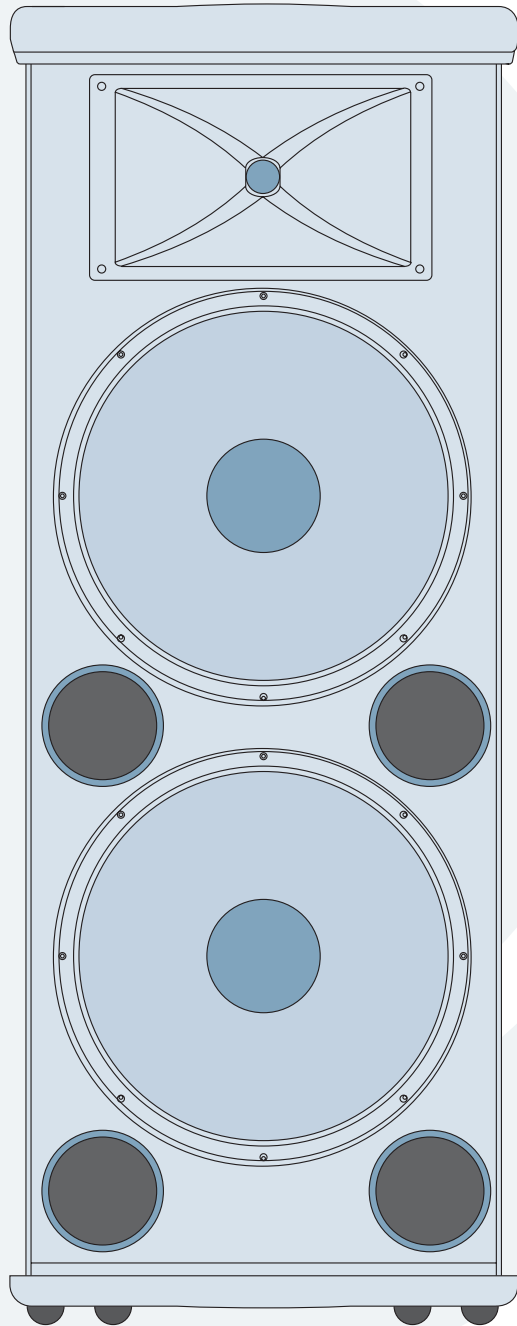




SR1522z REPAIR MANUAL



The LOUD Technologies Family of Brands





These instructions are intended to help restore any ailing SR1522z Active Loudspeaker back to factory working conditions. They show how to remove and replace the drivers and the amplifier assembly.

Please contact Mackie Tech Support (1-800-898-3211) to receive a Service Request Number and Order Number for parts needed for this restoration. They will also help you determine the nature of the problem and what parts will repair the unit.

Tools needed:

NOTE: not all tools listed below will be needed for your repair

- Phillips head screwdriver.
- 3mm and 5mm allen wrenches.
- 8mm open end wrench.
- Solid workbench.
- Non-carpeted work area due to static electricity. If available, an ESD mat (Electro-static discharge) is optimal.

Parts needed:

NOTE: not all parts listed below will be needed for your repair

- | | | |
|-------------------------|-------------------|-------------|
| • Led PCB Assembly | Part #0007334 | pages 3-4 |
| • 15" Woofer (Bottom) | Part #0013913 | pages 5-6 |
| • 15" Woofer (Top) | Part #0013913 | pages 7-9 |
| • High Frequency Driver | Part #0008093 | pages 10-13 |
| • Diaphragm | Part #coming soon | pages 14-15 |
| • Amplifier Assembly | Part #0014138-00 | pages 16-19 |

Safety Warnings:

- Make sure that you turn off the unit and disconnect the power cord (and all other cords) before you begin these procedures.
- Always use safety glasses!
- Please try NOT to touch any of the pcb circuitry, capacitors, resistors, etc.
- Take care to read and follow these instructions. It may help to read the instructions prior to the repair to get an idea of what it entails.
- Before beginning the repair, touch metal to discharge any lingering internal static electricity.

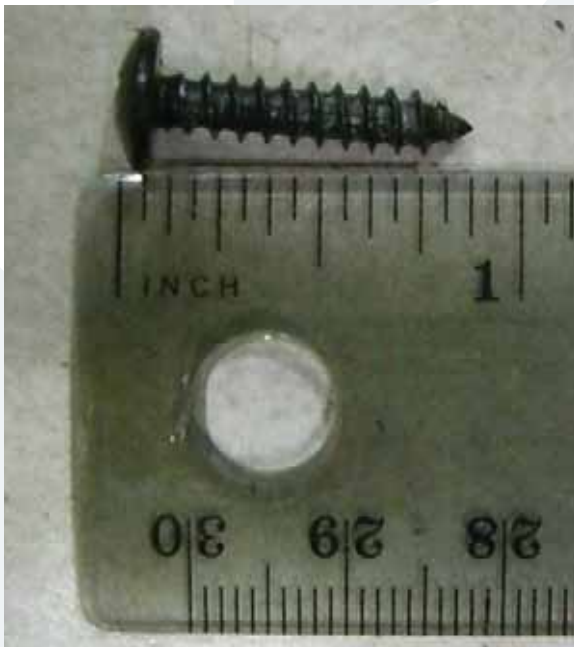




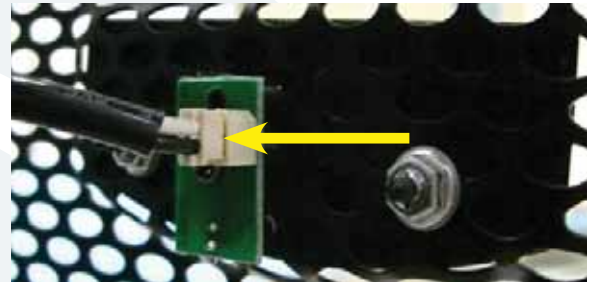
Led PCB replacement:



1 Five screws need to be removed from each side of the grill (ten screws total) using the phillips head screwdriver.



2 Keep the ten screws in a safe place.



3 Carefully begin to remove the grill. The grill has a tendency to want to "pop out," so please be sure to hold the grill in place with your free hand while removing the screws with the other hand. Do not fully remove the grill as the cable is still firmly attached to the led PCB assembly.



4 Carefully remove the cable attached to the led PCB assembly.



5 Use the phillips head screwdriver to remove one screw from the center of the led PCB assembly.





Led PCB replacement continued:



- 6** Carefully remove the led PCB assembly from the back side of the grill.

- 7** The hard part is done, the rest is easy! Place the new led PCB assembly (part #0007334) where the old one was. Follow the same steps as above, but backwards 6 to 1. Power up the SR1522z and the led should light up. Congratulations, you just replaced an led PCB assembly...now go play some shows!

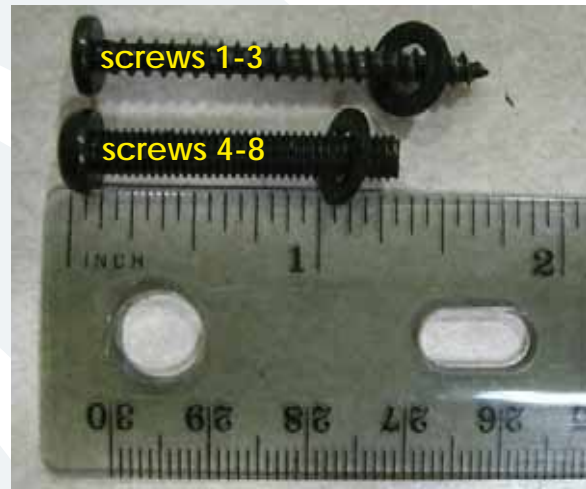


Bottom woofer replacement:

1 Follow steps 1-4 of the led PCB replacement instructions, as the grill will need to be removed in order to access the bottom woofer.



2 Eight screws and flat washers need to be removed from the woofer using the phillips head screwdriver.



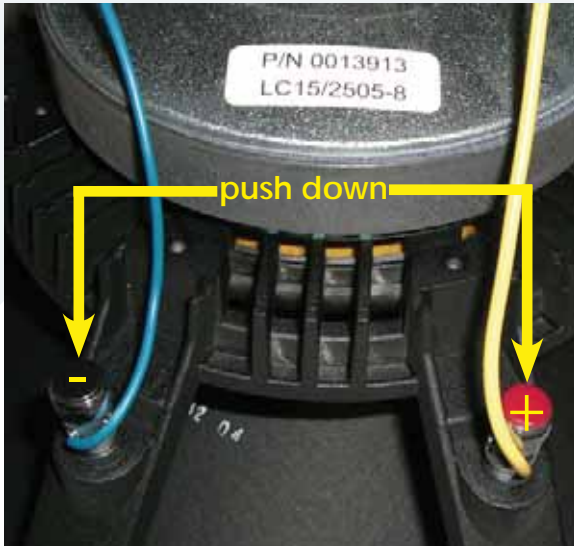
3 Keep the eight screws and flat washers in a safe place. Note: There are two different screws that connect the woofer to the cabinet.



4 Carefully begin to remove the woofer. A flat head screwdriver may aid in loosening the woofer by prying between it and the cabinet. Hold the woofer in place with one hand while prying around the edge with your free hand.

Caution: The woofer is approximately 11 pounds with the weight unevenly distributed.



**Bottom woofer replacement continued:**

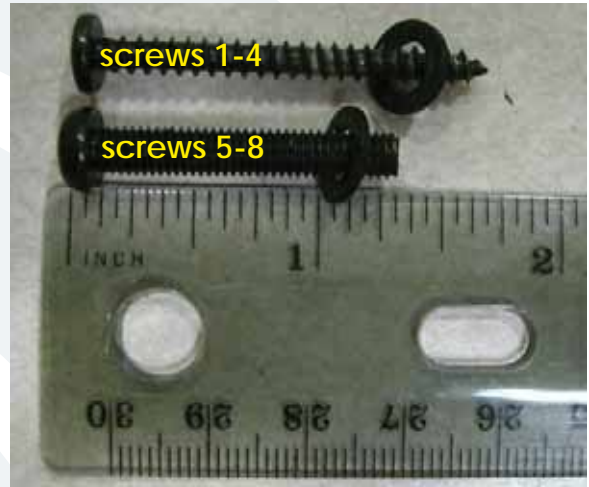
- 5 The positive (solid yellow) and negative (solid blue) cables are still attached to the woofer terminals. Remove the cables from their terminals simply by pushing down on the terminal and pulling out the cable.
- 6 The picture to the right shows what the SR1522z looks like with the grill and bottom woofer removed. Place the new woofer (part #0013913) where the old one was. Follow the same steps as above, but backwards 5 to 1, making sure to keep the led PCB assembly cable in front of the woofer. Power up the SR1522z and the new woofer should now be pumping out glorious lows. Awesome, you just replaced a 15" woofer!





Top woofer replacement:

1 Follow steps 1-4 of the led PCB replacement instructions, as the grill will need to be removed in order to access the top woofer.



3 Keep the eight screws and flat washers in a safe place. Note: There are two different screws that connect the woofer to the cabinet.

2* Eight screws and flat washers need to be removed from the woofer using the phillips head screwdriver.

* The grill support (located just above screws 7 and 8) does not need to be taken off in order to remove and replace the top woofer. However, it would certainly make the repair slightly more manageable. Directions for removing the grill support may be found on page 9.





Top woofer replacement continued:



4 Carefully begin to remove the woofer. A flat head screwdriver may aid in loosening the woofer by prying between it and the cabinet. Hold the woofer in place with one hand while prying around the edge with your free hand.



Caution: The woofer is approximately 11 pounds with the weight unevenly distributed.



5 The positive (solid blue) and negative (solid black) cables are still attached to the woofer terminals. Remove the cables from their terminals simply by pushing down on the terminal and pulling out the cable.



6 This is what the SR1522z looks like with the grill and top woofer removed. Place the new woofer (part #0013913) where the old one was. Follow the same steps as above, but backwards 5 to 1. Power up the SR1522z and the new woofer should now be pumping out glorious lows. Awesome, you just replaced a 15" woofer!

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Top woofer replacement continued:

- * The grill support (located just above screws 7 and 8 and outlined below) does not need to be taken off in order to remove and replace the top woofer. However, it would certainly make the repair slightly more manageable. Directions for removing the grill support are as follows:



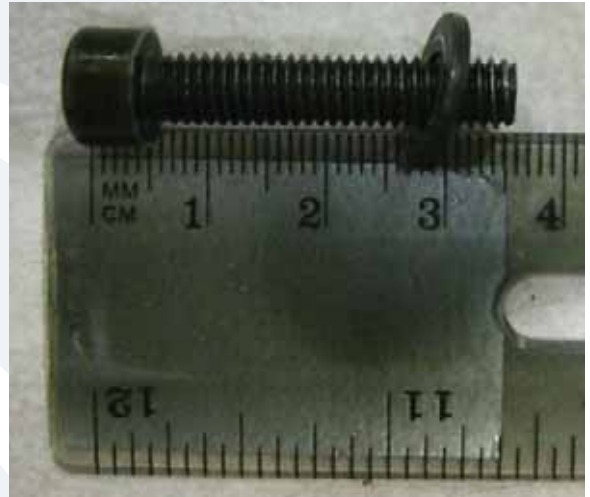
- 1 The grill support is covered with a rubber strip. The four screws may be accessed by either: (1) peeling back the rubber strip, or (2) puncturing a hole through the rubber strip where the screws are located with the phillips head screwdriver. The grill support is easily removed by pulling it off of the cabinet. Don't forget to screw the grill support back in place once the woofer is replaced!





High Frequency Driver replacement:

1 Follow steps 1-4 of the led PCB replacement instructions, as the grill will need to be removed in order to access the high frequency driver.



3 Keep the four screws and flat washers in a safe place.



4 Carefully begin to remove the entire horn assembly (with the high frequency driver still attached).



Caution: The horn weighs about 5 pounds, and the weight is unevenly distributed.

2 Four screws and flat washers need to be removed from the horn using the 5mm allen wrench.





High Frequency Driver replacement continued:



- 5** The positive (solid blue) and negative (blue and black) cables are still attached to the high frequency driver terminals. Remove the cables from their terminals simply by pushing down on the terminal and pulling out the cable.



- 6** This is what it looks like with the grill and horn removed. See the next page for further instructions and additional pictures on how to remove and replace the high frequency driver.



High Frequency Driver replacement continued:



8 Keep the four nuts, four locking washers, and four flat washers in a safe place.



7 Four nuts and eight washers may be removed from the driver using the 8mm open end wrench. Turn counter-clockwise to loosen and remove, clockwise to tighten. The other three are located around the horn assembly. Lift the horn up as the nuts are loosened. It cannot be removed otherwise. Notice that the flat washer is on the bottom, followed by the locking washer, and finally the nut.

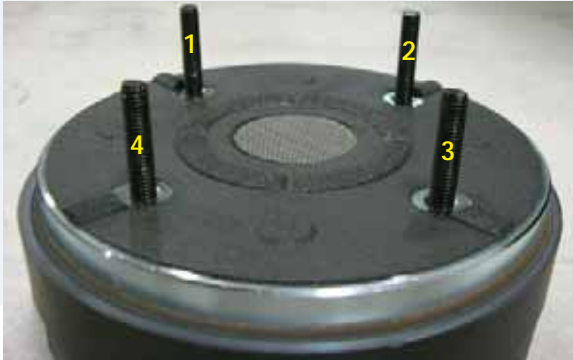


9 The horn assembly should easily lift right off of the high frequency driver.





High Frequency Driver replacement continued:



- 10** Four headless screws need to be removed from the high frequency driver. Pliers could help if the screws are too tight. Turn counter-clockwise to loosen and remove, clockwise to tighten. Keep the four headless screws in a safe place. Place the new high frequency driver (part #0008093) where the old one was. Follow the same steps as above, but backwards 10 to 1. Power up the SR1522z and the new driver should now be pumping out those highs again. Fantastic, you just replaced a high frequency driver!



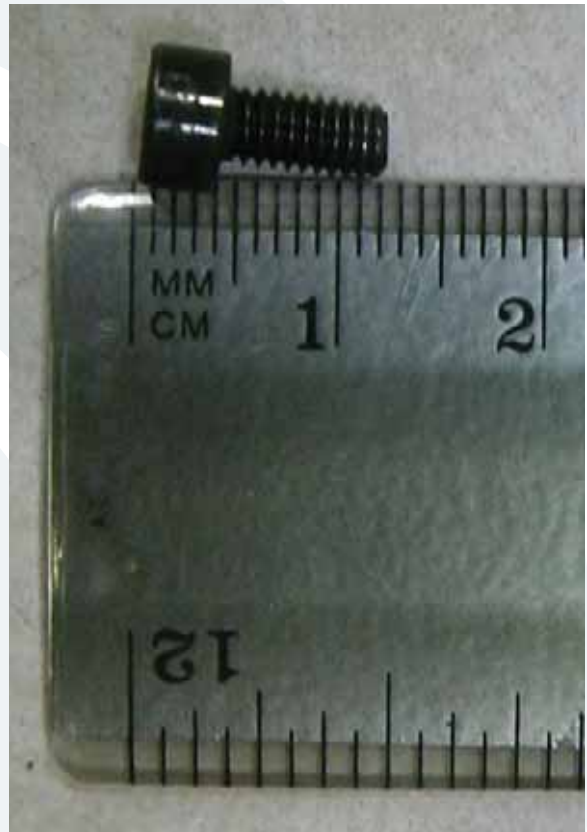
Diaphragm replacement:

1 At the present time (December 2006), diaphragms are not currently available, so you will have to replace the complete driver following the previous section (pages 10-13). If you have received a diaphragm, please follow the steps below.

2 Follow steps 1-5 of the high frequency driver replacement instructions, as the horn will need to be removed in order to access the diaphragm.



3 The horn assembly is shown above with the high frequency driver circled. Four screws need to be removed from the driver using the 3mm allen wrench.



4 Keep the four screws in a safe place.



5 The diaphragm and plate adapter are easily removed from the horn assembly.





Diaphragm replacement continued:



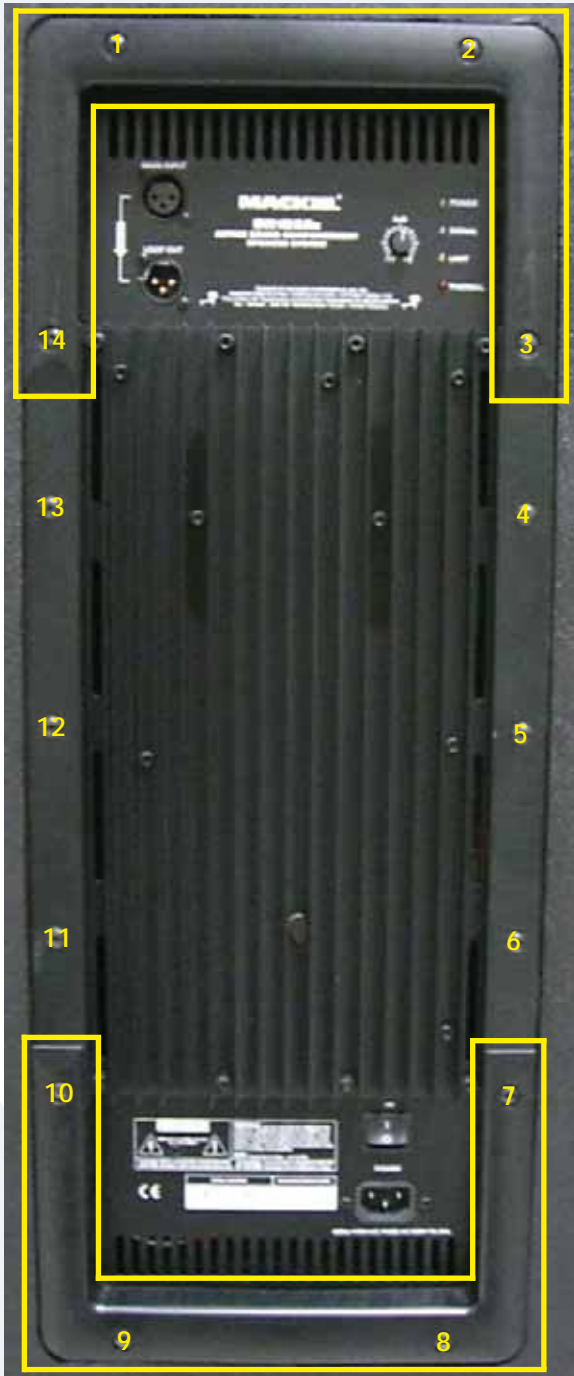
7 This is what the diaphragm (left) and plate adapter (right) both look like. Place the new diaphragm (part # coming soon) where the old one was. Follow the same steps as above, but backwards 6 to 1. Power up the SR1522z and the new diaphragm should now be pumping out those highs again. Sweet, you just replaced a diaphragm!

6 This is what the plate adapter and diaphragm look like after they have been removed from the horn assembly. The diaphragm is separated from the plate adapter simply by pushing down on the terminals.

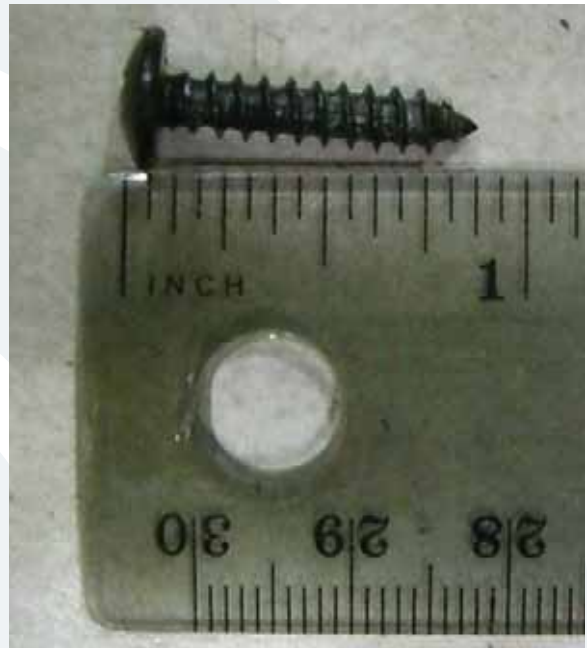




Amplifier Assembly replacement:



1 Fourteen screws need to be removed from the amplifier assembly using the phillips head screwdriver. The amplifier assembly is capped by two cover plates outlined above.



2 Keep the fourteen screws in a safe place.



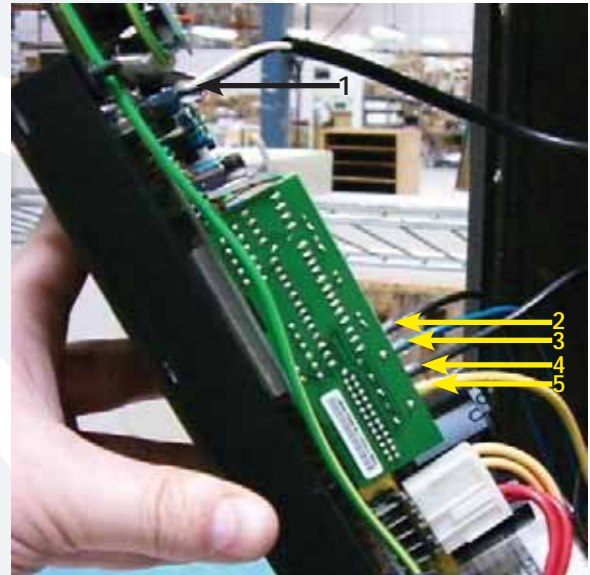
3 The covers may be worked loose by wedging a flat head screwdriver in between the cabinet and the cover, as well as the amp assembly and cover. Make sure to get around the entire cover plate in order to liberate them.



Amplifier assembly replacement continued:

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- 4 Once the two cover plates are removed, two more screws need to be taken out in order to separate the amplifier assembly from the cabinet. Keep the two screws in a safe place.

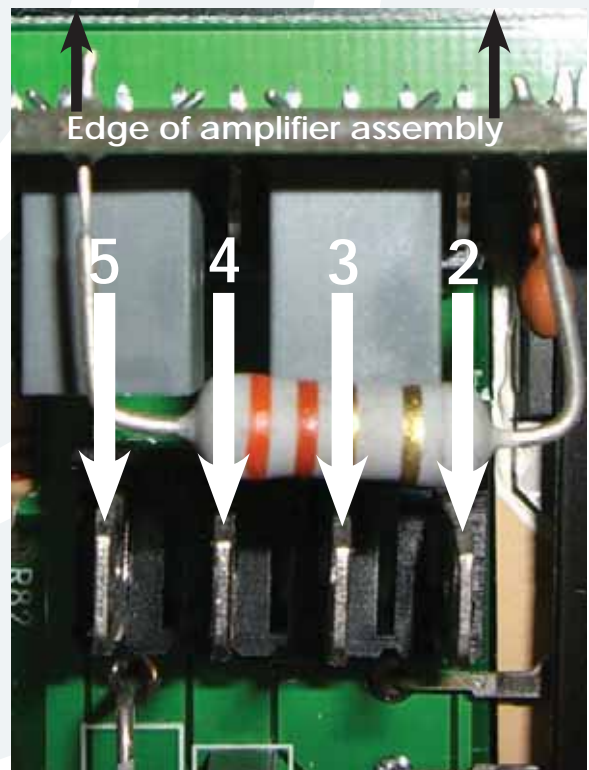
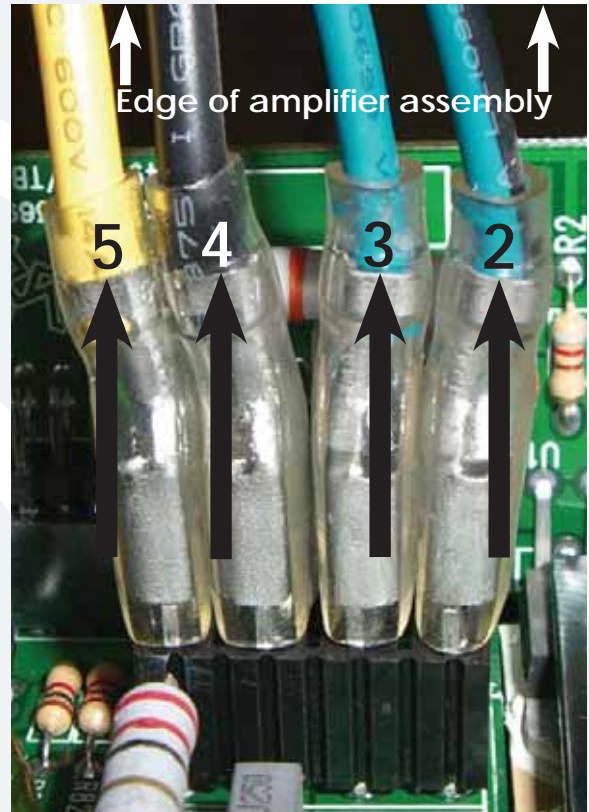
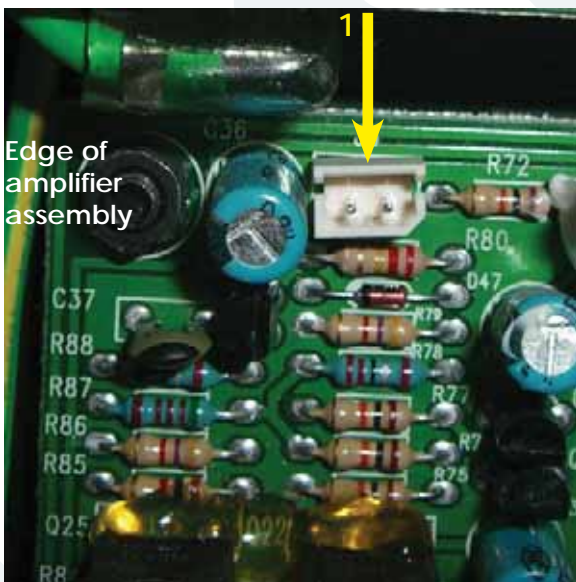
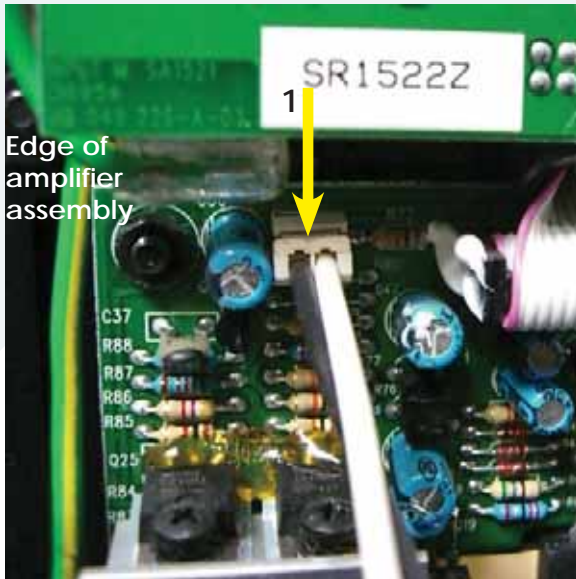


- 5 The amplifier assembly is now ready to be separated from the cabinet. Do not completely take the amplifier assembly off yet, as five cables need to be removed first (as shown above): (1) led PCB cable, (2) blue and black, (3) solid blue, (4) solid black, and (5) solid yellow. Do not force cable removal or connection, although needle-nose pliers may aid in loosening the crimped cables.



Caution: The amplifier assembly is approximately 18 pounds, so please make sure to grasp it firmly.

Amplifier assembly replacement continued:

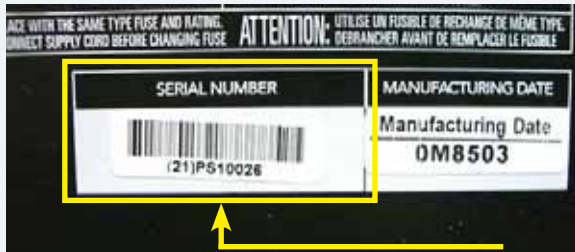


6 Closeups of the led PCB cable and connector are shown above. The black wire of the cable is closest to the edge of the amplifier assembly. The cable only fits in one way.

7 See the pictures to the right for the closeups of the woofer and high frequency driver terminals. Make sure the cables are reconnected to the same terminals they were removed from (but on the new amplifier assembly). Once again, they are: (2) blue and black, (3) solid blue, (4) solid black, and (5) solid yellow. Do not force cable removal or connection, although needle-nose pliers may aid in loosening the crimped cables.



Amplifier assembly replacement continued:



8 Place the new amplifier assembly (part #0014138-00) where the old one was. Follow the same steps as above, but backwards 7 to 1. Remove the serial number from the faulty amplifier assembly (as shown in picture above) and place on the new amplifier assembly. Power up the SR1522z and relish in the fact that you just replaced an amplifier assembly. Hats off to you for a job well done!

9 Important: The faulty amplifier assembly must be returned to LOUD Technologies. The address should be on the return shipping label that was provided with the new amplifier assembly. If not, the return address is at the top of this page. Also, please write the order number and service request number (ex: 1046256-1203935) in big, black, bold numbers on the outside of the box. This helps expedite the return.