

## ELECTRONIC DEVICE FOR DETERMINING THE RESILIENCE OF FIBRO-MUCOSA OF PROTECTIVE FIELD OF THE MOUTH

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The electronic device for measuring resilience of fibro-mucosa of protective field of the mouth contains the mobile probe and a displacement element, pressure sensor and amplifier circuit [1-3]. The control circuit is based on a microcontroller that allows simple system control, decreases the complexity of synthesized control scheme, which allows entering commands from the keyboard, performing digital indication, upgrading the device by reprogramming new work functions.

It is not enough to possess modern materials for making a perfect dental prosthesis, but necessary to know the details and aspects of the protective field and, foremost, the resilience degree of fibro-mucosa, which comes in direct contact with the prosthesis. Throughout life, the resilience of fibro-mucosa changes permanently taking individual aspects.



For convenient use of the device in both laboratory conditions and less equipped devices, it possesses low power consumption provided by a power supply unit of 220V AC or 9V battery power, indicated by a green LED. Red LED generates a warning signal, indicating low battery voltage, below 7V, because the microcontroller needs minimum stabilized 5V power. Error measurements occur guaranteed at further galvanic element discharge.

Information about resilience of mouth fibro-mucosa is obtained using the mobile probe and its displacement element, which in turn exerts a force on the pressure sensor. Furthermore, the differential voltage, proportional to the displacement of the touch probe, is amplified using amplifier instrumentation and is inputted to the microcontroller, where analog to digital conversion occurs [4]. The resilience results are displayed on the LCD panel.

### Bibliography:

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