Ported Enclosure Range (cu ft)

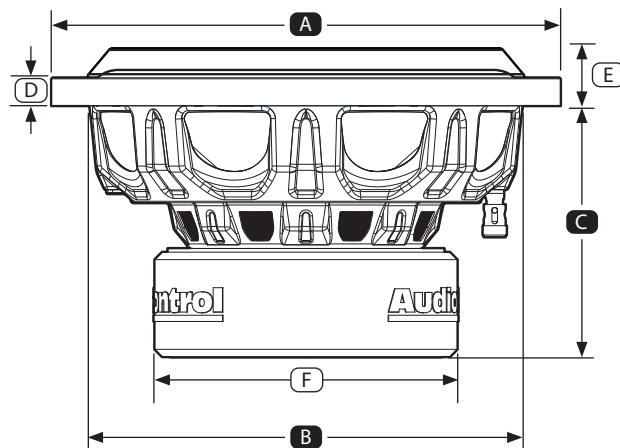
0.75 1.0 1.25

Ported Enclosure Tuning Range (Hz)

32 37 43

Dimensions

Overall Diameter (A)	10.748 in/ 273 mm
Cut Out Diameter (B)	9.25 in/ 234 mm
Mounting Depth (C)	5.32 in/ 135 mm
Mounting Height (w/o Grille) (D)	0.59 in / 15 mm
Mounting Height (w/ Grille) (E)	1.30 in / 33 mm
Motor Diameter (w/ Cover) (F)	.641 in / 163 mm



SPK-10S4 Specifications

Thiele/Small Parameters

Nominal Impedance (Z)	4 ohms
DC Resistance (Re)	3.2 ohms
Resonance Frequency (Fs)	41.2638 Hz
Piston Area (Sd)	0.0314 m ²
Force Factor (BL)	13.6742 T.m
Mechanical Q Factor (Qms)	4.83
Electrical Q Factor (Qes)	0.6576
Total Q Factor (Qts)	0.5788
Sensitivity 1W/M (SPL)	83.7199
Mechanical Comp (Cms)	0.1004 mm/N
Moving Mass (Mms)	148.1991 g
Linear Excursion (Xmax)	14 mm
Volume Acoustic Comp (Vas)	13.8342 Ltr/ 0.4885 Cu ft
Reference Efficiency (NO.)	0.1419%
RMS Power (Pe)	500 Watts
Frequency Response	20-200 Hz
Voice Coil Diameter	2.5 in/63.5 mm
Displacement	0.0626 cu ft/ 1.771 Ltr

	MIN	IDEAL	MAX
Continuous Power Handling (watts RMS)	300	500	700

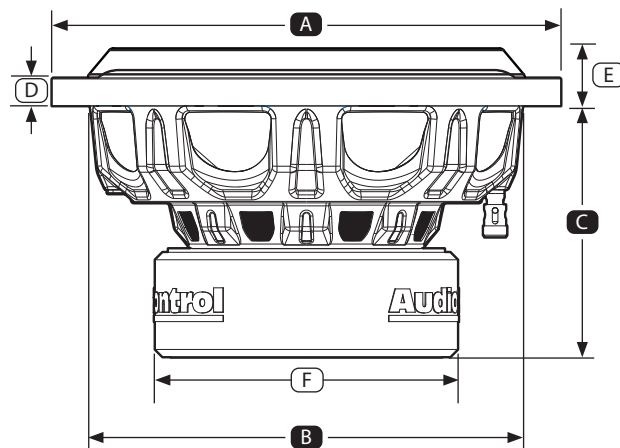
Sealed Enclosure Range (cu ft)	0.75	0.90	1.15
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Ported Enclosure Range (cu ft)	0.75	1.0	1.25
--------------------------------	------	-----	------

Ported Enclosure Tuning Range (Hz)	32	37	43
------------------------------------	----	----	----

Dimensions

Overall Diameter (A)	10.748 in/ 273 mm
Cut Out Diameter (B)	9.25 in/ 234 mm
Mounting Depth (C)	5.32 in/ 135 mm
Mounting Height (w/o Grille) (D)	0.59 in / 15 mm
Mounting Height (w/ Grille) (E)	1.30 in / 33 mm
Motor Diameter (w/ Cover) (F)	.641 in / 163 mm



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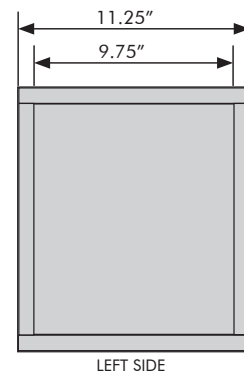
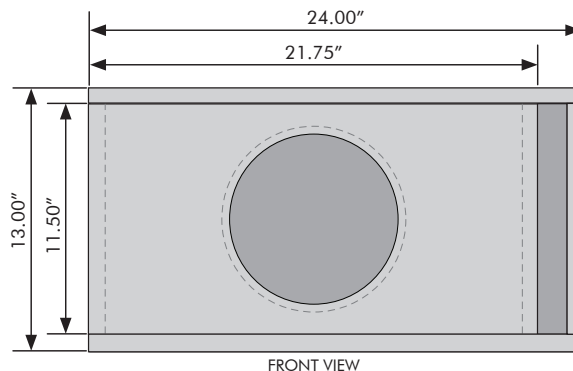
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SPK-10S2/10S4 Ported Enclosure

Specifications

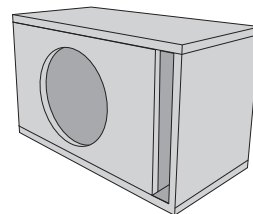
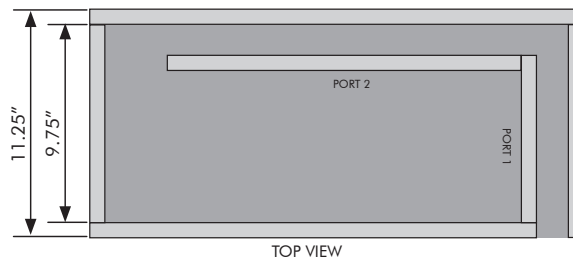
External Dimensions.....	24.00" W × 13.00"H × 11.25"D
Net Internal Volume	1.01 ft³
Total Internal Volume.....	1.36 ft ³
Gross External Volume	2.03 ft ³
Material Thickness.....	0.75"
Tuning Frequency.....	37 Hz
Port Area.....	17.25 inch ²
Port Inlet.....	1.50"W × 11.50"H
Port Length	28.50"
F3 (Hz)	30



Material Prep

Top / Bottom	24.00" × 11.25"	2
Front	21.75" × 11.50"	1
Rear	24.00" × 11.50"	1
Left	9.75" × 11.50"	1
Right	10.50" × 11.50"	1
Port 1	8.25" × 11.50"	1
Port 2	17.25" × 11.50"	1

*Please note there are no fingers mentioned in the list above. Cut safe my friends.



SPK-10S2/10S4 Sealed Enclosure

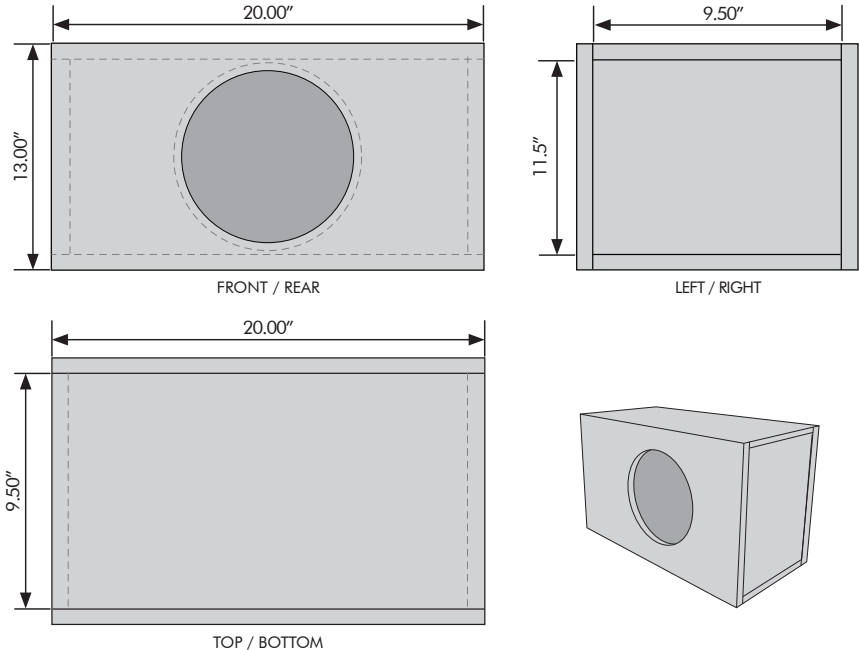
Specifications

External Dimensions.....	20.00"W × 13.00"H × 11.00"D
Net Internal Volume	1.11 ft3
Total Internal Volume.....	1.17 ft3
Gross External Volume	1.66 ft3
Material Thickness.....	0.75"
F3 (Hz).....	45.96
Qtc.....	0.705

Material Prep

Front / Rear	20.00" × 13.00"	2
Top / Bottom	20.00" × 9.50"	2
Left / Right	11.50" × 9.50"	2

**Please note there are no fingers mentioned in the list above. Cut safe my friends.*





SPK-12S2 Specifications

Thiele/Small Parameters

Nominal Impedance (Z)	2 ohms
DC Resistance (Re)	1.6 ohms
Resonance Frequency (Fs)	37.3460 Hz
Piston Area (Sd)	0.0491 m ²
Force Factor (BL)	11.0117 T.m
Mechanical Q Factor (Qms)	7.6824
Electrical Q Factor (Qes)	0.7362
Total Q Factor (Qts)	0.6718
Sensitivity 1W/M (SPL)	84.6196
Mechanical Comp (Cms)	0.0764 mm/N
Moving Mass (Mms)	237.7651 g
Linear Excursion (Xmax)	14 mm
Volume Acoustic Comp (Vas)	25.7006 Ltr/ 0.9076 cu ft
Reference Efficiency (NO.)	0.1746%
RMS Power (Pe)	500 Watts
Frequency Response	20-200 Hz
Voice Coil Diameter	2.5 in/63.5 mm
Displacement	0.0885 cu ft/ 2.506 Ltr

Continuous Power Handling (watts RMS)

MIN	IDEAL	MAX
300	500	700

Sealed Enclosure Range (cu ft)

0.85	1.0	1.5
------	-----	-----

Ported Enclosure Range (cu ft)

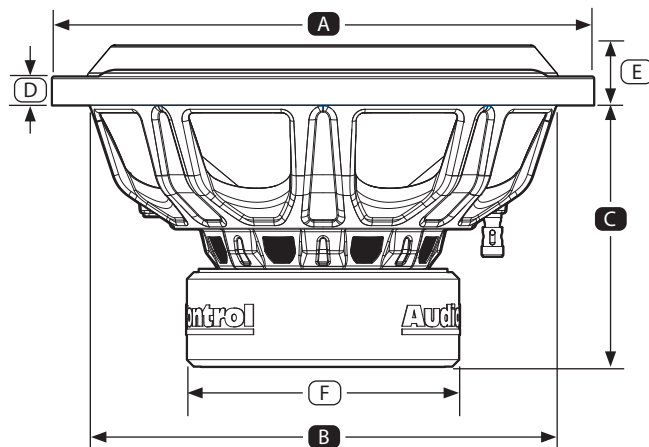
1.25	1.75	2.75
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Ported Enclosure Tuning Range (Hz)

30	39	40
----	----	----

Dimensions

Overall Diameter (A)	12.76 in/ 324 mm
Cut Out Diameter (B)	11.125 in/ 282 mm
Mounting Depth (C)	6.14 in/ 156 mm
Mounting Height (w/o Grille) (D)	0.68 in / 17.3 mm
Mounting Height (w/ Grille) (E)	1.437 in / 36.5 mm
Motor Diameter (w/ Cover) (F)	.641 in / 163 mm



SPK-12S4 Specifications

Thiele/Small Parameters

Nominal Impedance (Z)	4 ohms
DC Resistance (Re)	3.2 ohms
Resonance Frequency (Fs)	40.4239 Hz
Piston Area (Sd)	0.0491 m ²
Force Factor (BL)	13.7286 T.m
Mechanical Q Factor (Qms)	6.5823
Electrical Q Factor (Qes)	0.8207
Total Q Factor (Qts)	0.7297
Sensitivity 1W/M (SPL)	85.4588
Mechanical Comp (Cms)	0.0815 mm/N
Moving Mass (Mms)	190.3035 g
Linear Excursion (Xmax)	14 mm
Volume Acoustic Comp (Vas)	27.4067 Ltr/ 0.9678 cu ft
Reference Efficiency (NO.)	0.2118%
RMS Power (Pe)	500 Watts
Frequency Response	20-200 Hz
Voice Coil Diameter	2.5 in/63.5 mm
Displacement	0.0885 cu ft/ 2.506 Ltr

Continuous Power Handling (watts RMS) MIN IDEAL MAX
 300 500 700

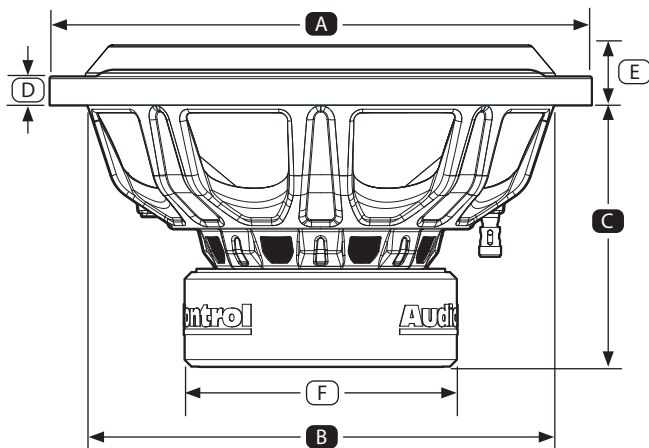
Sealed Enclosure Range (cu ft) 0.85 1.0 1.5

Ported Enclosure Range (cu ft) 1.25 1.75 2.75

Ported Enclosure Tuning Range (Hz) 30 39 40

Dimensions

Overall Diameter (A)	12.76 in/ 324 mm
Cut Out Diameter (B)	11.125 in/ 282 mm
Mounting Depth (C)	6.14 in/ 156 mm
Mounting Height (w/o Grille) (D)	0.68 in / 17.3 mm
Mounting Height (w/ Grille) (E)	1.437 in / 36.5 mm
Motor Diameter (w/ Cover) (F)	.641 in / 163 mm



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SPK-12S2/12S4 Ported Enclosure

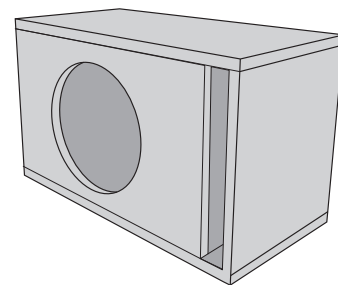
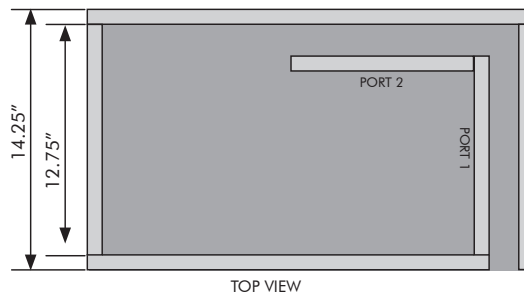
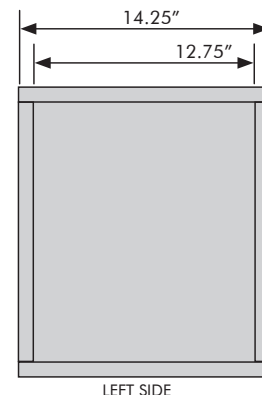
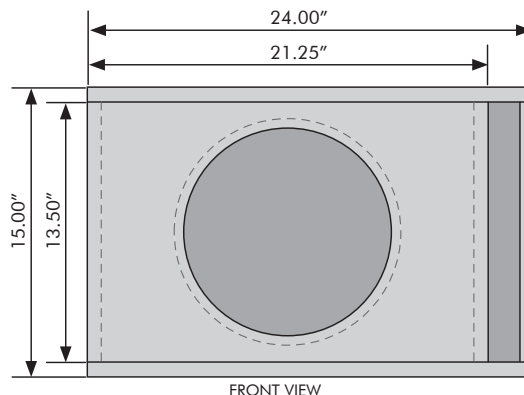
Specifications

External Dimensions.....	24.00" W × 15.00"H × 14.25"D
Net Internal Volume	1.77 ft3
Total Internal Volume.....	2.18 ft3
Gross External Volume	2.97 ft3
Material Thickness.....	0.75"
Tuning Frequency.....	39 Hz
Port Area.....	27.00 inch ²
Port Inlet.....	2.00"W × 13.50"H
Port Length	20.75"
F3 (Hz)	30

Material Prep

Top / Bottom	24.00" × 14.25"	2
Front	21.25" × 13.50"	1
Rear	24.00" × 13.50"	1
Left	12.75" × 13.50"	1
Right	13.50" × 13.50"	1
Port 1	10.75" × 13.50"	1
Port 2	6.50" × 13.50"	1

*Please note there are no fingers mentioned in the list above. Cut safe my friends.



SPK-12S2/12S4 Sealed Enclosure

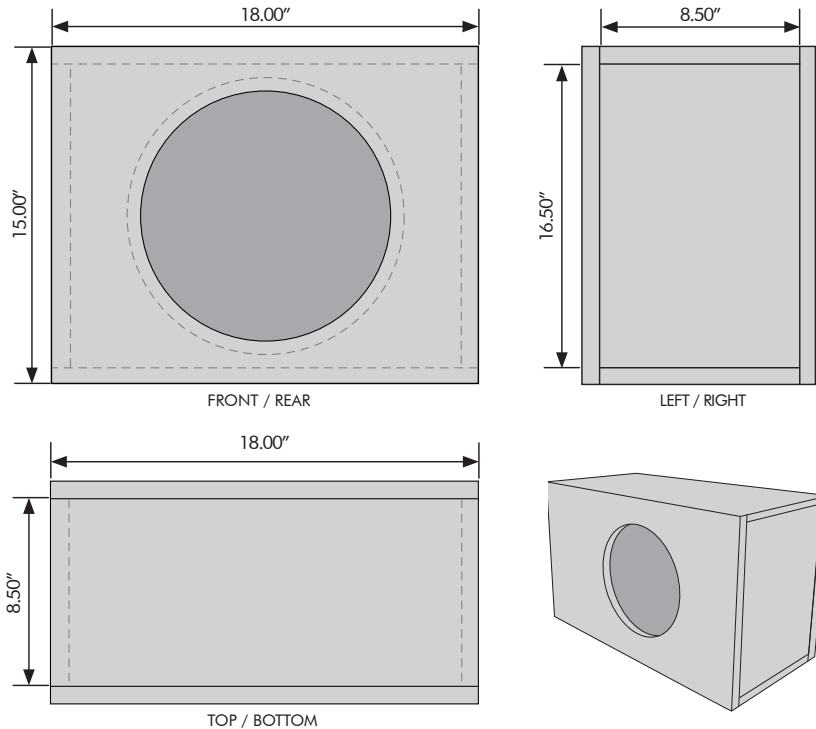
Specifications

External Dimensions.....	18.00" W × 15.00" H × 10.00" D
Net Internal Volume	1.0 ft3
Total Internal Volume.....	1.09 ft3
Gross External Volume	1.56 ft3
Material Thickness.....	0.75"
F3 (Hz).....	52.77
Qtc.....	0.948

Material Prep

Front / Rear	18.00" × 15.00"	2
Top / Bottom	18.00" × 8.5"	2
Left / Right	16.50" × 8.50"	2

**Please note there are no fingers mentioned in the list above. Cut safe my friends.*





The Warranty

In just the same way as being covered in honey and thrown into a dark pit full of hungry woodchucks, people are scared of warranties. Lots of fine print. Months of waiting around. Well, fear no more. This warranty is designed to make you rave about AudioControl. It's a warranty that looks out for you and your client, plus helps you resist the temptation to have your friend Sparky, who's "good with electronics," try to repair your AudioControl product. So go ahead, read this warranty, then register the information at www.audiocontrol.com/product-registration and include your comments.

Our warranty has conditional conditions! "Conditional" doesn't mean anything ominous. The Federal Trade Commission tells all manufacturers to use the term to indicate that certain conditions have to be met before they'll honor the warranty. If you meet all of these conditions, AudioControl will, at its discretion, repair or replace any AudioControl speaker products that exhibit defects in materials and/or workmanship for one (1) year from the date you bought it. We will repair or replace it, at our option, during that time.

Here are the conditional conditions:

1. You must fully register your purchase within 15 days of the purchase date by going to the AudioControl product registration page at:
www.audiocontrol.com/product-registration
Failure to register your product will negate the warranty.
2. You need to hold on to your sales receipt! All warranty service requires original sales receipt documentation. The warranty only applies to the original purchaser from an authorized AudioControl dealer. Note: Products purchased from unauthorized dealers are not covered under warranty.

3. The AudioControl speaker products must have originally been purchased from an authorized AudioControl dealer. **If an authorized AudioControl dealer installs your AudioControl product, the warranty is extended to two (2) years.**
4. Our warranty covers AudioControl products that have been installed according to the instructions in this manual.
5. You cannot let anyone who isn't: (A) the AudioControl factory; or (B) someone authorized in writing by AudioControl, service your AudioControl product. If anyone other than (A), or (B) messes with your AudioControl product, the warranty is void.
6. The warranty is void if the serial number is altered, defaced or removed, or if your product has been used improperly. Now that may sound like a big loophole, but here is what we mean by this: Unwarranted abuse is: (A) physical damage (don't use your product to pound in fence posts); (B) improper connections (120 volts into the speaker terminals can fry the poor thing). This is the best product we know how to build, but for example, if you mount it to the front bumper of your car, drop it over Niagara Falls, or use it for anchoring your boat, something will go wrong.

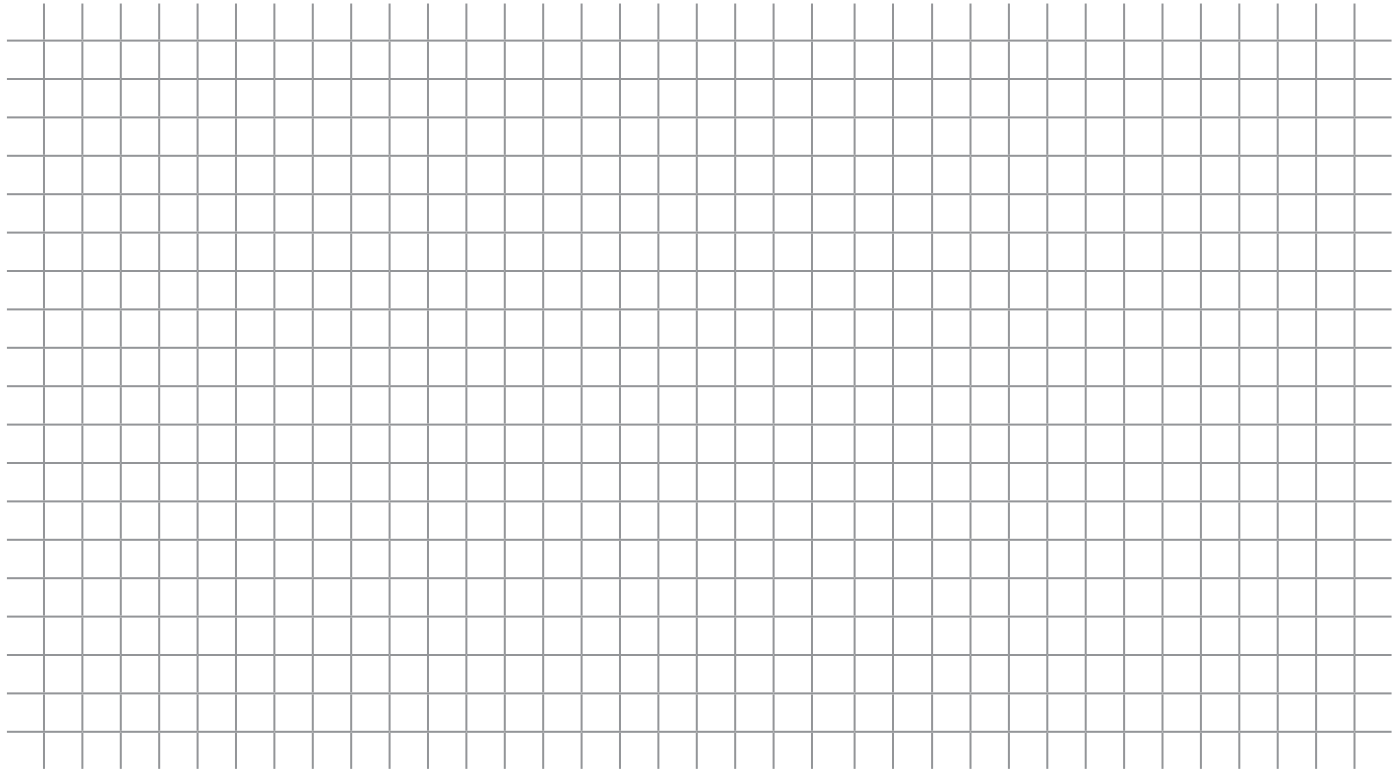
Assuming you conform to 1 through 6, and it really isn't all that hard to do, we get the option of fixing your product, or replacing it with a new one, at our discretion.

In the event that your product is out of warranty or not covered under our warranty, you may request to have any damage repaired at our normal "Out of Warranty" repair cost.

Legalese

The warranty above is the only warranty issued by AudioControl. This warranty gives you specific legal rights, and you may also have rights that vary from state to state.

Promises of how well your AudioControl product will work are not implied by this warranty. Other than what we've said we'll do in this warranty, we have no obligation, express or implied. We make no warranty of merchantability or fitness for any particular purpose. Also neither we nor anyone else who has been involved in the development or manufacture of the unit will have any liability of any incidental, consequential, special or punitive damages, including but not limited to any lost profits or damage to other parts of your system by hooking up to the unit (whether the claim is one for breach of warranty, negligence of other tort, or any other kind of claim). Some states do not allow limitations of consequential damages.



For more information about this fine product, and for additional details of the limited warranty and repair services, please visit **www.audiocontrol.com**

For technical questions, please visit **www.audiocontrol.com/knowledge-base/**

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As technology advances, AudioControl reserves the right to continuously change our specifications, like our Pacific Northwest weather, although we are working on changing that as well.



SPK-10S2
SPK-10S4

Speaker Mounting

Toss those mismatched drywall screws aside like yesterday's news and get ready for some deluxe speaker mounting options that will make you feel like a fancy-pants audiophile.

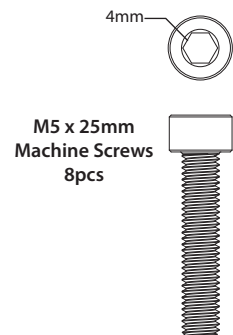
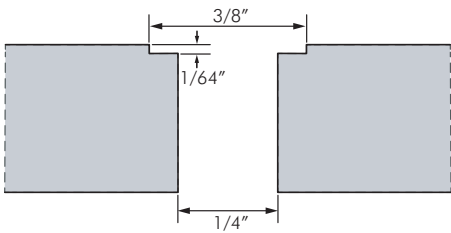
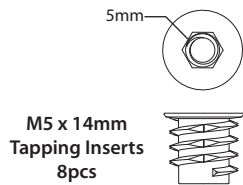
Mounting Option 1

1. Position and secure the template in desired location.
2. Carefully mark the 8 mounting hole locations.
3. Remove the template and drill 1/8" pilot holes in each location.
4. When it's time to mount your speaker, use a 4mm Hex and the ST5 x 25mm wood screws to secure.



Mounting Option 2

1. Position and secure the template in desired location.
2. Carefully mark the 8 mounting hole locations.
3. Remove the template and drill 1/4" through holes in each location.
4. Using a 3/8" drill bit, counterbore each hole 1/64". This is to allow the tapping insert to sit flush with surface.



5. Using a 5mm Hex, install a tapping insert in each location.
6. When it's time to mount your speaker, use a 4mm Hex and the M5 x 25mm machine screws to secure.

