



# D61T-6, D81T-6 TRANSFORMER COLLECTION™



D61T



D81T

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## Introduction

Thank you for purchasing the Transformer Collection™. All of Origin Acoustics' speakers are designed to have excellent sound quality, longevity, and a simple installation process.

This instruction booklet covers the necessary information for a smooth installation, including: the tools you will need, step-by-step instructions for installation, troubleshooting tips for any errors that may occur, and all warranty information. If for any reason you experience problems or if you have installation questions please call us at (844) 674-4461. Hours of operation are 8:00am to 5:00pm (Pacific Time), Monday through Friday.

## SPECIFICATIONS

**Model: D61T-6**

**Part: SCD261T00-6**

- Woofer: 6 ½" (165mm) Polypropylene
- Tweeter: 1" (25mm) Silk
- Diameter: 9 ⅝" (244mm)
- Grille Diameter: 10" (254mm)
- Cutout Diameter: 8 ¾" (222mm)
- Mounting Depth: 4 ²⁷⁄₃₂" (123mm) \*
- Frequency Response: 48 Hz - 20 kHz
- Transformer Taps:
  - 70V - 1.3W, 2.5W, 5W, 10W, 20W
  - 100V - 2.5W, 5W, 10W, 20W
  - 8 Ohm
- Power Handling: 25-125 Watts

\* The Clip Rails of Bayonet Ring have a depth of 5 ⅝" (134mm), but they can be trimmed to be the mounting depth listed above.

**All product specifications are subject to change. Please refer to the dealer portal for the latest information.**

## SPECIFICATIONS

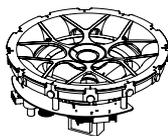
**Model: D81T-6**

**Part: SCD81T00-6**

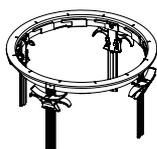
- Woofer: 8" (203mm) Polypropylene
- Tweeter: 1" (25mm) Silk
- Diameter: 9 5/8" (244mm)
- Grille Diameter: 10" (254mm)
- Cutout Diameter: 8 3/4" (222mm)
- Mounting Depth: 5 9/32" (134mm)\*
- Frequency Response: 48 Hz - 20 kHz
- Transformer Taps:
  - 70V - 1.3W, 2.5W, 5W, 10W, 20W
  - 100V - 2.5W, 5W, 10W, 20W
  - 8 Ohm
- Power Handling: 25-125 Watts

All product specifications are subject to change. Please refer to the dealer portal for the latest information.

## What's Included



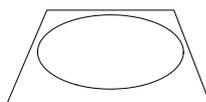
Speaker



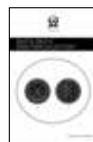
Bayonet Ring



Grille



Template



Installation Manual

## Tools & Items

- Drywall Saw
- Speaker Wire
- Pencil
- Wire Stripper
- Measuring Tape
- Drill
- Drill Bit 1/8" (3mm)
- Stiff Wire
- Stud Finder
- Fish Tape
- Spray Paint
- Compressed Air

## Wire Recommendation

The gauge of wire used can have an impact on the performance of your speakers. Use a multi-stranded wiring designed for amplifier to speaker connections. Which gauge to select depends on the length of wire to be used on any particular speaker. The longer your run is, the larger your wire size must be.

Wire Length	Wire Gauge
0 - 100' (0 - 30m)	16
50 - 150' (15 - 45m)	14
Over 100' (30m)	12

## 70V/100V System

70/100-Volt systems are advantageous when the design calls for multiple speakers from the same amplifier and/or long-distance wire runs. The Origin Acoustics 70V/100V loudspeakers feature multiple taps off the transformer adjusted by a rotary switch on the crossover board at the back side of the speaker. The higher the wattage selected the more output will be generated by the speaker. Please note, 70V is common in the U.S. while 100V is the common voltage internationally, especially in Europe. A simple calculation is used to determine how many speakers can be driven on a single amplifier channel. First, for safety purposes, it is recommended to make the calculations based on 80% of the amplifiers rated power. For example, a 500-watt amplifier would safely deliver 400 watts of usable power ( $500 \times 0.8 = 400$ ). Now it is simply a matter of dividing 400 by the tap setting of the speakers. For example, if the speakers are set at a 10W tap, the amplifier would be capable of driving 40 speakers per channel. At a 20W tap that would be 20 speakers. At a 5W tap that would be 80 speakers and so on.

As you can see, if you need coverage over a wide area and it requires numerous speakers, a 70V/100V system presents a tremendous advantage. However, it should be noted that the higher the wattage tap the higher the fidelity and the greater SPL that can be delivered from each speaker. Therefore, it is best to determine the total number of speakers needed and set the taps as high as possible within the amplifier's power output rating. As mentioned, the rotary switch used to adjust the tap setting is located at the back side of the speaker. It is best to leave the grilles off until all of the tap settings have been properly adjusted.

As you can see on the table below, the tap settings for 70V and 100V are different. These same settings are reflected on the rotary switch with the outer ring indicating the 70V taps and the inner ring indicating the 100V taps. Also note that there is an  $8\ \Omega$  setting for both voltages that bypasses the transformer entirely. Use caution to avoid this setting when connected to a 70V/100V amplifier as this can destroy the loudspeaker.

The tap setting determines how much wattage each speaker will draw from the amplifier. When daisy-chaining multiple speakers, add the combined wattages of all tap settings to determine the wattage draw on the amplifier. The combined total wattage should never exceed the wattage rating of the amplifier.

Position	1	2	3	4	5	6
70V	1.3W	2.5W	5W	10W	20W	$8\ \Omega$
100V	2.5W	5W	10W	20W	X	$8\ \Omega$

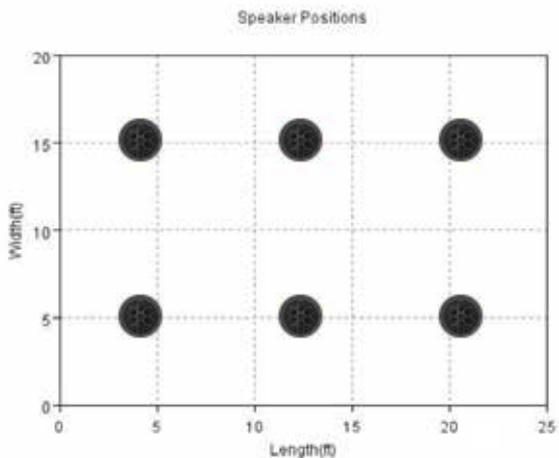
**WARNING:** The 5th position cannot be used with a 100V connection as it will damage or destroy the transformer.

Should you be uncomfortable designing or installing a 70/100V system, or should you have any questions please contact Origin Acoustics Technical Support.

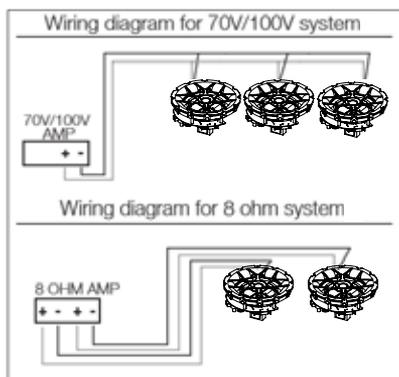


## Speaker Placement

Speaker placement is determined by several factors like desired SPL, coverage requirements, variance in SPL by location, etc. When the object is to fill a large area with very little variance ( $\pm 2$ dB), then a larger number of speakers is required. Typically, once the number of speakers has been determined, placing them equidistant from the walls and from each other will deliver the best result. However, due to other factors this may not be possible. Also realize that the higher the ceiling the greater the conical dispersion and therefore the larger coverage area per speaker. The further the speaker is from the listener, the lower the SPL. Below is a diagram with speakers placed in a 20'x 25' space. As the speaker is placed closer to the wall, bass frequencies will be enhanced. This may or may not be the desired effect but certainly needs to be considered.



## Wiring Diagram



# About Speaker Wire

Use a two conductor wire that allows you to identify one conductor from the other. This designation may be obvious or as subtle as a ridge on one conductor.

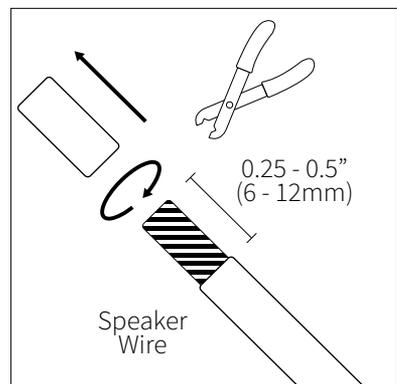
It's crucial that you keep track of which wire you use for positive (+) and negative (-). Typically if the wires are colored red and black, the red wire is used for positive and the black wire is used for negative, but sometimes other colors or patterns are used. You can choose whichever color of wire you want to be positive and negative as long as you remain consistent throughout the install.

On both your amplifier and your speaker the connectors will be identified as red for positive and black for negative. It is very important to look carefully at the speaker wires and be certain that the same wire that is attached to the positive connector in the amplifier is attached to the positive connector in the speaker.

## Installation:

### 1. Installing the Wire

Strip  $\frac{1}{4}$  to  $\frac{1}{2}$  inches (6 to 12 mm) of the insulation off both ends of the wire. To avoid stray strands, twist them at the end. Connect the wire to the amplifier, and make sure the wire connected to the left speaker output will be routed to the left speaker, right output to right speaker, etc.



## Wire Routing

Plan how you'll route the wire to the desired speaker location. There are several methods for routing the wire, and you may need to combine several of them.

### Behind the Baseboard

The wire can be routed behind the baseboard by cutting a groove out of the back of the baseboard, or by buying special baseboard designed for concealing wires.

### Through Walls

When running wires through a wall, be sure to avoid all obstacles such as AC wiring, pipes, and ducts.

### Attic or Basement

When available, you can route the wire through an attic or crawlspace.

### Under the Carpet

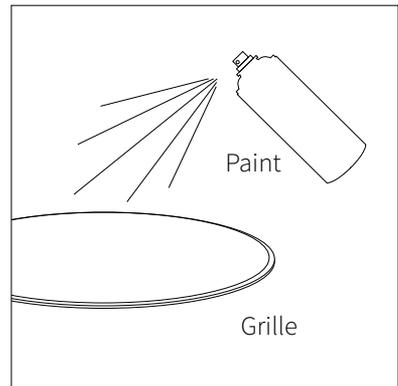
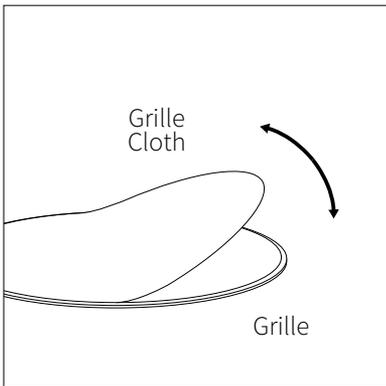
One option is to lift up the carpet and route "tape wire" under the carpet.

## For New Construction

If these speakers are being installed in a new home during construction, the installation process will be a bit different (although much simpler). For these situations, it's recommended you purchase a bracket. Instructions on how to install the speakers are provided with the bracket, or can be found on our website. Visit [www.originacoustics.com](http://www.originacoustics.com) for more information.

## 2. Painting the Grille

In some situations the speakers may look better if the color matched the walls, ceiling, or trim in the room. This can be accomplished by painting the grille. The grille must be painted with spray paint, and most hardware stores will mix a can of paint to match whatever color you need. Before painting, carefully remove the thin cloth on the underside of the grille. Lightly spray the front of the grille with the paint from a distance, being careful not to plug any of the holes. Diluting the paint with paint thinner will lessen the risk of filling any holes. If a hole gets plugged use a can of compressed air to open it. Once the paint is dry, put the cloth back on the grille.

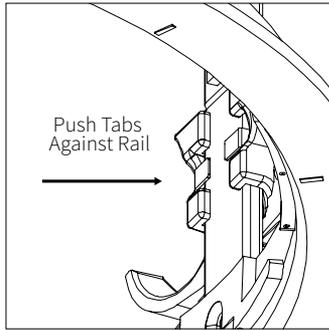
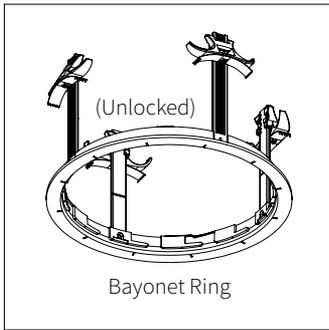


## 3. Cutting the Hole

When you've decided on the locations for all of the speakers, use the template to trace a circle lightly in pencil where the hole should be. (If you don't have a template, check the Specifications section for cutout sizes.) If you're unsure on whether there may be obstacles (such as pipes or wires) where you plan on installing the speaker, drill a 1/8 inch hole in the center of the circle, then put a bent coat hanger through the hole to feel around. Use a keyhole or drywall saw to cut the hole.

## 4. Installing the Bayonet Ring

Adjust the clips so that they're positioned at the top of the rail. If they're not already there you can do this by pushing the release tabs (or metal "buttons") on the inside of the rail and pulling the clips to the top of the rails. Insert the bayonet ring into the hole in the ceiling by gently bending the clips inward. Reach inside the bayonet ring and push the clips down so that the bayonet ring is firmly in place, but not too tight. If for some reason the bayonet ring needs to be removed, reach inside and push the release tabs to fully remove the clips. After the clips have been removed, the bayonet ring can be taken out.



## 5. Connecting the Wire

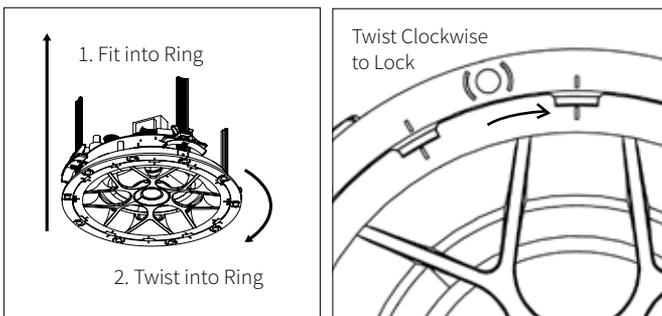
When wiring the speaker to an 8 ohm amplifier, always use the 8 ohm setting on the speaker, to avoid damage to the amplifier. When using a 70V/100V amplifier, set the switch position to the desired tap setting. The tap setting determines how much wattage each speaker will draw from the amplifier.

When daisy-chaining multiple speakers, add the combined wattages of all tap settings to determine the wattage draw on the amplifier. The combined total wattage should never exceed the wattage rating of the amplifier. Note the positive (+) and negative (-) indicators on the connector and make wire connections appropriately. Ensure that the positive wire is being attached to the positive connection and the negative wire is being attached to the negative connection. If the negative and positive wires are switched, speaker performance will be drastically impacted.



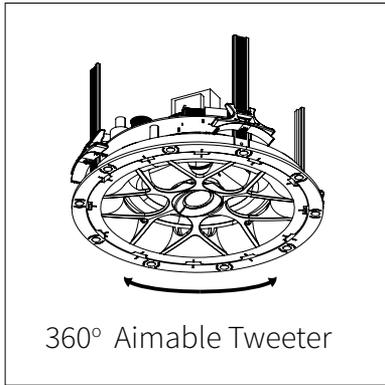
## 6. Installing the Speaker

Fit the speaker into the bayonet ring, and twist it clockwise into place. When the lines on the speaker lines up with the lines on the bayonet ring, that means the speaker is tightly in place. Be sure that the lines line up, otherwise there's a risk that the speaker will fall out of the ceiling.



## 7. Testing & Adjustments

The tweeter can be pivoted to direct the sound towards the listening area. Or for a more diffused surround sound experience, the rear speakers can be aimed towards the wall. You should install the speaker with the baffle pointing toward the desired listening location.



## 8. Installing the Grille

Fit the grille over the speaker. The grille uses magnets to be held in place.

# Troubleshooting

If you have a problem, try isolating it first. For example, if you're playing a DVD and there is no sound, try replacing the DVD with an MP3 player to see if you get sound. If it does work, then the problem is with the television, DVD player, or the cables connecting them. If it doesn't work, the problem will be with the amplifier, speakers, or those cables.

Problem	Possible Cause
No Sound	The volume may be turned down or muted. Check the volume settings on both the amplifier and the television/computer/CD player/etc.
No Sound	Make sure the proper source is selected on the amplifier or receiver.
No Sound	Check the cord connecting the amplifier with the source. The cord may be damaged or plugged into the wrong input or output.
No Sound	Check the wires connecting the amplifier with the speakers. Make sure they're connected properly and not damaged in any way.
Poor Sound Quality	If you hear something like static, or the sound is cutting in and out, check the audio cables. If the problem increases when a cable is being moved, then the cable is most likely faulty or not connected properly.
Poor Sound Quality	Today's audio systems may have several places to adjust the volume, for example your MP3 player may have a volume control, and your amplifier may also have one. Check to be certain that the volume isn't turned up past 80% on any device.
Poor Sound Quality	Try changing sources to be certain that the selection you've chosen is a good quality recording.

## Technical Assistance

If you have any questions or concerns about installing or using this product, you can reach us through one of the following methods:

Phone: (844) 674-4461

Hours of operation: 8:00am - 5:00pm (Pacific Time), Mon - Fri

Email: [techsupport@originacoustics.com](mailto:techsupport@originacoustics.com)

If you are having technical trouble, please include the model number and briefly explain what steps you took to resolve the problem in your email, or be prepared to answer these questions over the phone. If you are considering returning the product, it's required that you contact Origin Acoustics prior to any return attempts. This way we can determine if the issue can be resolved without returning the product, or if needed we can provide instructions and support for the return process.

## Limited Lifetime Warranty

Origin Acoustics warrants to the original retail purchaser only that this Origin Acoustics product will be free from defects in materials and workmanship, provided the speaker was purchased from an Origin Acoustics authorized dealer.

If the product is determined to be defective, it will be repaired or replaced at Origin Acoustics' discretion. If the product must be replaced yet it is no longer manufactured, it will be replaced with a model of equal to or greater value that is the most similar to the original. If this is the case, installing the replacement model may require mounting modifications; Origin Acoustics will not be responsible for any such related costs.

## Requirements & Warranty Coverage

This warranty may not be valid if the product was purchased through an unauthorized dealer. This warranty only applies to the individual that made the original purchase, and it cannot be applied to other purchases. The purchaser must be prepared to provide proof of purchase (receipt). This warranty will not be valid if the identifying number or serial number has been removed, defaced, or altered.

**All warranties and warranty conditions are subject to change. Please refer to**

**[www.originacoustics.com](http://www.originacoustics.com) for the latest information.**

## Not Covered by Warranty

- Accidental damage
- Damage caused by abuse or misuse
- Damage caused by attempted repairs/modifications by anyone other than Origin Acoustics or an authorized dealer
- Damage caused by improper installation
- Normal wear, maintenance, and environmental issues
- Damage caused by voltage inputs in excess of the rated maximum of the unit
- Damage inflicted during the return shipment

## Return Process

Before making any return attempts, it is required that you first contact Origin Acoustics. Return product to Origin Acoustics or your dealer, either in person or by mail. It's preferable if the product is returned in the original packaging. If this isn't possible, the customer is responsible for insuring the shipment for the full value of the product.

This warranty is in lieu of all other expressed or implied warranties. Some states do not allow limitations on implied warranties, so this may not apply depending on the customer's location. (For more information, see Magnuson-Moss Warranty Act.)

# NOTES



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