RECONE/REDIAPHRAGM PROCEDURE

TOOLS AND SUPPLIES REQUIRED

Gap gauges, glue gun, glue, masking tape, soldering iron, solder, methyl ethyl ketone (MEK), cloth rags, plastic voice coil spacer tube(s), dome weights, tweezers, wire cutters, razor knife & blades, cotton swabs, phillips screwdriver, magnifying light, small mallet audio oscillator and amplifier, cardboard diggers (cut pieces of cardboard that are approximately 25 mm X 75 mm X 1 mm).

RECONING PROCEDURE

A. Preparation

1. Using razor knife, remove old cone/coil assembly and clean all surfaces where spider and compliance will mount of old glue.
2. Use gap gauge to check for proper size and alignment.
3. Check frame for tightness to magnet, cracks or warp.
4. Unsolder the old voice coil leads from terminals, and check the terminals for tightness and alignment.
5. Inspect new cone/coil assembly for shipping damage, etc.

B. Installation

1. Fold piece of masking tape lengthwise around cardboard "digger" with adhesive exposed. Insert in gap and rotate. Repeat until tape remains clean when withdrawn. Check gap with magnifying light. Clean top plate area of any debris.
2. Using glue gun, apply bead of glue on frame surfaces where spider and compliance will mount.
3. Fold voice coil spacer tube and insert inside new voice coil assembly, allowing overhang below bottom of voice coil. Slide spacer tube over pole piece and down into gap, making sure tinsel leads on assembly are aligned to terminals on frame. Carefully guide voice coil assembly down spacer onto frame and into proper position. Do not force.
4. Take a small rag dipped in MEK and use it to press down on spider where it joins to frame. Work back and forth to even out spider and secure bond to frame. Repeat for compliance, working out bumps.
5. Use tweezers to guide tinsel leads through solder lugs. Allow enough slack for full cone excursion, but do not allow leads to touch (short). Solder leads to terminals and trim excess.
6. Allow glue 24 hours to dry, and then carefully pull out voice coil spacer tube. Unit can be sound tested at this point.

C. Gasket Installation and Doming

1. Place gasket segments on frame to check for proper fit and alignment. Remove gasket pieces, and lay bead of glue on horizontal mounting surface. Install gasket.
2. To install dome, first use glue gun to place a bead of glue around cone collar. Be careful, too much glue may drip down inside of voice coil, and too little glue may cause a loose dome. Use glue gun to cover leads on cone face. Center dome onto cone. Apply another bead of glue at junction of cone and dome. Clean up excess glue with cotton swab and MEK. Place padded weight on top of the dome and allow to dry.
3. After glue is thoroughly dry, sound speaker with oscillator and amplifier.

REDIAPHRAGM PROCEDURE

A. Preparation

1. Check unit for damage (cracked throat, shifted top plate, etc.). Remove front cover and old diaphragm assembly. On ring radiators, remove inner cone and outer horns and unsolder old diaphragm.
2. Using gap gauge, check gap for size and alignment.
3. On 2-inch throat drivers, tap on top of phasing plug. The unit should make a solid sound. A "hollow" or "clicking" sound indicates a loose phasing plug.

B. Diaphragm Installation

1. Fold piece of masking tape lengthwise around a cardboard digger with adhesive side exposed. Insert in gap and rotate to clean out debris. Continue cleaning until tape is clean when withdrawn. Inspect visually with magnifying light.
2. Inspect new diaphragm for damage. Line up holes in diaphragm to mounting pins on the driver. Carefully lower assembly into place. Replace diaphragm mounting screws. On ring radiators, solder leads to terminals.
3. On drivers, hook unit up to oscillator set at 3-4 volts at proper frequency (550 Hz on 1-inch drivers, 350 Hz on 2-inch drivers). Listen for buzzing. Use small mallet to tap lightly on side of diaphragm frame until unit is centered in gap and buzzing ceases. Tighten down diaphragm mounting screws.
4. Reconnect terminal leads onto diaphragm assembly and replace cover. On ring radiators, replace inner and outer horn.
5. Perform final sound test.

C. Diaphragm Installation for Models 2425, 2426, 2427, and 2445*

1. Fold piece of masking tape lengthwise around a cardboard digger with adhesive side exposed. Insert in gap and rotate to clean out debris. Continue cleaning until tape is clean when withdrawn. Inspect visually with magnifying light. Inspect new diaphragm for defects or damage.
2. Remove cover gasket to expose JBL name that is stamped into the top plate. Using both hands, carefully position diaphragm mounting holes in alignment with top plate mounting holes, and in put terminal with polarity marking aligned with JBL name in top plate. Polarity marking for 8 ohms will be green, and for 16 ohms the marking will be red. **Warning: do not rotate the diaphragm while the voice coil is in the gap.** With mounting holes and polarity marking positioned correctly, carefully lower the diaphragm into top-plate recess. Be sure the base of the diaphragm mounting ring is positioned flush to the surface of the top-plate recess. Insert mounting screws and hand tighten.

*NOTE: Some 2445 top plates may be stamped with an 'X' in place of the JBL logo.