

Silver Lace™ Interconnect Assembly Instructions RCA Termination

Parts Included:

- 2 runs of Silver Lace™ braided 8-strand cable cut to finished length
- 2 runs of white polyester mesh sleeving
- 4 rhodium plated locking barrel RCA connectors
- 4 black 5/16" PVC shrink tubes
- 8 black 1/4" PVC shrink tubes
- 2 white shrink tubes with logo
- 4 mini (1/8") shrink bands
- silver solder
- assembly instructions

Overview:

Included is everything necessary to make a superb sounding interconnect pair. The Silver Lace™ is truly in a class of its own, and we are proud to offer this outstanding cable as a DIY project. Most people find the assembly straightforward, and that it takes 2-3 hours to do a good job terminating each pair. For many of you, the directions will seem simplistic. Please consider following them as we've worked hard to insure good results and proper cable alignment when the suggestions below are followed carefully. We're here to help if you have any questions.

Step 1: Examine the Braids

Remove the tape from the ends of each braid being careful not to allow the braid to fray. Verify that the two runs of braided cable are cut to equal lengths making any small adjustment necessary to even the wire ends. You'll notice that each braid is comprised of 8 strands of wire consisting of alternating white and clear insulation colors. Looking carefully you will see that 4 of these wires travel in a clockwise direction through the weave whereas the alternating four wires travel in a counterclockwise direction. This is an important observation to make. Maintaining this orientation is critical for the Silver Lace™ to perform as designed.

Step 2: Separating Signal and Return Strands

Take a small piece of masking or electrical tape and wrap it around the braid of wires approximately 1 inch back. Separate the 4 (clear) signal wires from the 4 (white) return wires. While separating keep the signal and return wire groupings flat. Do not twist these two groupings. The 4 (clear) signal wires should be flat above the 4 (white) return wires.

Step 3: Stripping the Wire Ends

Even the ends of each group of wires with your wire cutters (do this cautiously as the ends should already be close to even and it is important to preserve the overall length of the cable). Remove 1/4" of insulation off each end of the 4 signal strands. [Note: the wires used in the Silver Lace™ interconnect is 26 AWG solid round silver. Choose your stripping tool appropriately as wire nicks should be avoided]. Repeat this process with the 4 return strands. Finally, with the needle nose pliers or your fingers hold the insulated signal grouping while twisting the stripped portion approximately 3 or 4 times. Repeat this with the return grouping.

Step 4: Putting on the Mesh

Take a small piece of masking or electrical tape and wrap it around one of the ends of the cable. This will make it easier to slide the mesh over the cable by preventing any ends of the strands from getting caught up in the material. To get the mesh started, you might need to compress the end a little with your finger or

dilate it with an instrument like a pencil so you can more easily slide it over one cable. Next, carefully snake the mesh over the cable until it is basically covered end to end. Run your fingers across the mesh to smooth out any material that may have been bunched up while placing it over the cable. The mesh should now be uniformly stretched over the cable assembly. Simply cut any excess mesh that is protruding over the end of the cable so that it is flush with the ends of the wire leads using either your wire cutters or a pair of scissors. **Tip:** *If mesh material is frayed at the ends, you might need to temporarily place a piece of masking tape over the ends so that the shrink tubes can be slid over more easily in the next step. Once the first set of tubes are placed on the cable the tape can then be removed.*

Focus on one end of a single braid for steps 5-7

Step 5: Placement of PVC Strain Relief Tubes

Caution: *The polyester mesh that is included in this kit has a relatively low melting temperature. For this reason, special care must be taken not to burn the mesh material while applying any of the shrink tubing required for the cable's assembly. The PVC tubes provided are designed to shrink well before reaching temperatures that would cause the mesh to melt, and if you are using a hair dryer this should not be a problem. However, please be careful when using heat guns that operate at a much higher temperature and could easily melt the mesh material. Any heat gun should be adjusted to its lowest setting and gradually adjusted to a higher temperature just up to the point where the PVC tubes start to shrink. In most cases, this will happen at a very low setting. If your heat gun does not have an adjustment for temperature, or only one or two settings, you should consider using a hair dryer in its place since it most likely operates at a very high temperature that would cause the mesh to melt.*

(Refer to diagram 1 for next step)

Measure exactly ½" from the end of one of the braids and slide one of the 5/16" black shrink tubes into place. When you are certain that 1/2" of the braid extends past the PVC tube end, shrink the tubing in place with your heat gun or hair dryer. You might notice the mesh material that extends past the shrink tube has started to bend or bow out with the heat close to where it was cut. Since your next task is to remove this portion of the mesh this is no cause for alarm. Use your wire strippers or scissors to carefully remove the excess mesh between the shrink tube and the cable ends being cautious not to cut or damage any of the wire leads. Next, take the second ¼" black shrink tube and position it so that it overlies the first piece of tubing that you shrank. Shrink this tubing into place over the first. Finally, repeat with another ¼" black shrink tube.

Step 6: Attach RCA Connector to One End of Each Braid

(Refer to diagram 2 for connector overview)

You should now have one end prepped on each of the two braids. Remove the outer silver barrel from one of the RCA connectors by unscrewing it. Use a small Hex Key wrench to loosen the set-screw that is present on the body of the RCA connector. This small screw must be loosened adequately so that it is flush with the inside of the RCA plug.

(Refer to diagrams 3 and 4 for the next steps)

Carefully slide the cable assembly into place through the end of the RCA plug until the black PVC shrink tubes are inside of the connector barrel. If this is difficult to do, you most likely need to further loosen the set-screw or completely remove it. Your careful measurements should yield a good fit. Verify that the 4 signal (clear) strands align properly into the solder lug associated with the "pin" of the RCA connector. The 4 (white) return wires will lie under the pin so that they can be soldered to the grounding bar of the connector. Small adjustments can be made at this point for an optimal fit. When pleased with the alignment, tighten the set-screw to hold the strain relief assembly into place. Ideally the wires' insulation should extend to the signal pin and the grounding bar (the stripped signal portions should be inside the pin and the stripped return portion should be on top of the ground bar. You will solder here in the next step to strengthen the joint.

Step 7: Soldering

A good solder joint is critical. Here are a few coaching suggestions: the wires you are soldering should directly contact the RCA connector when making a joint. In other words, make sure there is good mechanical contact... avoid joints where the wire is "floating" above the connector in a puddle of solder. This becomes more challenging when working with multiple conductor strands such as in the Lace. A simple trick that helps to keep all wires in contact with the connector is to use the tip of a soldering probe or small flat bladed screwdriver to hold the wires in place while soldering. One final not... less is more when applying the solder. We've supplied much more than you will need so that no one burns any fingers. *HINT: if you have the means to secure the RCA connector while soldering, it will make your job much easier.* Solder the 4 signal strands into place using the techniques mentioned above. You verified that the wires fit well into the center pin of the RCA plug in step 6. You must now simply make a good solder joint connecting the wires to the pin. Next, solder the 4 return wires to the grounding bar. The best strategy here is to heat the grounding bar with the tip of your iron and when hot, apply enough solder to form the joint. *Terminate one end of both braids as just described.*

Step 8: Logo Tube Placement

(Refer to diagram 5 for next step)

Notice that the two white shrink tubes supplied in your kit contain printed directional arrows as well as either a plus or a minus symbol to demark whether the cable will be used for the left or right channel. Directionality in the Lace is primarily attributable to the changes that occur during wire burn-in (not wire geometry) therefore there is not any 'correct' orientation that the logo tubes have to be in. For our factory-assembled products our convention is to place the tubes 4" from the base of the connector with the directionality arrows pointing toward the end of the cable that is not yet terminated. Once again, these tubes will shrink well before reaching a temperature that will cause the mesh to melt, but please be careful with the heat guns.

Step 9: Starting On the Opposite Cable Ends

Now that one end of each cable has been terminated, verify that the overall cable lengths are still equal between the two braids. Make any small length adjustments necessary at the unterminated end. Pull the mesh back and tape to the braid. Repeat steps 1-3, when complete untape mesh. Repeat steps 5-7 on the unterminated ends of both cables. **Be extra cautious during Step 6: to use the corresponding groupings or wire for the signals and the returns or you will end up shorting the cable.**

Step 10: Final Assembly

Now that the cable is assembled, the next step is to check the cable for continuity. This can be done with a cheap meter that you can buy at your local Radio Shack for about \$10. Make sure there are no shorts (for the electrically uninclined, there should NOT be continuity between the signal pin at one end of the cable and the ground at the other). Look over your work, reassemble the RCA plugs, and you are done! You are now ready to enjoy your new cable. You will find that the cables "break-in" and sound best after a few days. Thanks for your purchase and happy listening!

Please see reverse side of page for diagrams

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Visual Supplement

Diagram 1: PVC tube placement

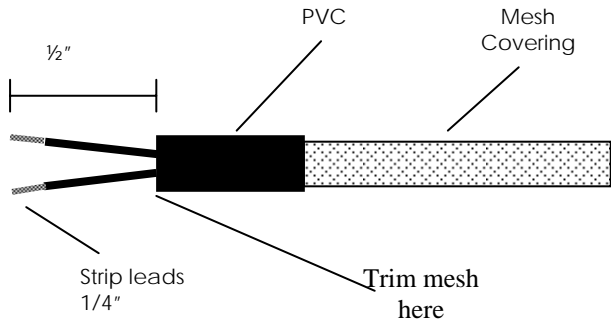


Diagram 2: Connector Overview

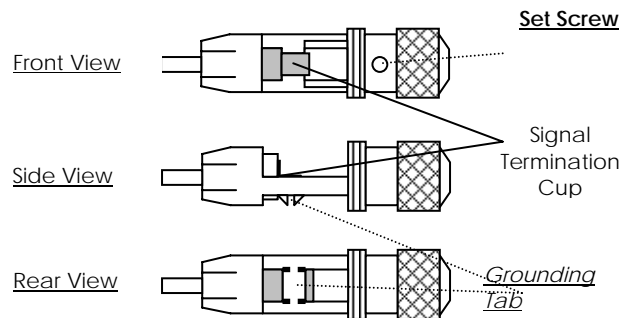


Diagram 3: Inserting cable into connector

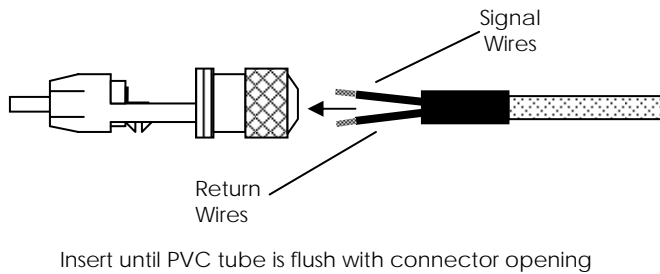


Diagram 4: Termination Technique
(Side view of connector)

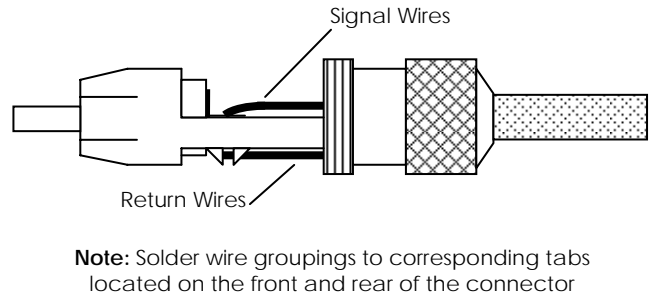
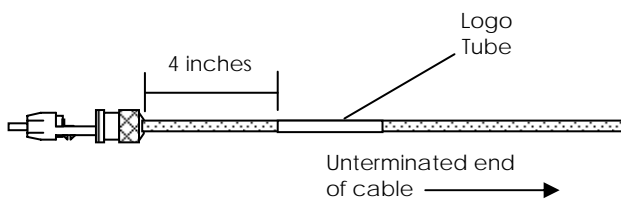


Diagram 5: Logo tube placement



Note: Directionality arrow should point towards the unterminated end of cable