

## Altec bass drivers series 515B, 416A, 416Z, 416-8A, 416-8B, 515-8G.

The Altec 15 inch speakers I am selling are in perfect condition, I never buy reconed speakers.

The speakers all have the original cone numbers stamped on the back, that is  
from 21184 to 21184-4 for the latest 416-8B and 515B/C versions.

There will be no faults on cones, spiders, surrounds and voice coils.

The speakers are cleaned for too much impregnation of the surround - "clots" - in the front bottom of the surround, as well as dogs hair, cats hair, dust, wooden saw rests, sticking to the impregnation. I have bought more than 50 units, so I have seen everything.

The Altec impregnation of the cloth surround was unfortunately produced with too much tolerance in the production, giving some problems years after, on the units with too thick a layer. In very hot summers, the impregnation started to run down the surround from the top, and ended in the bottom of the surround, and I have seen impregnation filling up 2-4 inches wide, and completely bury the 4 waves in the surround. This is what I call a "clot".

This is most unfortunate, as this impregnation gets like rubber when the temperature drops to normal again. This blocks the cone movement in this area, and the cone free air resonance will be raised, typical 3-5 Hz, to app. 30 Hz. Altec specified free air resonance to nominal 25 Hz leaving production. This is for the 515B and 416 series. The 515-8G is specified 37 Hz from Altec.

Another drawback by this is that it also affects the high compliance of the moving mass in negative direction, as the cone gets more stiff.

The high compliance is a characteristic aim by Altec bass driver designers, for the very low moving mass of 58 grams, and the high Altec sensitivity.

I have developed a methode to remove "clots", surplus impregnation, dirt, dogs hair, cats hair, and whatever might stick to the surround, in a very gentle way, leaving a good looking clean cone, with a lower free air resonance than when the speaker left Altec, typically 20 – 22 Hz, I have speakers with 18-19 Hz resonance, and with restored high compliance, even a little better than original, also because surround and spider softens versus age, on oldest versions.

I will state free air resonance with 1 decimal and voice coil resistance with 2 decimals (1% tolerance) on sold items, e.g. 21,2 Hz and 6,59 Ohms.

It is all to our advantage. I will write a small article on my website later, telling how and why it is so important to have free air resonances in the 20 Hz range, to get that really deep bass. Both for horns and bass reflex cabinets.

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