

Scan-speak has taken speaker design to a new level with the **Revelator** line. Every detail has been painstakingly worked out over many years of development, using the most advanced engineering concepts.

- Innovative Engineering
- Beautiful by Design
- Danish Craftsmanship

It is comforting to know that Scan-speak continues to produce some of the best engineered speakers in the world. It has taken many years for Scan-speak to acquire its knowledge, something that is not easily copied.

## R2904/7000 Tweeter



Ring Radiator tweeter, truly unique in design: 4 ohm, 94.5dB, 2k-40kHz.

## 12M/4631G Midrange



4.5" midrange. Slit paper cone with low loss linear suspension and neodymium magnet. 4 ohm, 89dB, 75Hz to 8000Hz

## 15W/4531G Woofer



5.5" woofer. Slit paper cone with low loss linear suspension. 4 ohm, Fs 39.5, 87dB, 40Hz to 6000 Hz. Also available as mid.

## 18W/4531G Woofer



7" woofer. Slit paper cone with low loss linear suspension and SD-1 motor. 4 ohm & 8 ohm, Fs 33, 90dB, 35Hz to 5000Hz.

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ing the compression of the sponge, or larger changes by adding or subtracting half lengths to the full sponges. Do the adjustments one at a time. Adding sponge material or increasing compression of the sponge in a tunnel will generally increase the measured impedance at the tunnel frequency, and decreasing the sponge material or compression in a tunnel will decrease the measured impedance.

The low frequency tunnels also affect frequency areas where the tunnel is one half wavelength long, twice the tuned frequency. A half wavelength pipe, closed at one end, reflects a closure at the open end, effectively removing the volume of the pipe from the system. The magnitude of this effect is determined by the Q of the pipe. Thus, increasing the Q (removing the sponge) from the 30Hz tunnel will increase the efficiency of the 58.8Hz tunnel.

## ASSEMBLY JIGS

Figure 17 illustrates two jigs that I used to ease assembly. Sizes given are approximate. Critical measurements are the 90° angles shown and the height of the layer assembly jig uprights (not less than 15"). The wall-mounting jig or a commercial equivalent is a must. The layer assembly jig makes layer alignment accurate and easy and is highly recommended. A jig for the freestanding corners was mentioned in the text and is nothing more than a mini version of the wall-mounting jig.

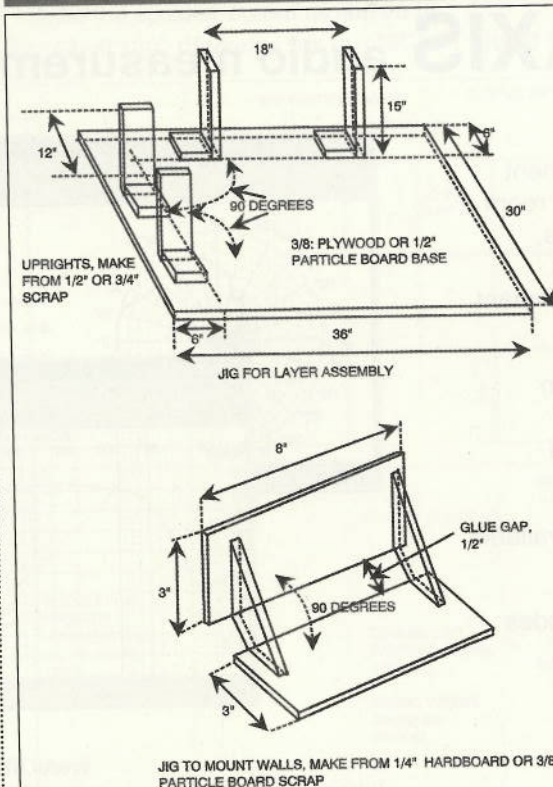


FIGURE 17: Assembly jigs.

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Once the tuning is satisfactory, remove the driver, put a tail on the sponge in the 58.8Hz tunnel, and staple the tails to the bottom or sides of the plenum. Loosely fill the plenum with fiberfill, check the connections to the driver, remove the tape over the mounting holes, and screw the driver in place.

## FINISH

I had the finished unit sprayed in a bedliner shop. This finish, which has become popular with small bands for their equipment, is extremely durable and easy to care for, and the black crinkle finish looks good. Mine was done by Inyati of Phoenix and ran about \$4.50 per square foot. Lacquer or paint finishes should be applied before tuning.

The bedliner coating only requires that the driver and the connector insert be removed and can be done after tuning. You can stuff the insert inside so you do not need to remove the wires. The shop will cover the holes so that the inside is not sprayed.

## SETUP

Set your crossover to sum the low-frequency outputs. Set the crossover frequency in the range of 50-100Hz.

The subwoofer has a sensitivity of 88-89dB. If your stereo pair has a sensitivity of 90-92dB, set the output of each high-frequency channel to 5 or 6dB below the output level of the summed low-frequency channel. For frequencies below 130Hz or so, you will see a 3dB gain from the stereo speakers at your listening location so these settings should result in a channel balance within a few dB. Note that a 12-18dB per octave crossover is recommended.

Center the sub between your stereo pair and the same distance from your listening location; I generally start with the driver pointing up. Put on some music that contains a fair amount of bass and midrange or your favorite