

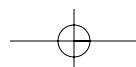
Outdoor 42, Outdoor 52, Outdoor 62

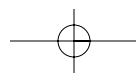
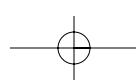
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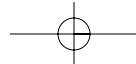
**Installation and User Manual**

**CAMBRIDGE  
SOUNDWORKS**

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## INTRODUCTION

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Thanks for choosing a Newton Series loudspeaker. The Newton Series Outdoor loudspeakers feature the finest drivers and precision crossover network with a rugged weather resistant cabinet construction that should give you years of enjoyment.

The product development team at Cambridge SoundWorks believes there is no better combination of audiophile level attention to detail and reasonable cost.

### After Unpacking

Store the shipping carton and packing material for future use and transport should you ever need to return the speaker for service.

### Inspecting For Damage

Examine each part carefully for shipping damage. If there is any, do not install or use the system. Return the speaker to the store or merchant where you made the purchase or call Cambridge SoundWorks at 1-800 FOR-HIFI (1-800-367-4434) for assistance.

### About This Manual

Care in speaker placement and installation pays dividends in optimum enjoyment. This manual provides tips and instructions to help you get the most from your loudspeakers. Please read through it carefully before proceeding with the installation.

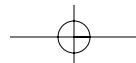
Installing the Outdoor loudspeakers is straightforward and may be performed by an experienced do-it-yourself homeowner. However, some familiarity with typical home construction is necessary.

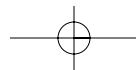
This manual assumes the installer possesses skill in the proper use of hand and power tools, a knowledge of local fire and building codes, and a familiarity with the area behind the surfaces where the speakers are to be installed.

If you do not possess the necessary skills or are otherwise not comfortable with performing a speaker system installation, we strongly recommend you rely on a qualified home entertainment system installer. Contact your dealer, or Cambridge SoundWorks for assistance in selecting a suitable installer.

**Note:** Cambridge SoundWorks will not assume any responsibility for the integrity of the attachment of the speaker and it's mounting brackets to it's mounting surface. The quality of the installation is solely the responsibility of the installer.

Cambridge SoundWorks is not responsible for any damage resulting from the installation or installation process, or due to wiring or materials used in the installation.

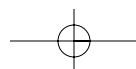
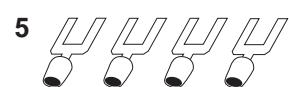
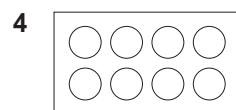
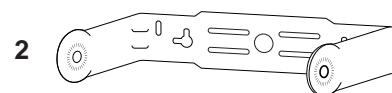
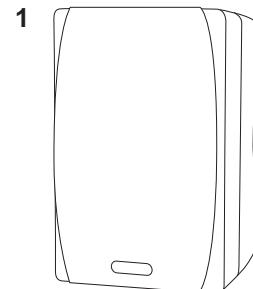


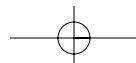


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**Parts List**

1. Loudspeakers (2)
2. Mounting Brackets (4 - attached to speaker)
3. Thumbscrews (4 - attached to speaker)
4. Rubber Feet (8)
5. Spade Lugs (4)





## USE AND PLACEMENT CONSIDERATIONS

Installation and use guidelines for all three models covered in this manual are the same.

The Outdoor loudspeakers are designed to withstand the extreme conditions of nature, including wide temperature variations and direct contact with water. However, it is still advisable to exercise some care in placement to reduce the likelihood of damage. When the option exists, it is best to avoid direct sunlight, and direct exposure to water so as to reduce the harmful long term effects on the speakers cosmetic appearance. Likewise, although they may safely be left outdoors throughout the year, taking the speakers inside if they are not needed through cold winter months will further extend their useful life.

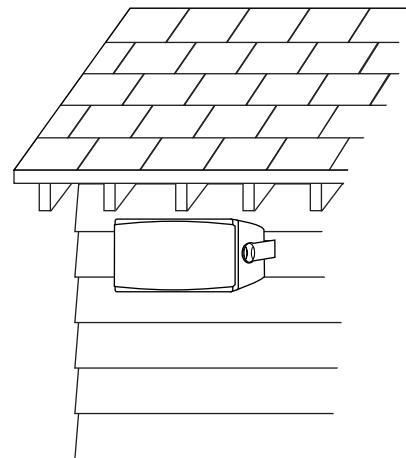
Because the Outdoor loudspeakers have very wide and uniform dispersion there is a great deal of flexibility in placement. The ideal location should provide an unobstructed path from the speakers to the listeners.

You may use the included brackets to mount the speakers to a wall, ceiling, or under eaves. Alternately, the speakers may be used freestanding without brackets. Attach four of the stick-on rubber feet to the bottom of each speaker to protect the surface when used freestanding.

For the best effect used as a stereo pair, separate the speakers by at least four to eight feet. The ideal separation is roughly equal to the distance of the speakers to the listener. Try to place the left and right speakers at a similar distance from the primary listening area.

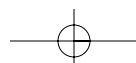
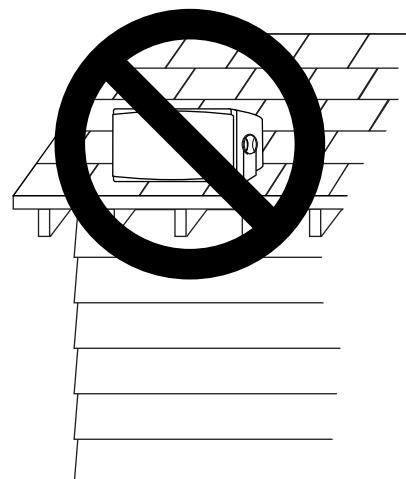
When wall mounting, try to place the speakers under eaves, awnings, or other shelter to help preserve their appearance and reduce the aging effects of sun and rain.

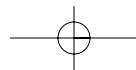
YES



Try to place the speaker under overhanging shelter when possible

NO





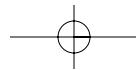
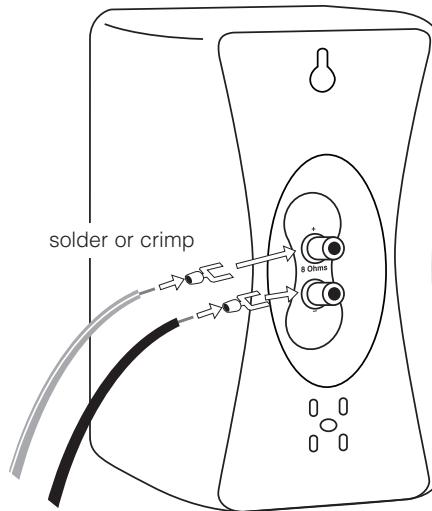
## WIRING

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The trickiest part of installing outdoor loudspeakers is running the wire. Pre-wiring new construction is strongly recommended, but this is not always possible. Access to a basement, attic, or crawl space can simplify the task of getting wires to the appropriate locations. If you are a do-it-yourself homeowner, you may wish to hire a professional for the purpose of running the wires, even if you are planning on mounting the speakers yourself.

The terminals used on the Outdoor loudspeakers will accept up to AWG #12 speaker cable. We recommend using the largest wire that is practical to run in your installation. A minimum of AWG #16 should be used for runs up to 50 feet, with AWG#14 for runs from 50-100 feet. Runs longer than 100 feet should use AWG #12.

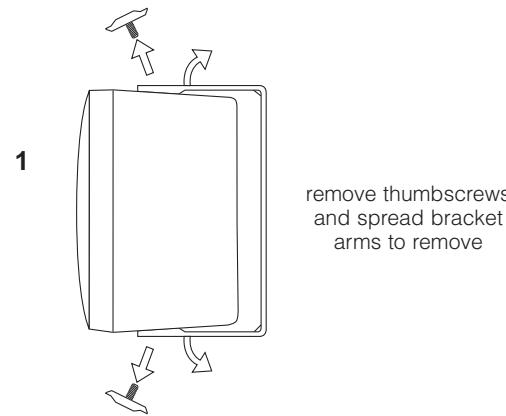
While the wire may be directly inserted into the terminals, in outdoor use standard copper wire will eventually oxidize, potentially creating a faulty connection. For this reason, we recommend using the gold plated spade lugs we have included to terminate the speaker wire. A properly crimped or soldered connection will create a gas-tight contact surface with the wire which will not deteriorate. The gold-plated contact surfaces of the spade lug and speaker terminal will be resistant to oxidation, making the connection more reliable. It is not mandatory to use the spade terminals. Connecting the wire directly to the terminals will not compromise performance, but you may need to periodically scrape the wire contact surfaces clean if the speakers are left outside year around.



## INSTALLATION

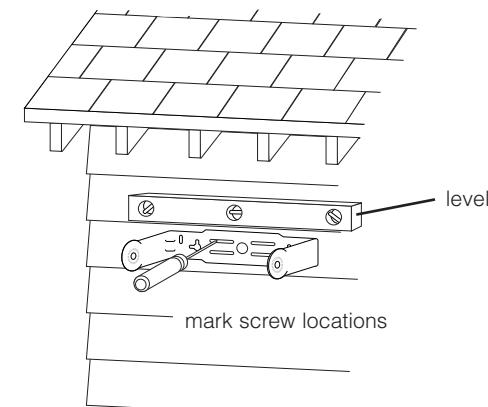
Building construction practices and materials vary widely based on your geographical region as well as the building's style and age. You will need to adapt these generalized instructions for your specific needs. In particular, the method you use to attach the brackets to the mounting surface will differ for various construction types. Because of this, we have not included hardware to attach the brackets to the building. In most cases this hardware will consist of some form of metal or plastic insert with matching screws. If you are attaching directly to a wood framework, simple wood screws will be all you need. Make sure that whatever hardware you choose is made from rust resistant material, such as Stainless Steel. Your local building supply or hardware store will be best equipped to recommend appropriate mounting hardware for your needs.

1. Remove the bracket from the speaker by removing the thumbscrews and pulling the bracket away from the cabinet while spreading the bracket arms slightly.
2. Decide where you want the speakers to be placed.
3. Use the bracket itself to scribe mounting screw locations through the bracket holes. Use at least two screws in each bracket. It is recommended that a level or plumb bob be used to square the template to other reference points. While there is some degree of freedom to adjust the speaker, it is best to have a level mounting hole pattern to begin with.
4. Drill the mounting holes to the size required by your particular hardware. If you are cutting into a wall or ceiling with a plaster, stucco or adobe surface, drill a small hole first, then increase its size a few steps at a time to reduce the chance of a spreading crack. Be sure to use the proper drill type for whatever surface material you will be drilling.
- Note:** When cutting into a wall or ceiling, be careful not to cut into items such as wiring, conduit, or plumbing. It is often difficult to know exactly what lies behind the surface.
5. If you have not already done so, run the speaker wires to the source, or local volume control. If you are running wires through an exterior wall, seal the through-hole with suitable caulking or RTV sealant.

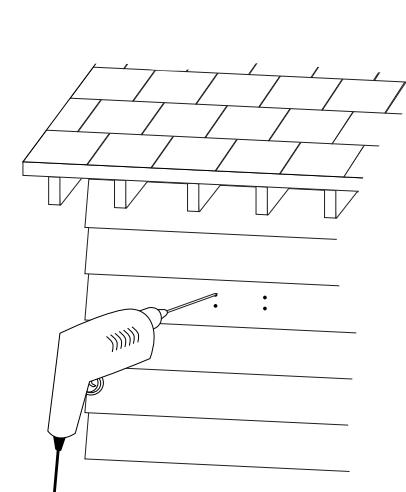


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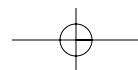
remove thumbscrews  
and spread bracket  
arms to remove



3



4




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6. Locate the speaker wires and strip 3/8" of insulation from the ends. Pass one of the red insulating sleeves over the "+" wire, and one of the black sleeves over the "-" wire. Insert each of the stripped ends into a spade lug, and crimp or solder them securely. Slide the insulating sleeves over the connection.

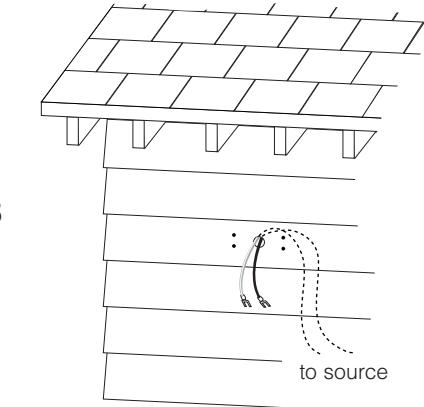
**Note:** It is important to maintain the polarity of the speaker wiring between all of the speakers in the system. Speaker cable usually has some means of identifying the two conductors, either by color, a molded-in stripe, or markings on the jacket.

Familiarize yourself with the method used for your cable, and be consistent with all the connections within the system. On the loudspeakers, the Red terminal is used for "+", and the Black terminal is used for "-".

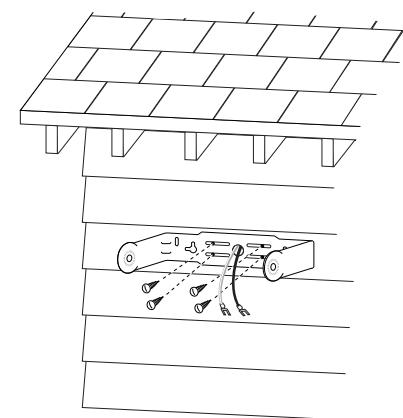
7. Attach the bracket to the mounting surface using appropriate hardware to the mounting holes made in step 4.

8. Locate the speaker in the bracket. Loosely screw the two thumbscrews through the bracket holes and into the threaded inserts at the ends of each speaker. Do not tighten the thumbscrews yet.

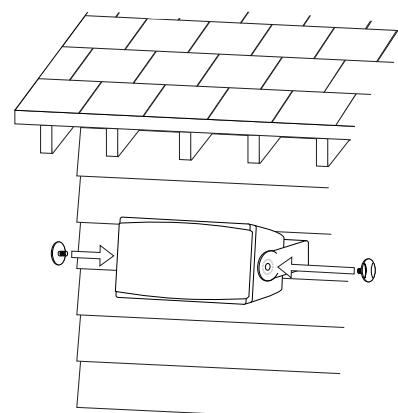
9. Rotate the speaker for access to the terminals, and attach the wires firmly. Rotate the speaker back to the desired angle and tighten the thumbscrews.



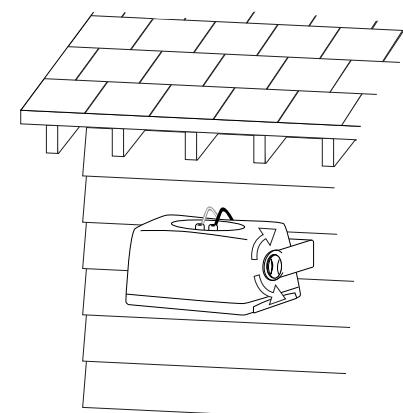
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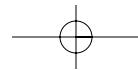
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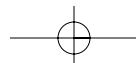


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## ABOUT AMPLIFIER POWER

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The amount of amplifier power needed to drive the loudspeakers varies significantly with such factors as the size of the listening area, the type of music you listen to, and most importantly, how loud you like to play it.

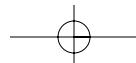
The Outdoor loudspeakers can safely be used with the most powerful amplifiers and receivers designed for home listening, as long as these components are used within reasonable limits. However, the distortion caused by overdriving either the speaker or associated equipment can cause damage, even if the amplifier or receivers power is technically within the capabilities of the speaker.

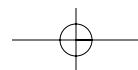
If, at a given volume level the sound becomes "grainy" or exhibits other audible distortion you may be overdriving the amplifier or receiver. This type of distortion is potentially damaging to tweeters, even from a low powered amplifier. Reduce the setting of the volume control until these symptoms disappear. If this is not sufficiently loud for your needs, you may require a more powerful amplifier and/or larger loudspeakers. Contact the retailer where you purchased your loudspeakers, or a Cambridge SoundWorks audio expert for advice on how to best satisfy your needs.

Also, keep the volume turned down when connecting or disconnecting components in order to prevent damage from strong, non-musical transients. This will help protect your ears as well as the speakers.

### Protection Circuit

The Outdoor loudspeakers each incorporate a solid-state tweeter protection circuit to reduce the chance of permanent damage as the result of short-term overpowering. When activated, this circuit will cut the signal to the tweeter, and the speaker may sound dull. When this occurs, it is an indication that the signal is too loud and has exceeded the capacity of either the speaker or the amplifier. Simply reduce the volume to a safe level and the tweeter output will return within a few seconds.

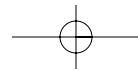


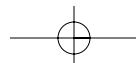


## IN CASE OF DIFFICULTY

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If you suspect that there is a problem with your speakers, contact the retailer where they were purchased, or Cambridge SoundWorks, who will help you track down the problem. If together you agree that there is something wrong with your Outdoor loudspeakers, they should be returned to the retailer where you bought them. Mail-order and Internet retailers will generally require a Return Authorization Number. Products purchased from a Cambridge SoundWorks store may be returned directly to the store where they were purchased, or if you are no longer near a Cambridge SoundWorks store you may call us at 1-800-FOR-HIFI for a factory Return Authorization. Do not return the loudspeakers, or any parts without first obtaining a Return Authorization.

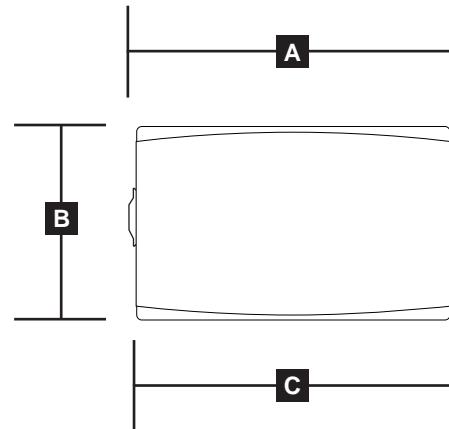




## SPECIFICATIONS

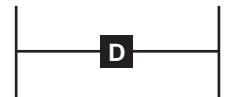
### Outdoor 42

Speaker Type: 2-way, acoustic suspension  
 Woofer: 4" injection-mounted polypropylene  
 Tweeter: 25mm soft polymer dome  
 Frequency Range: 65-20,000Hz  
 Recommended Amplifier Power Range: 25W – 120W RMS  
 Sensitivity (2.83V @ 1meter): 87dB  
 Nominal Impedance: 8-Ohms



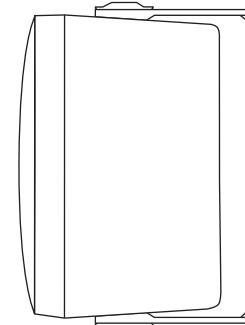
### Outdoor 52

Speaker Type: 2-way, acoustic suspension  
 Woofer: 5 1/4" injection-mounted polypropylene  
 Tweeter: 25mm soft polymer dome  
 Frequency Range: 45-20,000Hz  
 Recommended Amplifier Power Range: 25W – 150W RMS  
 Sensitivity (2.83V @ 1meter): 89dB  
 Nominal Impedance: 8-Ohms



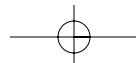
### Outdoor 62

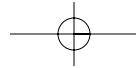
Speaker Type: 2-way, acoustic suspension  
 Woofer: 6 1/2" injection mounted polypropylene  
 Tweeter: 25mm soft polymer dome  
 Frequency Range: 35-20,000Hz  
 Recommended Amplifier Power Range: 25W – 165W RMS  
 Sensitivity (2.83V @ 1meter): 90dB  
 Nominal Impedance: 8-Ohms



### Dimensions

	Outdoor 42	Outdoor 52	Outdoor 62
<b>A</b>	7 3/4"	10 3/4"	13 13/16"
<b>B</b>	6"	7"	8 1/2"
<b>C</b>	8 1/4"	11 1/4"	14 5/16"
<b>D</b>	5 1/2"	7 1/4"	7 3/8"
<b>E</b>	6 1/2"	8 1/4"	8 1/2"
<b>Weight</b>	5 lbs	6 lbs	8 lbs





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