6. Install Grill
The grill has four neodymium magnets which are embedded in the frame. These magnets are arranged to align with the screws that hold the baffle in place. Simply place the grill on the baffle and align as necessary.

7. Test the speaker
Connect the speakers to your stereo system and play music through the speakers to verify that the overall sound is full and smooth. If a driver is not working or the sound is intermittent or distorted, please see the Troubleshooting section for possible remedies. In most cases the cause of a problem will be traced back to improper wiring of the crossover and not faulty drivers.

Break-in: Please allow a full two weeks of playing time at moderate volumes before playing the system at high energy levels. This will allow the drivers suspensions to properly break in before being subjected to large excursions.

Care and cleaning
To protect the Dayton Audio speaker system’s finish, use some care when cleaning it. To remove dust from drivers, grills, or the cabinet tops, a synthetic “feather duster” works well. For more stubborn dust on the grills or woofers, a vacuum cleaner with gentle brush attachment may be used. It is not recommended to use any type of cleaning apparatus on tweeter domes; dust will not affect the sound, and the chance of damaging the dome is high.

For cleaning streaks or fingerprints on the cabinet finishes, an ammonia-based window cleaner is recommended. It will not affect the finish and will leave a streak-free shine. It is important to use only very soft, clean cloths, and to wipe gently at the surface. Intense scrubbing or using cloths with debris on them may cause small swirl marks or scratches. Of course, the best way to maintain the finish on the cabinet is to prevent soiling it in the first place. Never place drinks or abrasive objects on the top of the speaker.

Troubleshooting
Again, in most cases the cause of a problem will be traced back to the improper wiring of the crossover and not a faulty driver. Common mistakes: using the wrong harness, improper polarity, bad or loose connections.

Problem: No output from speaker system.
Cause: Bad connection.
Solution: Check connections from the stereo to the input of the speaker system. If OK, check the connection from the binding post to tweeter and woofer input terminals. If this is OK, Test speaker on another system. If sound comes out check initial stereo settings and connections (speakers on/off). If there is no sound at all, please contact your place of purchase immediately.

Problem: No output from woofer in individual speaker.
Cause: Bad connection or defective woofer.
Solution: Connect the speaker to your stereo system and play music through the speakers to verify that the overall sound is full and smooth. If this is OK, directly test the woofer by hooking it up to stereo system at low volume settings. If there is no sound at all, then woofer is likely defective. Please contact your place of purchase immediately.

Problem: No output from tweeter in individual speaker.
Cause: Bad connection or defective tweeter.
Solution: Check connections from crossover board to tweeter. If this is OK, directly test the tweeter by hooking it up to stereo system at low volume settings. If sound comes out of the woofer, then go back and check connections. If there is no sound at all, then tweeter is likely defective. Please contact your place of purchase immediately.

Problem: There is sound from the speaker, but it is very quiet and seems to be mostly treble or midrange.
Cause: Bad connection in wires or crossover board.
Solution: If entire speaker is intermittent, then check connections between the input terminals and the crossover board. If just woofer or tweeter is intermittent, then check the wiring to the drivers. If these are OK, check the connections of the components within the appropriate section of the crossover.

Problem: One speaker appears louder than the other.
Cause: Amplifier settings, environmental factors, psychoacoustics, poor connection in crossover.
Solution: Check your amplifier to ensure that the balance is set even. If not, upgrade your amplifier. If it has a low impedance setting, it may simply not have enough power.

Problem: Intermittent output of entire speaker, woofer, or tweeter.
Cause: Bad connection in wires or crossover board.
Solution: If entire speaker is intermittent, then check connections between the input terminals and the crossover board. If just woofer or tweeter is intermittent, then check the wiring to the drivers. If these are OK, check the connections of the components within the appropriate section of the crossover.

Problem: Speaker(s) play well, but amplifier shuts down.
Cause: Amplifier does not have enough power or cannot handle speaker impedance.
Solution: If using 4-ohm speakers, check receiver/amplifier manual to see if it can handle 4-ohm speakers or if it has a low impedance setting. If not, upgrade your amplifier. If the receiver/amplifier can safely handle the speaker load, then it may simply not have enough power.
Introduction

The Dayton Audio RS150-4" woofer and Dayton Audio RS28A-4 1-1/8" tweeter have been sonically matched and integrated in this system. Great drivers, superbly constructed enclosures, and optimized crossovers are combined to provide impressive music playback performance. The net crossover point between the woofer and tweeter is at about 2,300 Hz. A fourth-order acoustic slope was used for the low pass filter and the tweeter utilizes a simple third-order electrical filter.

The overall output capability and impressive bass response of this compact loudspeaker is second to none—supplemented with a subwoofer, this system really rocks! It is very accurate, yet not harsh or overly clinical. When used properly, the RS521i can handle a healthy amount of power and produce sound pressure levels that will fill any average-sized room. Overall, these great all-around compact speakers will excel in a myriad of applications.

Crossover Diagram

Specifications:
- Impedance: 8 ohms
- Frequency response: 60 - 20,000 Hz
- SPL: 88 dB 2.83V/1m
- Power Handling: 65 watts RMS
- Cabinet dimensions (straight-sided): 12" H x 7.5" W x 10" D
- Cabinet dimensions (curved sided): 12" H x (7.5") front, 4.5" back) W x 10.5" D

Loudspeaker Kit Assembly Instructions

By following these instructions and assembling the speaker in a conscientious manner, you will be able to enjoy your investment for many years to come. If there are any questions during the assembly process, please contact your place of purchase.

Gather the Necessary Tools

The assembly of your speaker kit requires several basic tools and supplies, though more advanced tools can be used if desired. The following list represents the basic tools that are required:
- Hammer
- Phillips head screwdriver or power driver
- Small wrench or pliers
- Silicone adhesive or hot-melt glue gun
- Scissors or utility knife (for cutting foam)

Workspace Considerations

As with any type of kit assembly, it is best to have a well-lit, clean, work area. This will save time by eliminating lost parts and preventing assembly errors. When working with the cabinets, it is important to cover the work surface with a cloth or foam layer to protect the speaker finish. The foam wrap that is around the speaker cabinets will work well for this, but make sure it is free from dust or other debris.

Getting Organized

To prepare for the kit assembly, begin with some basic unpacking and organizing. Open the large speaker cabinet box and remove the cabinet from the packaging. You will need to unstrap the cabinet itself, saving the wrap to protect your work surface. Remove the baffles from the cabinet and place the screws somewhere safe. Unpack the binding posts and other packaged items.

Assembly

1. Install Binding Posts

The posts will need to be knocked into the cabinet back panel using a hammer and secured from the inside of the cabinet. Start by placing the back panel face-down onto the work surface, being sure that the cabinet is firmly supported.

Note:
- Excessive hammering is not necessary and may cause damage to the cabinet's finish.

Remove the binding posts from their package, and unscrew all washers and nuts from the shaft. Next, remove the main nut that is used to hold the speaker wire onto the terminals—this will prevent them from getting damaged while the posts are being inserted.

Insert one of the post shafts into the hole and align it, ensuring the wire hole is held in place by the cabinet face. Gently tap into place until the shoulder is even with the rear of the cabinet.

Note:
- Excessive hammering is not necessary and may cause damage to the finish of the cabinet around posts. Repeat the same process with the second post.

Once the posts have been knocked into place you will need to secure them to the inside of the cabinet. A lock washer should be installed to secure the posts to the cabinet. Next, install the wire terminal tab, the second lock washer, the second nut, and then tighten into place.

2. Wiring and Installing the Crossovers

The crossover is composed of two sections (two boards): a low pass filter for the woofer and a high pass filter for the tweeter. There is an indicator on the inside of the cabinet board near the output terminal of each filter. "W" denotes the low pass filter and is for connection to the woofer and "T" denotes the high pass filter and is for connection to the tweeter. The input terminal for each board is indicated using "IN".

Note:
- In most cases the cause of a problem will be traced back to improper wiring of the crossovers and/or a double check your connections.

Wiring:
- Each kit includes input, woofer(s) and tweeter wiring harness with the crossover boards included. Identify the correct harnesses and attach to the appropriate terminals on the crossover boards. The crossover board side of the harness will always use the larger 250" connectors. Connect the input wiring harness from both crossover boards to the binding posts with the terminal tabs while paying close attention to polarity. The red wires will connect to the terminals that are marked with a + sign.

Location:
- With the crossover boards in the cabinet and connected to the input binding posts, identify a suitable mounting location making sure both the woofer(s) and tweeter wiring harness will reach their respective cabinets. The best location for the high pass filter is on the bottom front half of the cabinet and the best location for the low pass filter is across the center of the internal brace.

Mounting:
- Secure the crossovers to the inside of the cabinet with the included #6 screws or with silicone or hot-melt glue. If using hot-melt glue, it is recommended to place the glue on the surface of the cabinet and then press the board into it. This prevents the glue from cooling too rapidly or dripping onto the cabinet. For curved-sided cabinets, we recommend using the screws to secure the crossover boards. If you are using silicone, it is easier to apply the glue to the back of the PC board. Make sure the mounting location is horizontal, and place the board into its location. Allow the silicone to cure for an hour or so before you change the orientation of the cabinet.

3. Install dampering material

Fully line the cabinet using the included 1/2" acoustic foam. One sheet should be allotted for each cabinet—cut the foam to size and then secure to the cabinet interior walls using a spray adhesive such as 3M's Super 77 or with hot-melt glue. Cut and place the foam around the crossover boards and trim. When using spray adhesive, please follow the manufacturer's instructions. It is best to apply the spray to the foam first, then fold over the泡沫 into the cabinet to prevent getting adhesive on the cabinet exterior. When using hot-melt glue, simply place a drop of glue at various locations on the rear of the foam and press into place.

Note:
- Do not place foam directly on top of or underneath the crossover boards.

4. Install the baffle

Press the baffle into the cabinet, working carefully to ensure that no wires are trapped between the baffle and the cabinet. Route the driver wiring to their proper driver hole location. Once the baffle is fully installed, it can be secured via the included machine screws and glued into place as desired.

Note:
- Once the baffle is glued into place, making any changes to the speaker becomes very difficult. Using the four machine screws by themselves will have adequate holding power to prevent leaks and vibrations of the baffle. However, for the utmost cabinet strength, the baffle should be glued into place with polyurethane glue.

5. Install drivers in baffle

When mounting the drivers, start with the tweeter, then the woofer. This will leave the large woofer opening to help the wiring and placement of the more delicate tweeter. Identify the tweeter wiring harness and gently pull it through the tweeter opening and attached the terminals while paying close attention to the connections. The red wires will be connected to the terminals that are marked with a "red" dot or + sign. Repeat this step for the woofer(s).

Note:
- All drivers should be located carefully into place on the baffle. Facing the terminals towards the bottom of the cabinet is the generally accepted orientation, though it is not a critical. Using the included screws and pre-drilled pilot holes carefully tightening the drivers onto the baffle. Pay particular attention to not overtighten screws on drivers with stamped steel or polycarbonate frames, which can cause deformation of the flange.

Secure the drivers to the baffles with the included screws. All screw holes are pre-drilled so be sure to properly align the drivers with these holes during installation. Some form of gas-tight material should be used between the driver frames and the baffle to prevent air leaks and vibrations.

Cabinet Dimensions:
- Dimensions based on traditional cabinet design.