

Hi Steve

Please find enclose one Gel Lozenge for use with the V1000 simulator.

I have fitted this lozenge to our V1000 and have obtained excellent results in relation to the audio output from a Philips Avelon FM20 CTG. I have enclosed the charts from this monitor obtained with the simulator set to the auto mode, it has performed perfectly on all heart rates.

To fit the lozenge to an existing V1000 the fluid envelope should be removed along with the black gasket. The lozenge should be carefully teased away from the backing paper and gently with a set of tweezers should be placed in to the active area of the piezo speaker. The lozenge will adhere to the speaker. The pcb containing the speaker should then be fitted to the top casing, sandwiching the gel lozenge between the pcb and the inner face of the top casing. The pcb should be flush with the plastic screw mounts of the case and held in place with the 4 retaining screws.

The gel lozenge has been made slightly thicker than the gap between the piezo speaker face and the top case face, this allows for the gel to provide good ultrasound coupling.

I have enclosed a few photos showing the gel lozenge in place on the active area of the piezo speaker. We have made custom moulds for the correct size and sourced an alternative stable gel of the correct viscosity to enable coupling to take place. We would envisage being able to produce and supply these gel lozenges on a commercial basis for £70 per unit. The advantages are that the gel lozenges are stable and will not degrade with time and provide excellent coupling which produces good audio output from CTG monitors. Also theses lozenges eliminate the need for the gasket as they are adhesive and self anchoring. The gel lozenge is a great improvement on the coupling (oil) envelope and will never leak and damage the inside of the simulator. As you mentioned the coupling envelopes and gaskets are quite labour intensive to make, so using the gel lozenges will eliminate these labour costs.

Please fit and evaluate the sample gel lozenge and let us know your findings.

Regards

A handwritten signature in black ink, appearing to read "D. Breslin".

Dave



