

# **The Speaker Exchange®**

[www.refoamkits.com](http://www.refoamkits.com) [www.reconingspeakers.com](http://www.reconingspeakers.com) [www.speakerex.com](http://www.speakerex.com)

## **Refoaming Instructions:**

You will need: refoam kit (foam, dustcap, shims, brown contact glue), utility knife, masking tape

1. Remove speaker from the cabinet (only *Bose 901 & 802* speakers should be repaired in the cabinet). Check continuity on the speaker before starting any work. Also check that the cone moves up and down to insure the magnetic gap is still centered. Mark the wires and terminals (positive and negative) before you remove the component so you will remember how to correctly reinstall it in the cabinet. The old foam can be messy and sticky so work on newspaper..
2. If you have a gasket, remove it if it is **OVER** the outer edge of the foam (but do not remove one under the foam if there is one) by inserting a utility knife (or chisel) under the gasket. Carefully pry around the gasket until it can be removed. You can reuse the original gasket or order new ones in most cases. *Advent and Dahlquist masonite rings* can become brittle so be careful not to break them during removal.
3. Peel or scrape the old foam from the speaker frame and cone and the original gasket if you are re-using it. Remove as much of the old glue as possible without damaging or cutting the cone. Do not use thinners or cleaning products. Clean any old foam fragments left behind.
4. In most cases, we suggest that you remove the original dust cap (center circle) see FAQ <http://www.reconingspeakers.com/faq/refoaming-faq-2/>. Do not remove the original dustcap on *Infinity Bullet woofers* or *Bose 901* or *802*'s, as you will have to center the foam for these models by eye, ear, and feel.  
Gently slice the center of the dustcap and work your way towards the outside of the dustcap (keep the blade horizontal so you do not cut the cone or voice coil leads underneath). Visually inspect to make sure the voice coil has no obvious burns, unraveled windings or bend marks.. (Any of these situations would require reconing not refoaming.) Use masking tape to remove any dirt that might be on the inside of the voice coil or in the voice coil gap.
5. Insert vertical strips (about 1/8-1/4" wide) of shim material inside the voice coil wall in between the voice coil and magnet pole piece. This will help to keep cone/voice coil assembly centered for the refoaming process. Insert them (12:00, 6:00, 3:00, 9:00 etc) until the cone assembly is secure. Be sure they are evenly spaced no matter how many you end up using. Check to insure that the cone and spider assembly are at a natural height and not sunken or elevated.
6. Place the new foam surround on the speaker to check for proper fit to the cone and frame. The exact size foam might not be available so you may need to cut, overlap and seam the foam <http://www.reconingspeakers.com/faq/how-to-find-a-smaller-foam/> if it is slightly too large and/or trim the outside with scissors. When we refoam, we glue the new foam in its original place, but you might find it easier to refoam to the front of the cone even if the original foam was attached to the back of the cone. (*Advent or Dalquist woofers with masonite rings* must have the foam returned to the original location.)
7. Spread a thin, flat bead (spread with glue tube tip or pen or brush) of glue to the edge of the cone. **DO NOT APPLY GLUE TO FOAM.** (Glue applied directly to foam can cause foam to curl and be very difficult to work with.) Allow the glue to begin to dry and get tacky. Center the new foam onto cone and gently apply pressure with your finger beginning at the 12:00, 6:00, 3:00 and 9:00 positions. If the new foam is centered correctly, then you can move your finger in a full circle to secure it. Apply glue to speaker frame, let it get tacky and then do the same to attach the foam to the frame.

8. You may need to trim new gaskets to the correct size. Spread glue on gasket and when tacky, install. You can tape in position. If the gasket is taller than the foam, you can carefully turn the speaker upside down on a flat surface to dry. Do not slide. Do not change alignment of foam or gasket. If the foam is taller than gasket, leave speaker face up and place same size component on top of speaker. If you are installing gaskets, then you can use masking tape or clamps to secure. Wait 24 hours and then remove shims from voice coil. Lightly tap to test that cone moves up and down without scraping or grinding. Install new dustcap. It can be larger than the original.

Not all speakers are good candidates for refoaming. The remaining voice coil, spider and cone must be in good shape for refoaming to be successful. **If your speaker does not move freely, you might need speaker reconing.** This is the removal and replacement of all the moving parts in the speaker frame including the voice coil, cone, spider, surround, dustcap, leads and gasket. In most cases, this returns the component to exact new or upgraded specifications. Call or email us for pricing and more info.

These instructions can also be found at [www.refoamkits.com](http://www.refoamkits.com). Color pictures too! While there, take a look at the FAQ. They can help provide info you might need. Also, go to the site if you need to cut and seam reducing the OD of the foam or if you have special Styrofoam cone requirements.



pry off gasket



clean old foam from cone



cleaned frame and cone



carefully cut dustcap



remove dustcap



evenly insert shims



adjust cone to proper height



apply glue to cone & frame



size and apply foam



glue and tape gasket



remove shims & install dustcap